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Contact Addresses of the int.WOJDE

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From the Editor

Dear readers of int**WOJDE**

Welcome to the last issue of the year 2016, Women Online Journal of Distance Education, intWOJDE. First of all, greetings to all you and best wishes from intWOJDE team.

As known well intWOJDE aims to establish some more new channels of communication for the women in distance education world in general from the entire world to its specific target. So that, sometimes we are really in difficulties and sensitive for accepting and rejection the submission which are sent to intWOJDE

Among these goals of the intWOJDE there are to share experiences on effective use of distance education in formal and non-formal education, to provide a communication network among distance education experts in order to able to define new strategies for dealing with the issues of distance education for women. In international scope, this scholarly e-journal will publish refereed articles, researches, case studies, book/conference reviews focusing on the women issues and challenges of providing research and information services to women learners participated or enrolled at any of level of distance education. It will particularly strive to meet the continuing education needs of practitioners by providing a forum for the discussion of extended learning policies and practices, and trends in information technologies as they impact the delivery of any kind of the student support services for distance learners and institutions. And also, intWOJDE reflects that the disciplines of Women' position, benefits, advantages and disadvantages in Distance Education/Learning, Open Learning areas which are interdependent with one another, as education and technology increasingly affects our system, students, colleagues, distance educators, administrators, researchers and our own professional practice and articles ranging from theoretical to practical studies, across a wide range of interests and topics.

Than we are giving a place to women and DE some related sections such as "Notes for Editor", "Re-published Material/s" section which is aiming to inform you by presenting earlier printed articles, reports, project reports key speeches in conferences or other documents. Other one is "Success Stories" Section inform you success stories of the women who are DE learner or graduated from DE institutions and related subjects women in DE world. Another section is "Book review/s", which aims to inform you from literature and promote women and DE related books from the DE field. We started for a few issue before publishing "Interviews" section which we are planning to give a place some women expert's thoughts in this section. These experts are mostly selected from deal with any sectors who are successful in their professional carriers such as academics, administrators, lowers, artists, engineer etc.

In this issue, we decided to prepare and deliver two articles totally by 5 authors from Turkey and Nigeria. The first article is titled as "Women's Educational Problems and Distance Education", written by 4 authors. Yücel GELISLI from Gazi University, Gazi Faculty of Education Department of Educational Sciences, Ankara, TURKEY, Lyazzat BEISENBAYEVA, L. N. Gumilyov Eurasian National University, Philology Faculty, Astana, KAZAKHISTAN, Botagul A. TURGUNBAEVA,

Abai Kazakh National Pedagogical University, Almaty, KAZAKHSTAN, Gulnara Yeltayevna UTYUPOVA, Pavlodar State Pedagogical Institute, Pavlodar, KAZAKHSTAN.

In this study, the problems faced in women education and possible practices in women education are investigated and evaluated. This is a descriptive study in which the data is

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acquired via document review of the relevant field. Historical process, current problems in women education and possible practices are studied and evaluated. In this study, it is found that women still face educational problems and have lower rates of schooling compared to men. The fact that primary, secondary, higher education practices in Open University system bears importance for women who are deprived of education is another result found in the study.

The second article is based on technological race for women. It is titled as "TECHNOLOGICAL RACE: Distance Education Can Enhance Gender Equity for Women Education in Nigeria", written by Martha NKECHINYERE AMADI from Department of Educational Administration Faculty of Education, University of Lagos Akoka, NIGERIA.

Martha's paper elaborates on how distance education can expand the scope and coverage of education for women in Nigeria, using ICTs. Everything from traditional media to Web 2.0 to mobiles is the backbone of distance education. Developing the technology that is most appropriate for women in their own environment-community radio have a special place as to enhancing the quality of education of women. Aspiration for social and women education in Nigeria must be simultaneously built on the foundation of knowledge and skills through a system of delivery that reaches the women as appropriate for this present time.

Distance education tends to be regarded as a second best option, open to those who, for whatever reasons cannot enroll in face-to-face institution. Domestic burden, childbirths, raising children, cultural boundaries and socio-cultural values places women behind and serves as factors hampering women education. Women usually invest a higher proportion of their earnings in their families and communities than the men. Against this background, with ICT, women can be at home and build up their productive skills, obtain a degree and even earn a living- all online, while they have enough time to look after their children and take good care of the home.

With reprinted materials and reports section is very useful to all you, especially young researchers who are working women and DE area by informing them from earlies studies and with new published reports by NGOs, associations, unions and by research companies. In this meaning 5 reprinted materials/reports are presented here.
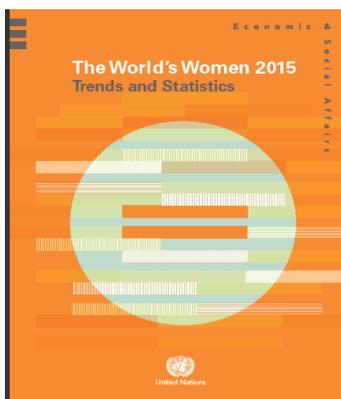
This issue's first republished report is titled as "The World's Women 2015 Trends and Statistics". Cited info is United Nations, The World's Women 2015: Trends and Statistics. New York: United Nations, Department of Economic and Social Affairs, Statistics Division.

The World's Women 2015: Trends and Statistics comes as the international community Marks the twentieth anniversary of the landmark Beijing Declaration and Platform for Action and looks forward to the adoption of sustainable development goals to guide our global fight against poverty through the year 2030. Women's advancement, equality and empowerment, so central to progress on the Millennium

Development Goals, remain indispensable to success. This report confirms that the lives of women have improved in a number of areas over the last two decades -but the pace has been slow and uneven across regions as well as within and among countries.

It commended that this publication to governments, researchers, scholars, non-governmental organizations and citizens around the world. We trust that all will use the

valuable information in these pages as we strive together to ensure that every woman enjoys her human rights and has the chance to achieve her full potential.

Second report is report the Joint Research Centre, the European Commission's in-house science service which is titled as "Opening up Education: A Support Framework for Higher Education Institutions". This publication is a Science for Policy. It aims to provide evidence-based scientific support to the European policy-making process.

The scientific output expressed does not imply a policy position of the European Commission. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of this publication. This report presents a support framework for higher education institutions (HEIs) to open up education. This framework proposes a wide definition of the term 'open education', which accommodates different uses, in order to promote transparency and a holistic approach to practice. It goes beyond OER, MOOCs and open access to embrace 10 dimensions of open education. The framework can be used as a tool by HEI staff to help them think through strategic decisions: pedagogical approaches, collaboration between individuals and institutions, recognition of non-formal learning and different ways of making content available. Contemporary open education is mostly enabled by ICTs and because of this, there is almost limitless potential for innovation and reach, which in turn contributes to the modernization of higher education in Europe.

The third report is titled as "Gender, Education and Population Flows" which has summary report on knowledge, cross‑Nordic experiences and examples from practice Kathrine Bjerg Bennike, Stine Thidemann Faber and Helene Pristed Nielsen". This report briefly summarizes the findings covered in existing Nordic research and literature within the field, and further presents the experience and professional responses, which were presented during a knowledge-sharing seminar for different stakeholders across the Nordic countries. Thus, the report provides a condensed presentation of the knowledge available within the field, while also providing a more practical source of inspiration for policymakers, other authorities and actors with respect to future actions in this area – locally, regionally, nationally and across the Nordic region.

The fourth report is Social Media in Northern Chile, *Posting the Extraordinarily Ordinary,* **Nell Haynes. In this report is perhaps, single most important finding. Most studies of the internet and social media are based on research methods that assume we can generalize across different groups. We look at tweets in one place and write about 'Twitter'. We conduct tests about social media and friendship in one population, and then write on this topic as if friendship means the same thing for all populations. By presenting nine books with the same chapter headings, you can judge for yourselves what kinds of generalizations are, or are not, possible. Our intention is not to evaluate social media, either positively or negatively. Instead the purpose is educational, providing detailed evidence of what social media** has become in each place, and the local consequences, including local evaluations.

The fifth report prepared by Niall Sclater on "Code of practice for learning analytics a literature review of the ethical and legal issues".This report presents a comprehensive review of the ethical and legal issues currently being reported on and likely to be encountered by institutions in their deployment of learning analytics. It is intended to form the groundwork for a consultation by Jisc with representatives from across further and higher education to develop a more Code of practice for learning analytics A literature review of the legal and ethical issues concise code of practice. This will provide clear guidance to institutions and reassurance to students and staff that developments in learning analytics are being undertaken legally and ethically, primarily for the benefit of learners. There may be something fundamentally different about learner data when individuals choose to engage in public environments or mass environments such as Massive Open Online Courses (MOOCs). Clearly the responsibilities of institutions are different in relation to data in systems such as Twitter than they are with data held in the institutional "walled gardens" of the student information system and the VLE. Esposito (2012) asserts that privacy seems to be less of a concern to researchers when the data is already publicly available. If the forums of a MOOC are visible to the public as well as enrolled participants there may be a greater acceptance that user activity and comments are subject to scrutiny and analysis.

The fact that a MOOC can take place in multiple systems may add to this. However, there is a registration process for MOOCs in Coursera and FutureLearn, for example, and non-participants cannot view forum postings and other data on learners so there would appear to be a greater responsibility on those MOOC providers to steward the data appropriately. Esposito believes that when learners post a message in a forum there is an assumption that the content will be read or archived. However, users may be less comfortable with their messages being subject to analysis by researchers and it may be better to obtain their informed consent for this in advance. The example is given of learners feeling "violated if they saw their posts de-contextualized and highlighted in a publication". There is the usual problem with quoting people here too in that some prefer their comment to be anonymized while others feel they should be acknowledged as the author.

They argue that it is generally regarded as appropriate to collect information without consent from physical public spaces where there is a reasonable expectation of observation by strangers.

However, they suggest that tweets, while readable by anyone with internet access, are individually attributable which makes them fundamentally different from observations on aggregate populations in a physical space. Twitter users, they propose, can expect a level of "anonymity of the crowd" to help manage their privacy; they give an example of someone who discusses his mental health.

Dear readers, in this issue you will read very interesting 3 books and one journal review. The first book review is titled as "Models For Improving And Optimizing Online And Blended Learning In Higher Education", written by by Jared KEENGWE and Joachim Jack AGAMBA, IGI Global, ISBN: 9781466662803, 2015, USA. Reviewed by Gülay EKREN, Sinop University, Sinop, TURKEY.
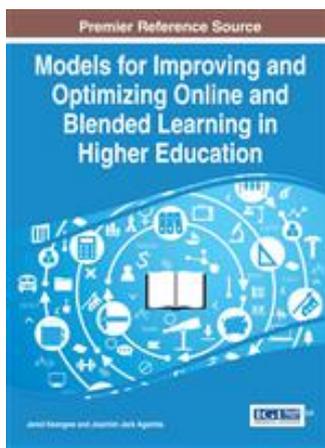
This book has fifteen chapters which focus on process models for online and blended learning, how these models support the

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teaching and pedagogical approaches as well as learning outcomes, and how these models help faculty to be successful in their teaching process. It emphasizes models and teaching options for delivering and designing courses using online and blended approaches. It also provides the benefits and limitations of Learning Management Systems or Course Management Systems. Faculty and institutions have a big responsibility to evaluate instructional practice related to the needs of different types of learners. It can be also more crucial for them to be able to transit from traditional delivery methods to technology mediated methods."

The second book review is HANDBOOK OF MOBILE LEARNING Edited by Zane L. BERGE and Lin Y. MUILENBURG, Routledge, Taylor & Francis, New York and London. First published in 2013. reviewed by Ugur DEMIRAY, UDEEEWANA. This handbook provides a comprehensive compendium of research in all aspects of mobile learning, one of the most significant ongoing global developments in the entire field of education. Rather than focus on specific technologies, expert authors discuss how best to utilize technology in the service of improving teaching and learning. For more than a decade, researchers and practitioners have been exploring this area of study as the growing popularity of smartphones, tablets, and other such devices- as well as the increasingly sophisticated applications they use- has allowed educators to accommodate and support an increasingly mobile society.

This handbook provides the first authoritative account of the theory and research that underlies mobile learning, while also exemplifying models of current and future practice. Four main parts are placed in the book In summary, parts and chapters are concerning a different aspect of M Learning world.
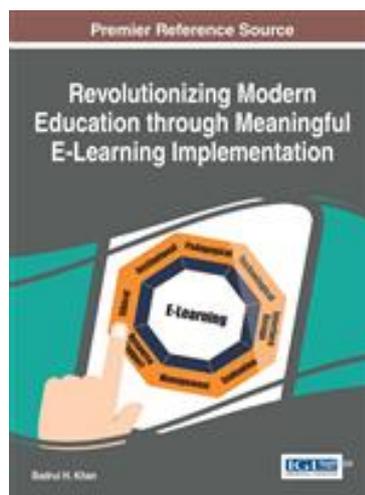
The 3rd book review on Revolutionizing Modern Education Through Meaningful E-Learning Implementation, Edited by Badrul Huda KHAN (McWeadon Education, USA) June, 2016, pp. 341. Reviwed by Ugur DEMIRAY, Anadolu Universty, Eskisehir, TURKEYIt is not enough for an instructor to merely present facts to their students; the presentation of information must be made accessible and understandable in the context of the student. As communication technologies become more widely available, traditional educational institutions are no longer the only source of information. What is now necessary is to reconsider what makes for meaningful education and apply those practices to digital natives. Revolutionizing Modern Education through Meaningful E-Learning Implementation evaluates the means by which online education can be improved and systematically integrated more fluidly into traditional learning settings, with special focus on the ethical, pedagogical, and design aspects of building online courses.

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This publication aims to elucidate the rewards and follies of online education for educators, administrators, programmers, designers, and students of education.

A new distance and open learning journal is appeared from Pakistan Allama Iqbal Open University, Pakistan. A New Distance Education Journal "PJDOL" journal of Distance & Online Learning (PJDOL)

Wellcome Pakistan journal of Distance & Online Learning (PJDOL) to the distance education world, published by Allama Iqbal Open University, Islamabad, Pakistan with 2515-2013 (print ISSN and 2415-2012 (online ISSN.

Pakistan journal of Distance & Online Learning (PJDOL) Pakistan journal of Distance & Online Learning (PJDOL) is a peer-reviewed journal of the Allama Iqbal Open University. It is biannual journal both in printed and online versions.

The journal publishes original papers, review papers, conceptual framework, case studies, empirical research and scholarly material in the fields of open, distance and flexible education.

Delicous interview on THE ROLE and FUNCTION OF DISTANCE EDUCATION WORLD FROM WOMEN'S PERSPECTIVE: Interview with Professor Dr. Gila KURTZ, MA program on ICT and Learning at the school of education at the College for Academic Studies, Israel for intWOJDE.

I addition in this issue you will find and read 5 women success stories from the field of Cathy, Sandra, Serpil, Sultana and Wivian's.

Dear readers, int.WOJDE wishes to add some new sections in int.WOJDE' body as "Notes for Editor" or a "Conference Review", etc. in its future issues as soon as possible. So we are waiting materials from you for fed these sections too in due course.

You can reach us online either directly at http://www.wojde.org to receive further information and to send your recommendations and remarks, or to submit articles for consideration, please contact intWOJDE Secretariat at the below address or e-mail us at intwojde@gmail.com

Hope to stay in touch and wishing to meet in our next Issue, 1st of January 2017
Cordially,

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WOMEN'S EDUCATIONAL PROBLEMS AND DISTANCE EDUCATION

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ABSTRACT

In this study, the problems faced in women education and possible practices in women education are investigated and evaluated. This is a descriptive study in which the data is acquired via document review of the relevant field. Historical process, current problems in women education and possible practices are studied and evaluated.

In the study, it is found that women still face educational problems and have lower rates of schooling compared to men. The fact that primary, secondary, higher education practices in Open University system bears importance for women who are deprived of education is another result found in the study.

Keywords: Women, women and education, distance education, women distance education

INTRODUCTION

Developments about women education started with the republic period. During and before the Ottoman period women education remained relatively restricted and primary education was provided via infant schools or private courses within the family. However, secondary education was not provided. With the innovation act in the Tanzimat Reform Era Ottoman Empire first by opening "Inas Rustiye" (Girls' Secondary School) in 1857, then "Darulmuallimat" (Women's Teacher School) and "Istanbul Darulfunun" (Istanbul University Girls' Department) in 1874, higher education was provided to a small number of women. (Gelisli, 2005)

Republic administration took any precautions for the educational, social, cultural and economics development of woman citizens. Women gained the right to elect and be elected with Turkish Civil Law in 1926. After the declaration of republic, coeducation started at primary schools in1924, in secondary schools in 1927 and all schools were opened for girls, too. Atatürk brought equity of man and woman, via introducing many innovations.

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Ataturk stressed four basic issues in his speeches.

- ✓   **Woman and man should be equal in education**
- ✓   **Woman's primary concerns are motherhood.**
- ✓   **Woman should be in every aspect of social life.**
- ✓   **Woman should be equipped with strong knowledge and should be virtuous in order to perform her motherhood and her role in the social life (Kayadibi, 2003).**

In the later years of the republic, some regulations about woman education took place. There are also clauses in the constitution that stress equality for girl-boy all children regarding access to education. According to 42th clause of constitution "primary education is compulsory for boy-girl all citizens and state school are free". The 1739 numbered Basic Law of National Education 4. Clause, it is stated that "Educational constitutions are open for anybody regardless of their language, race, gender and religion. There is no privilege for anybody, family or group". In the Basic Law of National Education clause 4 it is stated that education is provided to anybody regardless of their language, race, gender and religion and in the clause 8 it is stated that there is equality of opportunities for male female every citizen. In 2012, with a change in the clause in question, compulsory education was regulated 12 years as 4 year primary school, 4 year secondary school and 4 year high school. It is basic duty of Ministry of National Education to provide every student with compulsory education, equality of opportunities and remove obstacles for education. Ministry of National Education is also responsible to actualize these goals via supporting and developing national and international projects. (Tunc, 2009, Tor, 2016). With these regulations, constitutional rights are presented to women without any gender discrimination.

Turkey has also legitimatized women's educational rights by signing international agreement. In the 1989 United Nations Convention of the Rights of the Child, World Summit for Children and 1990 World Declaration on Education for All and many other documents and agreement it is accepted that education is a basic human right. As a basic educational strategy, is projected that everybody should at least take education at a primary level. (Tunc, 2009)

Turkey guaranteed to develop policies and regulations about women education with engaging in Convention on the Elimination of All Forms of Discrimination against Women (1985) and Turkey Children Right Agreement (1990). Convention on the Elimination of All Forms of Discrimination against Women is one of the most important human right document regarding equal access and equal opportunities. In the clause 10 titled "Right to Education", liable parties are to provide women with equal educational right with men and remove any obstacle hindering women to have educational rights.

Turkey ensured to reach a 100% of women literacy in parallel with the agreements stated above (Demiray, E., 2013. Tor, 2016). With these agreements all of the rights and equalities are recognized without any discrimination for man and women.

In the 10th clause of the agreement, the state guaranteed to take precautions stated below;

- ✓   ensuring equal opportunities not only urban areas but also in rural regions in terms of supplying occupational and art guidance; this equality is ensured at preschool, general, technical, vocational and high technical education and vocational instruction;
- ✓   they are provided with equal terms of participating in the same instructional program, examinations, attending to the courses of the similar instructors, in the same buildings and with the same educational materials;

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✓ removal of the stereotyped roles between men and women from any level of education process is ensured with coeducation and various educational methods are to be developed as well as innovative materials and curriculum studies;

✓ Same opportunities are ensured for men and women for scholarship and similar donations.

✓ same opportunities are ensured for women to fill the gap between man and women of older ages, especially in terms of literacy rate, with life long learning strategies and continuing training;

✓ educational programs are revised to prevent girls from leaving school and new strategies are developed for those who have already left at a certain level;

✓ same opportunities are provided in order for participating in sportive activies and physical education;

✓ information and advice about family planning and promoting family health and well-being is provided. (KSGM, 2008:6 cited in Demiray, E., 2013)

In India, Mexico, Namibia and Turkey, innovative learning approaches parallel to formal education are developed and adapted to traditional face to face educational system. In addition, some programs are adjusted for disadvantaged groups. For example, the programs of open high school, founded in 1992, and open vocational high school, founded 1995, use information and communication technology and face to face techniques. These programs present a law school fee, arbitrary books, and online learning materials. These programs are intended to reach different groups such as the physically handicapped, convicts; citizens live in rural areas (especially girls) and young people leaving school to work.

According to data from 2011, the rate of graduating from open high school is 27% and vocational open high school is 19%. Total number of graduates is 835.000. This is an achievement for those students who do not have the chance to finish continue high school after finishing primary school. Yet, still many young people do not have the advantage of accessing to these opportunities. (UNESCO, 2012)

Turkish Republic accepts all citizens equal before the law and sets legislation to protect and develop this equality. Law and regulations, while not differentiate between men and women, sometimes bear results not in favor of women and many women do not find the chance to benefit from their rights. One of these deprivations is women's right to education.

Purpose of Study
In this study, the problems of women education and possible practices of distant education in women education are investigated and evaluated.

METHODOLOGY
This study is a descriptive study using document review attaining and analyzing information from the literature of the relevant field. Historical process, current problems in woman education and possible practices of distant education in women education are analyzed and evaluated.

FINDINGS AND DISCUSSION

Problems in Women Education
Woman, being an active role in the family, contribute to social system's progress by doing her duties properly. Social system is like a social network consisting of social constitutions. Drawback in a social constitution affects all social entity. Therefore, considering the noble image of woman as an individual in the family is vital for her role and responsibility in the social life. It is necessary for woman to have the same

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educational rights with man to gain her worthy place and perform her duties in the society. Societies which do not ensure this equality procure proper development (Kayadibi, 2003).

Possible problems and diverse handicaps are faced in the society while applying women rights. One of the most important handicaps is gender discrimination and attitude in the society. Many countries in the world are observed to ignore subjects about women and women rights in their basic development policies and strategies. Likewise, in many countries there are laws that are opposing or banning the equality of women and men.

According to reports by UNICEF, especially discrimination against women is at an unacceptable dimension. Discrimination against women starts at an early age by giving more importance to boys than girls in the family with the effect of traditions, culture and stereotypes. Boys have more advantages from mother and father in terms of accepting more attention of general health care and education. It is a fact that women do not have equal place in any social layer. One of the main reasons for this situation is inequality between men and women which in turn causes educational problems. Throughout the history, problems about women education have been one of the biggest problems of humanity. 21 century Turkey also has not been different in terms of overcoming these problems. Women coming after men in the field of education should be evaluated in terms of a healthy, consistent and balanced society and family structure (Ozaydınlık, 2014).

In every part of world, societies' educational and cultural level is measured with the importance they give to the equality of education between men and women. Education is one of the most important issues societies' future and development. Education is especially important for countries like Turkey which has a high rate of young people population. Turkey has registration, attending and completing problems at a basic educational level. While basic education is protected by law in Turkey during the republic period, education of the population, especially that of women, is not at a preferred level.

There are many children who do not continue to primary education while primary education is compulsory and protected by law. In 2003, seven and a half million people are still illiterate. Thinking that the total population is 65 million, this is a relatively big number. It can be said that the situation does not change so much in 2009. In order to change this negative table, recuperative developments are needed in terms of women education. The number of children (especially girls) at the age of primary education (6-14), who are out of formal education, is 1012000.

In Turkey, there are important difference and imbalance in terms of accessing to education both between regions and gender. Gender related inequalities are also clear in rural areas compared to and urban city centres. According to numbers by SIS (State Institute of Statistics), the rate of illiterate women is 16.59% while in rural areas this rate reaches 30.76%. In 2006, literacy rate for men is 94%, while for women it 81%.

According to schooling rate of 2006-2007, the rate of boys at the age of primary education is 92.25% and that of girls is 87.91%. The schooling rate of women is not at a proffered level while it shows an increase year by year (Tunc, 2009).

According to UNICEF (2003), among the reason why girls are not continuing to school are;

✓   Traditions and religious believes;
✓   Stereotyped gender roles;
✓   Instructional programs and re-created gender roles in child care-education;
✓   Low statue of women;

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✓ **Early marriages;**
✓ **Seeing education as a contradiction for socially accepted roles (Tunc, 2009).**

Social gender inequality shows itself in Turkey in education, just like showing itself many other fields. In 2010 Turkey Millennium Development Goal Report, it stressed that while at primary education gender discrimination has been removed, the rate of girls who do not continue to secondary education is still highly worrisome (Ozaydınlık, 2014).

Diverse studies have shown that girls have similar educational problems such as economic insufficiency, gender discrimination, domestic work, looking after siblings, family's indifference, early marriages, working at agricultural labour, dispersed rural settlement.

In Turkey educational services are not balanced provided for men and women (Demiray, E., 2013. M. E., 1992. SIS, 1997).

In another research, primary reasons are attitudes towards "Girl/Woman Education", environment's effect for not sending girls to school, family members, customs and traditions, level of income, domestic work, early marriages, school expenses, attention and importance given to education, mobile teaching, lack of schools in the environment and similar factors (Tunc, 2009).

The most important problem of women is unschooling and unemployment. Looking from gender base, the number of unemployed and unschooled women is higher when compared to men in OECD countries.

In 2014, the rate for men at the age of 20-24 is 16,4% while for women it is 19,4. However, in Turkey the problem seems bigger. The rate for men is 20,5% while, it is 51% for women (see Table 2).

It is seen that the rate of unschooling and unemployment is in favour of women when compared to men. In OECD countries, the highest rate of unschooling and unemployment in terms of gender factor is in Turkey and Mexico (TED, 2015).

Tablo 2.
The rate of unschooled and disemployed 20-24 year old women and men of Turkey and OECD (TED, 2015)

	Unschooled and unemployed women	Unschooled and unemployed men
Turkey	51	20,5
OECD	19,4	16,4

In OECD countries, there is a significant difference in terms of gender dispersion at an undergraduate level. Turkey has a rate of 37% dispersion for women, while OECD's is 30% for fields like science and engineering. Likewise, the rate of women finishing undergraduate programs in OECD is 58% while in Turkey it is 49%. In addition, the rate of post graduate and doctorate for women in Turkey is 48% and 45%; while in OECD it is respectively 56% and47%. A remarkable difference shows itself in the academy graduate rates. In 2014, the rate of women graduation from vocational higher schools and associate's degree to all graduates of Turkey is 14%, while in OECD this is 3% (TED, 2015).

Although the proportion of women participating in education is higher, the situation gets different for employment in terms of gender difference. In OECD 66% all levels of graduation finds the chance of employment while 80% men has this chance. In 2014, in Turkey, which has one of the biggest gender based discrimination of employment, 12% of women finished graduate education is stayed out of employment whereas 6% of men do not fing the chance to enter in employment world. This is precisely half of the women rate. A similar picture is in the employment fields requiring a lower education than high school graduation. Turkey draws attention with a 25% gender difference rate between employment of men and women. This places Turkey among the countries with the highest rates. Among high school graduates, 17% women and 7% men are unemployed, which makes the gap between men and women bigger in terms of employment chances (TED, 2015).

Distance Education Applications

There is a strong relationship between societies' development level and educational practices. Developed countries aim to advance their societies by investing in education and spreading educational services to every part and individuals of the society. Therefore, they set their goals by intending to maximize schooling rate at every level of education. Countries' developmental level, economic opportunities, school age population, teachers' number, technological drawbacks and cultural attitudes towards education have a big role in presenting school practices to the individuals (Gelisli, 2015).

These realities show everybody that we need innovations in order to present better educational services. So as to come up with these drawbacks, both applicators and producers endeavour to find and develop different methods as well as benefiting from technology. Utilization of technology is of great importance for solutions of educational problems. Distance education application is one of the educational applications that use technology in their practices. (Gelisli, 2015).

Distance education is a system in which students and teachers are at different physical places actualizing education and instruction, using diverse technological equipments with the purpose of bringing educational services to wider groups and ensuring the equality of opportunities in education (Yalın, 2001: 204).

With the great development of internet and intranet and its usage at every aspect of life, technology has provided people with new methods and opportunities to do work at many fields especially economy. In the new world, one of the places that internet has entered is education. With internet, education has been called distance education, e-learning or electronic education (Bayam, Aksoy, 2012).

Women education is still a big problem in many parts of the world in spide of the rapid developments in educational and instructional field. Women benefit less from educational services than men and social gender inequalities continue. Therefore, distance education which do not require face to face educational expenses, is preferred since the number of women who do not continue to school after primary education is bigger than that of men. As a result, women who do not have the chance of maintaining formal education prefer distance education (Demiray, E., 2013).

In the modern world, women have to have a prestigious statue as well as being a conscious, creative, self confident and productive. In addition, it is vital for women to find their place as an individual in the society. What is more, education is of great importance for women in order to develop their position in the society. Accordingly, distance education, as well as formal and nonformal education, has great importance for the purpose of removing educational gender discrimination and purpose of development of women as an individual within the society (Demiray, E., 2013).

Distance education has an important function in women education. Women do not properly benefit from formal education as a result of the lack of resources, time, place and their bigger responsibility at home compared to men. Therefore, it is possible to provide them with the chance of finishing their education via distance education which does not necessitate face to face education and removes time and place expenses. Yet, it is not sufficient only to ensure the chance to finish educational levels but educational programs that support occupational opportunities, information about women rights, a self-confident image in the society, socially successful and contemporary individual attitude needed to be developed (Demiray, E. 2013).

Social perceptions, fertility and productivity role of women negatively affects their participation in the formal education. Society sees women as a baby sitter and housewife and do not accept any other role for women that hinders her program, tolerantly. As a result, especially married women do not easily find the chance of participating in other activities. Many studies result verifies this situation. Therefore, women find distance education appropriate for themselves. Housewife and mother role prevent class participation and flexible timing, while distance education enables solution for this situation. Women's restricted time, place and recourses increases their tendency for distance education (Kwapong, 2007:69 cited Demiray, E., 2013).

Distance education has drawn attention in many developed and developing countries including Turkey as a result of its role in removing geographical, economic and gender based educational and employment inequalities as well as complying with lifelong learning and being applicable at higher and vocational education (Sugur and Savran, 2006).

Distance education systems gives service for student groups who are geographically dispersed and are the effect of different life conditions.

Apart from it literal definition, it is possible to define distance education as an education that is applied to find solution for certain social problems. There are many other concepts that are used with distance education; some are open primary school, open secondary school, open high school and Open University. Notions about distance education are given in Figure below. Open plan school basically is a schooling model that realizes education without using school building or using it at a very small extent. In the base of open education lays the idea of using technologicies that support students to learn by themselves or develop their learning skills (Kaya, 2002).

DISTANCE EDUCATION

Open University

Primary School

Secondary Education

Higher Education

Open Primary School

Open High School

Open University
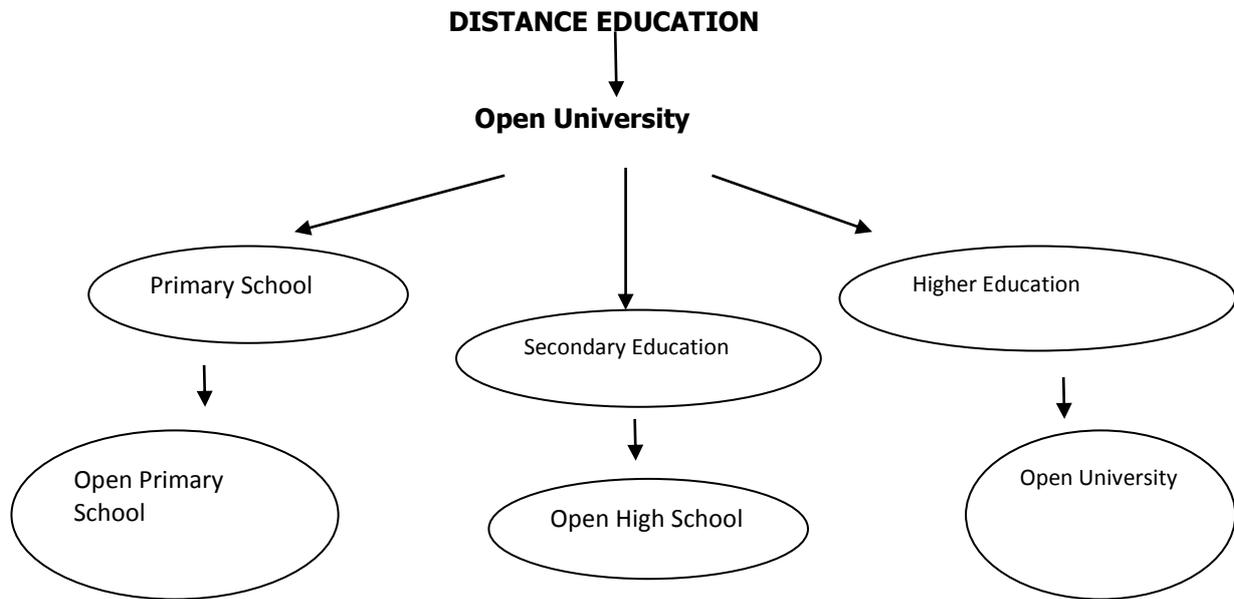
Figure 1:
General Outlook of Notions about Distance Educations (Source: Kaya, 2002)

Distance Education in Primary Education
Open Primary School was founded under Ministry of education attached to Centre of Education with Film Radio and Television with 1651 law number dated 12.09.1997. Open Primary School is an institution under General Directorate giving distance education with centralized system. The institution is founded as school management in the centre and Open Education Bureaus in the local areas. Personel at the school management are manager, vice manager, assistant managers, teachers and other staff (Düzgün, Yıldız, 2009).

Table: 3.
The Number of Students of Open Primary School between 1998-2008 by Gender

Gender	Aktive	Passive	Total
Male	61.811	125.540	187.351
Female	78.601	80.523	159.124
Total	140.412	206.063	346.475

In Table, it is clear that the number of active female students is higher than that of male students. This shows that female students are more eager to benefit from primary school than male students.

The role of distance education in increasing literacy rate is undeniable.

Distance Education in Secondary Education
According to the UNESCO report run in 2015, gender gap in rural areas of Turkey, which is a middle income country, is major. 65 percent of young women fail to complete the first years of secondary education. All the same, this ratio is 36 percent for men (UNESCO, 2012). This negative situation in secondary education has led to a drift into increasing the educational quality of the general population. One of these pursuits is distance education in secondary education.

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Open high schools started education in 1992–1993. Open high school, which started with 45.000 students in 1992–1993 year of education, has 760.000 log-in students in the 2002-2003 year of education. While open high school served only for secondary school graduates at the beginning, it has accepted the applications of students who have left secondary school at a middle classes such as 7th since 1993. Open high school gives educational services not only to those students who are out of school age but also to students from formal education (Demiray, & Adıyaman, 2010).

With arrival of the new 4+4+4 structural educational model system, law numbered 6287, and regulations in Primary School Law published in Official Gazette on April 11, 2012 the number of female students continuing in formal education has decreased while the number of female students who study open high school has increased. Equality of opportunity means that everybody has the right to register in a school. However, there are huge differences among schools. This situation also necessitates equality of opportunities. Yet, equalization of schools cannot prevent potential differences. Because inequalities that are out of schools create inequalities inside schools. Not only inequalities at school are needed to be demolished but also those at accessing to a higher educational institution and employment are needed to be eliminated (Tosun, & Arslan, 2015).

Distance Education in Higher Education

In educational systems, which are socially of great importance, distance education finds significant application environment in parallel to formal education practices in Turkey. Anadolu University Open Education and Distance Education System is the first contemporary distance education system at higher educational level in our country (Demiray, & Saglık, 2003). Open University system, which started distance education at Economy and Business Administration fields in 1982-1983, has increasingly broadened its scope. It is a higher education application, which has a 34 year historical background, giving service to large student groups. In 1993, Open University system has been revised with a Delegated Legislation law numbered 496, by turning Economy and Management programs into four year faculties.

In addition, open University faculty has been assigned to do affairs related to open education and prepare certificates for associate degree, graduate etc. Open University Faculty is the endeavour of using technology and developing internet and computer based educational materials and video conferences, ensuring adaptation of students to these technological entities apart from published materials and televised training. Besides, it provides academic guidance and face to face practices in the proper regions (Demiray, & Saglık, 2003; Demiray, E., 2013).

These applications are important applications that are used to remove gender based inequalities for higher education.

When distance education post graduate programs are analyzed, it is seen that there are 82 distance education post graduate programs for 60 different programs. With 19 different programs it is understood that e-MBA programs are relatively common and it is possible to open other programs as universities have the necessary experience. In addition, it is understood that distance education certificate programs are opened with 80 different programs when universities websites are observed. The diversity and number of programs increases day by day. Naturally it is predicted that the diversity and number of these programs will also increase in the future with the support of the internet.

Accordingly, the demands of student's will also increase as a result of the support of information technologies to the distance education programs. Yet it is only possible for these demands to increase if the programs bear the desired quality. While universities

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use similar programs, the key point exists in the quality of the courses and the experience and knowledge of applicators. Besides distance education, usage of information technologies is vital for formal education since learning environment and methods are mostly interned based.

Therefore, for successful distance education applications, it is very important for universities to get ready as an institution and enhance their instructors' knowledge accordingly. The distribution of 222 distance education programs at 47 universities (except certificate programs) is summarized in the table below (Babalan, 2012). Proliferation of higher education, which women do not properly benefit, presents important educational opportunities for women who work and do not continue to school as well as supporting them to graduate from higher education.

CONCLUSION

From the research, it is understood that women still have important education and employment problems; women's schooling rate is lower when compared with that of men. Reasons for educational problems of girls are economic inefficiencies, gender based discrimination among children, imposing housework to girls, girls being babysitter to their siblings, families' not giving permission for education, early marriages, working as an agricultural labourer, dispersed settlement in rural areas, and unbalanced educational services for man and women in Turkey.

The fact that primary, secondary and higher education applications which are diploma based applications in open education system are important educational opportunities for women deprived of educational services is another result of the research.

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TECHNOLOGICAL RACE:
Distance Education Can Enhance Gender Equity for Women Education in Nigeria

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ABSTRACT

This paper elaborates on how distance education can expand the scope and coverage of education for women in Nigeria, using ICTs. Every thing from traditional media to Web 2.0 to mobiles is the backbone of distance education. Developing the technology that is most appropriate for women in their own environment-community radio have a special place as to enhancing the quality of education of women. Aspiration for social and women education in Nigeria must be simultaneously built on the foundation of knowledge and skills through a system of delivery that reaches the women as appropriate for this present time. Distance education tends to be regarded as a second best option, open to those who, for whatever reasons cannot enrol in face-to-face institution. Domestic burden, childbirths, raising children, cultural boundaries and socio-cultural values places women behind and serves as factors hampering women education. Women usually invest a higher proportion of their earnings in their families and communities than the men. Against this background, with ICT, women can be at home and build up their productive skills, obtain a degree and even earn a living- all online, while they have enough time to look after their children and take good care of the home.

Keywords: Technology, distance education, gender equity, women, education.

INTRODUCTION

As has been aptly stated in (Sahed, Karasale, & Lifanda, 2005), the 1995 United Nations Fourth World Conference on Women UN, 1995 in Beijing, the girl-child today is the woman of tomorrow. The skills, ideas, and energy of the girl-child are vital for full attainment of the goals of equality, development, and peace. For the girl-child to develop her full potential, she needs to be nurtured in an enabling environment, where her spiritual, intellectual, and material needs for survival, protection, and development are met and equal rights safeguarded (Randell, & Diana, 2009).

Girls' education on the African continent has reached a crossroads. The Convention of the Rights of the Child (CRC) was established in 1989 as the first internationally binding legal instrument to encompass the full range of human rights -civil, political, economic, and cultural and social- and codified the concept of human rights specifically applicable to children.

Article 12 proclaimed that children are entitled to express their views on all matters of concern to them, and this norm in turn applies to all aspects of childhood education. According to the UNESCO EFA Global Monitoring 2009 Report, the principle of participation was buttressed in the Convention, with parallel rights to freedom of expression, religion, and association. Article 28 of the Convention addresses education and specifies that all children have the right to primary education, which should be free for all (universal primary education).

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The Beijing Conference in 1995, the Fourth World Conference for Women, set out a broad Platform of Action (BPFA) concerning the girl child. Drawing on baseline statistics from 1990, 130 million children worldwide had no access to primary education, of which 81 million were girls. A considerably higher number of girls had no access to secondary education.

According to the UN Division for the Advancement of Women, BPFA acknowledged the urgent need to:

✓ increase girls' access to primary and secondary education,
✓ alter representations of women and girls in the curriculum, and
✓ increase the number of female teachers worldwide.

Strategic Objective 4 stated the need to eliminate discrimination against girls in education, skills development and training. Without significant change to traditional curricular representations of women in roles of inferiority, girls would find it difficult to aspire to transcend these roles and work toward gender parity. Moreover, female teachers must be trained and placed in schools to serve as positive role models for young girls, both in primary and secondary schools. Through these threefold changes, Beijing set out a transformative path for the 21st century toward gender equality for the girl child. This path proved the foundation for the agenda of the Dakar World Educational Forum in 2000 and the formation of the MDGs to be accomplished by 2015 (UNESCO, 2009).

The World Educational Forum, held in Dakar, Senegal in 2000, equally established a Framework of Action to achieve Education for All (EFA) by 2015. EFA Goal II is to achieve universal primary education (UPE), and EFA Goal V is to remove gender disparities and inequalities in education. The Framework of Action was further divided into a two-part agenda:

✓ gender parity in school participation, and
✓ equality between girls and boys in opportunities and outcomes.

In Nigerian case, especially the limited education women receive could be detrimental to social development needs of women and girls, hence the focus of this paper, which add some important perspectives to the literature in the area looking out how distance education can enhance women education in Nigeria by the use of various technology. This paper is on how distance education can enhance gender equity in women education in Nigeria using ICTs.

THE USE OF TECHNOLOGY

At the second World Summit on the Information Society (Tunis, November 2005), Kofi Annan reminded that we are living in a world of rapid change where technologies play a multitude of roles. How we tap this technology's potential will shape our future together. We cannot remain indifferent to this enormous metamorphosis.

> *The participation of researchers and educators in the process of change that information and communication technologies bring to education is an opportunity to construct, shape and share development knowledge (Karsenti, 2010).*

Information and Communication Technologies (ICTs) are obviously of great significance for education. The integration of ICTs in general and women education in particular is the need of the hour. The use of ICTs can make substantial change for education and training. First, the rich representation of information changes, learners perception and understanding of the context and secondly the vast distribution and easy access to

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information can change the relation between teacher educators and student - teachers. Moreover, ICTs provide parental support for educational innovations. The ICTs such as Compact Disc and CD-ROM, Video disc, Micro Computers, E-Mail, Voice Mail, Instructional software, Educational Television, VCR, Cable TV, etc. are involved in the list of ICTs . There is a question among the Educators "Can these technologies help the Education Strategist to face the above challenges?"

There is no doubt that the ICTs help to provide quality education to a large number of students. ICTs help to interact with students over a physical distance and access on libraries, journals and other resources. With the help of ICTs educators/teachers can have access to students, colleagues, universities and so on. ICTs provide feedback without biases and provide life long professional virtual situation, training on demand and so on. Further, ICTs facilitate sharing of ideas, experience as well as collaborating on projects through virtual communities. ICTs contribute to the whole system of knowledge dissemination and learning.

ICTs are dominating now in all our private spheres, social and working environment. Few studies conducted on ICTs, e-Learning had become popular amongst educationists because of their strengths and advantages they provide to the instructional process. Ability to serve a large number of students at a potentially reduced cost (Goldberg, Salari and Swoboda, 1996; Starr 1997; McCormack and Jones, 1998; Bates, 2001.)

The web today is used as instructional media in educational institutions. Web is used independently for teaching and learning as replacement for face-to-face teaching. Berge, Collins, & Doughaty, 2000; Bates, 2001 reported experience of Indian Institute of Management Banking (IIMB) in using e-learning. The IIMB has been using e-learning to supplement face-to-face teaching.

A web enhanced training package was recently completed by the University of Lagos, in the university library and the university Computer Institute of Technology (CITS). The project was for the development of learning management system which is scalable and can be implemented in a large scale for the university. Internet is considered as a facilitator for 'just in time' education.

CAN DISTANCE EDUCATION HELP TO
EDUCATION STRATEGIST TO FACE THE ABOVE CHALLENGES?"

Concept of Distance Education
Distance education, or distance learning, is a field of education that focuses on the pedagogy and andragogy, technology, and instructional systems design that aim to deliver education to students who are not physically on site. Rather than attending courses in person, teachers and students may communicate at times of their own choosing by exchanging printed or electronic media, or through technology that allows them to communicate in real time and through other online ways (UNESCO, 2003). Within a context of rapid technological change and shifting market conditions, the Nigerian education system is challenged with providing increased educational opportunities without increased budgets. Many educational institutions are answering this challenge by developing distance education programmes.

These types of programmes can provide adults with a second chance at a college education, reach those disadvantaged by limited time, distance or physical disability, and update the knowledge base of workers at their places of employment.

Distance education has the potential to generate new patterns of teaching and learning. Strongly linked with developments in information and communication technologies, it is

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close to the development of new learning needs and new patterns of information access and application and learning. There is evidence that it can lead to innovation in mainstream education, and may even have effects beyond the realm of education itself. Distance education therefore plays an especially decisive role in the creation of the global knowledge-based society which women education in Nigeria will not be an exception.

Gender and ICTS Integration in Nigeria

There is need to improve the quality of education and resolve the equity issue. Discrimination against girls, or sexual differentiation, is a serious concern and a barrier to the integration of ICTs in education.

The disparity between girls and boys in learning to use ICTs, at all education levels, underscores the gender-specific nature of Nigerian society, where women's and men's living conditions differ. Depending on the region, women enjoy less social access and are submitted to diverse forms of exclusion, which renders them more vulnerable. Socio cultural frameworks have confined African women to the role of housekeeper (Karsenti, 2010).

> *It is generally believed that the family name is preserved in the linage of the male child, hence the male child should be better equipped than the female in order to get a good job and provide for the family. It is believed that women are mainly for the purpose of reproduction and domestic activity, hence (there is) no need to educate them, as this is a waste of resources* (Obote, 2005).

The problem is exacerbated by the fact that girls appear to be alienated by ICTs, considering them as belonging to the masculine realm. An investigation of computer savvy by university students revealed that female students were less skilled in the use of information technologies than their male counterparts (Sayed & Karelse, 1997). This imbalance at all levels is undoubtedly attributable to a mixture of cultural norms, but also to historical, economic, sociological, legal and traditional factors.

However, a certain balance between boys and girls in ICTs training would be required for the successful long-term integration of ICTs into schools. Moreover, girls make up slightly more than half the student population in most African countries. One cannot contemplate integrating ICTs into the schools without giving due consideration to girls. ICTs integration should not be allowed to be a domain strictly reserved for males. By raising awareness among girls and facilitating their access to ICTs, in short, by advocating sexual equality, it could enable a better implementation of ICTs into education systems. Any efforts to correct gender imbalances would require schools to encourage girls to use ICTs.

According to many studies, several factors must take into account when developing ICTs integration policies so as to overcome the constraints that bar girls from using these technologies at school. For example, educators' (parents" and teachers") behaviours would have to change towards children, from a very young age.

Above all, special measures would have to be implemented in the schools to facilitate girls' access to the computer rooms. There should be no barriers to girls. Otherwise, there is a risk for lack of interest and awareness, exacerbated by the influence of the socio-cultural environment. Every person who can read and write can use ICTs.

The ICTs integration process should therefore consider the entire environment, scholastic and socio cultural, so as to correct the educational imbalance between

the sexes and produce a new generation of young girls and women who are knowledgeable and trained in day-to-day ICTs use. In other words, girls should be offered

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the same educational opportunities as boys. Sexual discrimination, i.e. exclusion or marginalization, constitutes a serious hindrance to the effective integration of ICTs into the education system.
Let's look at the reality of the time.

ROLE OF DISTANCE EDUCATION IN ENHANCING WOMEN EDUCATION IN NIGERIA

Open and distance learning can be used for girl's school-age children and adult women that are unable to attend ordinary schools, or to support teaching in schools, both at primary and secondary level. However, it is to be noted that in distance education most courses and programmes are targeted at the adult population. In Nigeria distance education for school equivalency can be an important way of expanding educational opportunities to the women population.

Hence, Open schools that use a variety of media such as audio-conference; video-conference; electronic-mail; telephone; fax; CD ROM, access to data base; radio or television; web conferencing among others will be of a particular interest to high-population country like Nigeria.

There are the capacity of distance education to support large-scale campaigns for disadvantaged women e.g. in the field of HIV/AIDS education; health and nutrition; child mortality, disabled; migrants; cultural and linguistic minorities; refugees; population in crises situations; who cannot be efficiently reached by traditional delivery systems is significant in the context of continuing education and training.

Basically, both private and public providers can make important contributions to the development of industry and trade through programmes for technical and vocational education for women. Core purposes include the ability to respond flexibly to women needs and to provide opportunities for those most disadvantaged by existing provision.

Female teachers' training is an important area where distance education can make a major contribution. This includes initial training for formal qualifications, in-service supplementary training for formal upgrading, and continuing in-service training in particular subjects and topics.

In Nigeria, distance learning can reach large groups of female teachers and will have a profound impact on the national development of women education systems. The use of distance learning for female teacher education is a crucial strategy in the expansion or quality improvement in the public education system.

Moreover, as there is the need to upgrade female teachers' knowledge and competence in using new ICTs, using the new rich instructional and information resources available on the Web is imperative. In such cases it is very appropriate to use the new technologies in the training programme for female teachers.

Non-formal education and community development represent other sectors where distance education can increasingly be used. Programmes at a distance can reach substantial numbers of women, in societies where women lack equal opportunities for participation in conventional forms of education and training.

The barriers that may be overcome by distance learning include not only geographical distance, but also other confining circumstances, (like the women in purdah), personal constraints, cultural and social barriers and lack of educational infrastructure; the

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extension of literacy and numeracy skills among millions of adults through the use of radio, television and telematics, helping rural women to develop entrepreneurial skills, assisting agricultural extension workers to improve their capacity to educate farm workers, training of women legislators in legislative drafting, increasing the speed of in-service training of un- or under-trained female teachers, and delivering continuous professional development programmes for women in health, managers and administrators.

Distance education can increase women points of access to education. Learners tend to access distance teaching in four sites, namely, the home, the workplace, dedicated study centres and, like their counterparts in the conventional systems, traditional classrooms. For the women it is often a cheaper alternative to pursuing a course through conventional methods. Distance education may mean a more learner-centred approach, allowing greater flexibility and choice of content as well as more personal organization of the learning programme. Open and distance learning approaches lend themselves to the teaching of many of the complex issues of the modern world, in which input from a variety of disciplines is necessary.

Distance education at the tertiary level shows a two-fold development pattern. On the one hand, numerous single mode open universities have emerged and can absorb large numbers of female learners, while, on the other hand, increasing numbers of traditional universities have begun to offer their programmes also through distance education. The development of new ICTs can reinforce this trend.

Distance education with the use of ICTs can however enhance the delivery of education in many ways (Karsenti, 2010) such as in higher education and teacher training where women learners in communities or faculties can foster self-training and successful cyberspace that extend tutoring and interaction with mentors to new approaches to the concept of time units, independent of learning locations and learning activities. For instance, the contact encouraged using email or even mobile continued education content, or contact with a lecturer. In other words mobile learning decreases limitation of learning location with the mobility of general portable devices. M-learning is convenient in that it is accessible from virtually anywhere. M-Learning, like other forms of E-learning, is also collaborative; sharing is almost instantaneous among everyone using the same content, which leads to the reception of instant feedback and tips. M-Learning brings strong portability by replacing books and notes with small RAMS filled with tailored learning contents. In addition, it is simple to utilize mobile learning for a more effective and entertaining experience.

How Is Distance Education Serving The Education System?

Are there new ways of thinking about curriculum development? What are the impacts on female teacher training, in a context where there is a significant lack of trained and qualified teachers in Nigeria? Aside from all this, online learning allows international cooperative teacher training like the new World Bank initiative called IFADEM for the collaborative and cooperative training of teachers across Africa. It also promotes national and international exchanges between teachers and contributes to the fine-tuning of pedagogical practices.

For the women distance education means increased access and flexibility as well as the combination of work and education. It may also mean a more learner-centred approach, enrichment, higher quality and new ways of interaction. For employers it offers high quality and usually cost-effective professional development in the workplace. It allows upgrading of skills, increased productivity and development of a new learning culture. In addition, it means sharing of costs, of training time, and increased portability of training.

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For governments the main potential is to increase the capacity and cost-effectiveness of education and training systems, to reach target groups with limited access to conventional education and training, to support and enhance the quality and relevance of existing educational structures, to ensure the connection of educational institutions and curricula to the emerging networks and information resources, and to promote innovation and opportunities for lifelong learning, The Web offers a worldwide forum in which to teach courses that can be dynamically updated in ways never before possible.

Each female student has an enormous range of resources available, free from limitations of time and space. There remains considerable work to be done concerning searching and sifting techniques within these resources for learners and teachers alike. These resources are reconfiguring the ways in which students learn, and new approaches to networked learning are evolving. The use of the Internet and the World Wide Web in open and distance learning is predominantly represented within higher education, it is also beginning to be used in schools.

Thus, great attention should be given to distance learning to meet the educational needs of the women population, with a view to providing new and alternative learning opportunities for those who were initially deprived of them, or who, for one reason or another, did not make use of them. Educate girls to empower the nations. If we educate a boy, we educate one person, if we educate a girl; we educate a family- and a whole nation.

How Programmes Are Used at a Distance in Nigeria

There are basic issues to be noted in the pedagogy of distance learning in Nigeria. In reality, different examples will be used to support different pedagogic approaches with value of mobile learning. For instance:

✓ The National Open University of Nigeria (NOUN), have the NOUN radio, also in University of Lagos, Akoka, Nigeria use the UNILAG Radio, and the Institute of Management and Technology, (IMT) Enugu are known for their (UNIAIR) programme. These radio stations are where students listen and receive their lectures. These are very popular and are being used by these institutions, to broadcast educational programs of variety on areas such as teacher education, rural development, programmes in agriculture for farmers, science education, creative writing, mass communication, in addition to traditional courses in liberal arts, science and business administration.

✓ Looking at the above provision, the Nigerian women are using that as an opportunity to enroll into distance education programmes. With about thirty six study centers situated all over the country and with a population of over thirty thousand students, the women are about twelve thousand. These women are engaged in the various degree programmes offered by these institutions. The courses offered by these women are: education viz; early childhood, teacher education, adult education, educational administration, guidance and counseling and vocational training. There are other professional programmes enrolled by the women such as: law, business administration, agriculture, nursing, human resources and among others. Women are found in almost all the registered programmes of the institutions. In Awka/Lagos study centre the researchers had facilitated over five hundred women from 2006-2010 academic sessions.

✓ National Open University of Nigeria (NOUN) provides learning resource centres (LRC) with a school based training system for all the study centres in the six regions. Sets of equipment compliments the learning resource centres. E.g. printers, CD- players and writer, data storage items (hard disks and CD-ROM, television, satellite dish and receiving software, digital camera, video use in micro-teaching, set of an audio and video CDS, prints and guides. Students download their course materials on their institutions website.

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✓   NOUN, UNILAG, IMT, and amongst others engage in the configuration of equipment, this is by getting and storing current information on the new curriculum and teaching methods. It is also by observing and discussing lessons taught by other teachers via technology, either on CD-ROM or in real-time via satellite television, and learning to use computers;

✓   These institutions find and create educational resources to use in teaching, preparing lesson plan with colleagues, interacting with other teachers and trainers either online or in meetings and workshops. The teaching learning resources are adequately managed by efficient and effective planning, coordination, and monitoring;

✓   There are the technical and support trained staff to maintain equipment, solve technical problems, assist to use the equipment and manage the educational resources, and learning support teachers who provided pedagogical leadership and assistance;

✓   NOUN concentrated much on human resource development. Emphasis was on the soft technology of people's skill, knowledge and understanding rather than on the hard technology of equipment. As a practical response to the growing demand for training and research, Regional Training and Research Institute for Open and Distance Learning (RETRIDAL) was established in collaboration with the Commonwealth of Learning (COL) to ensure the success of ODL system and fully maximise the benefits of distance education in the West Africa sub-region, much of the project's success was due to this;

✓   NOUN and UNILAG, spent some percent of its budget on equipment and training of different kinds (e.g. new curriculum, teaching methods, training of trainers, materials development, preparation of computer-mediated, online (web-based) and CD-ROM based distance learning materials, management of learning resource centres and the use of e-learning and its integration into teaching and learning);

✓   In dedicated distance education institutions in Nigeria, there has been a drive to get students online to support teaching, learning and administration. The internet provides various means to remedy the lack of interpersonal communications that has been '' the Achilles heel of distance education'';

✓   E-learning is pedagogically integrated into the course design and adapted for the current environment, which enable and support enhanced forms of learning. NOUN, UNILAG and IMT students, and amongst others are made to work in small groups on a collaborative task, where they use the internet to find information resource. Conferencing or e-mail is used to communicate and construct a joint project which is assessed, then using e-learning as a clear pedagogic role;

✓   With the computer networks, learners are encouraged to take an active part in the learning process and construct their knowledge by interacting with learning materials and their peers. There is an online learning discussion forum as social interactive learning environments, for constructivist learning theories. The constructive principles provide a set of guidelines for creating learner-centred, collaborative environments that support reflective and experiential processes.

MOBILE LEARNING

The mobile phone (through text SMS notices) is used with students whose course requires them to be highly mobile and in particular to communicate information regarding availability of assignment results, venue changes and cancellations, etc.

NOUN facilitators use mobile computers connected by wireless networks for students lectures and conferencing. In use also are learning with portable technologies such as handheld computers, PDAs, Pocket PC, smart phones, MP3 players, and by replacing books and notes with small RAMS, filled with tailored learning contents RAMS. This M-learning focuses on the mobility of the learner, interacting with portable technologies, and learning that reflects a focus on how society and its institutions can accommodate and support an increasingly mobile population.

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The M-Learning adds as mobility to the instructor and includes creation of learning materials on-the-spot. Using these mobile tools for creating learning aides and materials in the classroom helps to enhance group collaboration among students and instructors.

THE VALUE OF MOBILE LEARNING

Mobile learning will be of value to bring new technology into the classroom. It is more light weight device compare to books, PCs, etc. Mobile learning could be utilized as part of a learning approach which uses different types of activities (or a blended learning approach). Also, mobile learning supports the learning process rather than being integral to it. It needs to be used appropriately, according to the groups of students involved. Mobile learning is useful tool for students with special needs. Good IT support is needed. Mobile learning can be used as a 'hook' to re-engage disaffected youth. Thus, it is very necessary to have enough devices for classroom use.

CONCLUSION

The following steps have been identified in mobile learning by practitioners, policymakers and researchers as essential to this process: Meeting the MDG and EFA goals for 2015; achieving universal and compulsory primary education; eliminating child labour; providing financial incentives for girls' education to help poorer families; improving sanitation and providing sanitary products to mature teenage girls; bringing women into the curriculum in positive, transformative and influential roles, bringing women teachers into the classroom – in primary and secondary schools, to serve as role models for young girls. A lot of development in women access to education using ODL; ODL is a way of providing learning to the space less; married women for ODL; ODL Create awareness to the disadvantaged; and ODL has come to reform/flush out some of these burdensome traditions.

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The World's Women 2015
Trends and Statistics

Department of Economic and Social Affairs

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United Nations
New York, 2015

United Nations Department of Economic and Social Affairs

The Department of Economic and Social Affairs of the United Nations Secretariat is a vital interface between global policies in the economic, social and environmental spheres and national action. The Department works in three main interlinked areas: (i) it compiles, generates and analyses a wide range of economic, social and environmental data and information on which States Members of the United Nations draw to review common problems and to take stock of policy options; (ii) it facilitates the negotiations of Member States in many intergovernmental bodies on joint courses of action to address ongoing or emerging global challenges; and (iii) it advises interested Governments on the ways and means of translating policy frameworks developed in United Nations conferences and summits into programmes at the country level and, through technical assistance, helps build national capacities.

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Message from the Secretary-General

The World's Women 2015: Trends and Statistics comes as the international community marks the twentieth anniversary of the landmark Beijing Declaration and Platform for Action and looks forward to the adoption of sustainable development goals to guide our global fight against poverty through the year 2030.

Women's advancement, equality and empowerment, so central to progress on the Millennium Development Goals, remain indispensable to success.

This report confirms that the lives of women have improved in a number of areas over the last two decades—but the pace has been slow and uneven across regions as well as within and among countries.

I commend this publication to governments, researchers, scholars, non-governmental organizations and citizens around the world. I trust that all will use the valuable information in these pages as we strive together to ensure that every woman enjoys her human rights and has the chance to achieve her full potential.

BAN Ki-moon

Preface

This sixth edition of *The World's Women: Trends and Statistics* provides the latest statistics and analysis on the status of women and men at global and regional levels and reviews the progress towards gender equality over the last 20 years. The eight chapters of the report cover several broad policy areas identified in the 1995 Beijing Platform for Action, the framework that set the international agenda for improving the status of women. These areas include population and families, health, education, work, power and decision-making, violence against women, environment and poverty. In each area, a life-cycle approach is used to reveal the experiences of women and men during different periods of life—from childhood and the formative years, through the working and reproductive stage, to older ages.

The statistics and analysis presented in *The World's Women 2015* are based on a comprehensive and careful assessment of a large set of available data and take into account new and emerging methodological developments in gender statistics. The report reveals that the lives of women have improved in some respects. For instance, the gender gap in education has narrowed, particularly at the primary level, and in many countries women now outnumber men in tertiary education. In other areas, however, progress has stagnated. Today, half the world's women join the labour force compared to three quarters of men, a situation not unlike that of 20 years ago. Women are far from having an equal voice to men in public and private spheres. And, unacceptably, in every region of the world, women are still subjected to various forms of violence. Women also face new challenges, including those related to changes in living arrangements. As a result, older women today are more likely to be living alone and in poverty than men of the same age.

My sincere hope is that this publication will deepen our understanding of the current status of women and men and of the advances in women's empowerment. I also trust that it will serve as a model for national and international stakeholders in identifying and addressing data gaps on gender issues. Much work remains to fill the gaps in coverage of key topics, to improve the timeliness and comparability of data over time and across countries, and to strengthen national capacity in the production and use of gender statistics.

Wu Hongbo
Under-Secretary-General for Economic and Social Affairs

Acknowledgments

Executive Summary

At the 1995 United Nations Fourth World Conference on Women, Governments adopted the Beijing Declaration and Platform for Action, which "seeks to promote and protect the full enjoyment of all human rights and the fundamental freedoms of all women throughout their life cycle." Guided by these principles, *the World's Women 2015: Trends and Statistics* presents the latest statistics and analyses of the status of women and men in areas of concern identified by the Platform for Action. It also reviews progress towards gender equality over the past 20 years. The publication is the sixth edition in a series.

The World's Women 2015 comprises eight chapters covering critical areas of policy concern: population and families, health, education, work, power and decision-making, violence against women, environment, and poverty. In each area, a life-cycle approach is introduced to reveal the experiences of women and men during different periods of life—from childhood and the formative years, through the working and reproductive stages, to older ages.

The statistics and analyses presented in the following pages are based on a comprehensive and careful assessment of a large set of available data from international and national statistical agencies. Each chapter provides an assessment of gaps in gender statistics, highlighting progress in the availability of statistics, new and emerging methodological developments, and areas demanding further attention from the international community. In addition to the data presented in the chapters, a wide selection of statistics and indicators at the global, regional and country levels can be found in the Statistical Annex of this report available in a dedicated website hosted by the United Nations Statistics Division (http://unstats.un.org/unsd/gender/worldswomen.html). The report's main findings are summarized below.

Population and families

Worldwide, men outnumber women by some 62 million. More baby boys are born than baby girls, a by-product of enduring natural selection processes. The slight male advantage in numbers at birth disappears progressively during childhood and young adulthood, owing to generally higher male than female mortality. Consequently, women outnumber men in older age groups. Women represent 54 per cent of the population aged 60 and over and 62 per cent of those aged 80 and over. The number of years lived as a person aged 60 and over is higher for women than for men by about three years. Noticeable differences are also found in the living arrangements of older women and men. In the later stages of life, women are much more likely than men to be widowed and to live alone. This has to be taken into account by programmes and services targeted to older persons, particularly in the context of the increasing share of older persons in the population (population ageing) that is taking place everywhere.

Marriage patterns have also changed over the past two decades. Both women and men are marrying later, a reflection of increases in education levels, later entry into the labour force, greater economic independence of women and a rise in informal unions. Women continue to marry a few years earlier than men, at age 25 on average, compared to 29 for men. The rate of child marriage—a fundamental violation of human rights that limits girls' opportunities for education and development and exposes them to the risk of domestic violence and social isola-

tion—has declined slightly. Still, almost half of women aged 20 to 24 in Southern Asia and two fifths in sub-Saharan Africa were married before age 18.

Globally, the total fertility rate reached 2.5 children per woman in 2010–2015, a decline from three children in 1990–1995. While fertility fell slightly in countries with high and medium fertility levels, it rose slightly in some countries with low fertility. Increasingly, having children is becoming delinked from formal marriage, as reflected by the increase in the share of extra-marital births. As a result of this trend and a rise in divorce rates, one-parent households, among which single mothers with children make up more than three quarters, are becoming common in both developing and developed regions.

Health

Medical and technological improvements over several decades have extended the lives of both women and men, who are expected at present to live an average of 72 and 68 years, respectively. An analysis of mortality data across age groups and regions shows that women and men tend to die of different causes. In all regions, biological factors, along with gender inequality and gender norms, influence sex differences in health trajectories throughout the life cycle.

Adolescence and young adulthood should be a time of general good health with low mortality rates. Yet in developing regions, complications linked to pregnancy and childbirth, as well as sexually transmitted infections, particularly HIV, continue to take a heavy toll on the lives of adolescent girls and young women. This is due not only to underdeveloped health systems that are unable to address women's needs, but also to gender issues. Poor access to information and education, early marriage, and lack of decision-making power among girls who are married or in relationship increase their exposure to sexually transmitted infections, unwanted pregnancies and the risk of unsafe abortion. Traditional gender expectations also exert a harmful effect on men. Adolescent boys and young men often take up habits and risky behaviours that are associated with images of masculinity. During adolescence and young adulthood, road injuries, interpersonal violence and self-harm are the leading causes of death among young men in both developed and developing regions. Injuries are also a leading cause of death among young women in developed regions, although the corresponding mortality rates are much lower than those of young men.

For women of reproductive age, the biological functions of pregnancy and childbirth create additional health needs. Overall, reproductive and maternal health has improved considerably over the past two decades. A growing proportion of women are using contraceptives and the demand for family planning is increasingly being satisfied. Worldwide, the number of maternal deaths declined by 45 per cent between 1990 and 2013. Still, in sub-Saharan Africa, only half of pregnant women receive adequate care during childbirth. In 2014, 83 per cent of pregnant women in developing regions had at least one antenatal care visit, an improvement of 19 per-centage points since 1990. However, only 52 per cent of pregnant women had the recommended minimum of four antenatal care visits.

At older ages, non-communicable diseases such as cardiovascular disease, cancer, chronic ob-structive pulmonary disease and diabetes are the more common causes of death. Over the entire life course, risk factors contributing to these diseases have a clear gender component. For in-stance, men smoke tobacco and drink alcohol to a much greater extent than women: 36 per cent of men aged 15 and over smoke and 48 per cent drink, compared to 8 and 29 per cent of women, respectively. However, large numbers of women have adopted these unhealthy habits, particu-larly in developed regions. Moreover, while the prevalence of obesity has increased among both sexes, women appear to be slightly more affected (14 per cent of women aged 20 and over are

obese compared to 10 per cent of men). Mental disorders, in particular dementia, are among the major causes of disability in later life. In 2013, an estimated 44 million people globally were living with dementia, a number that is expected to double every 20 years. Women are more affected than men due to women's greater longevity and the typically late onset of dementia. Women also represent the majority of informal caregivers of people with dementia—mostly in their role as partners, daughters and daughters-in-law.

Education

The past two decades have witnessed remarkable progress in participation in education. Enrolment of children in primary education is at present nearly universal. The gender gap has narrowed, and in some regions girls tend to perform better in school than boys and progress in a more timely manner. However, in some developing countries that have not reached gender parity, the disparities against girls are stark. Today, 58 million children of primary school age are out of school worldwide. More than half of these are girls and nearly three quarters live in sub-Saharan Africa and Southern Asia.

Secondary school enrolment has increased but remains lower than primary school enrolment. Although gender disparities in access to secondary education have been reduced, they remain wider and more prevalent than at the primary level—to the advantage of boys in some countries and of girls in others. Gender disparities are even broader at the tertiary level. Female participation in tertiary education overall has increased globally and currently surpasses male participation in almost all developed countries and in half of developing countries. However, women are clearly underrepresented in fields related to science, engineering, manufacturing and construction. Women are also underrepresented in the more advanced degree programmes, especially in science-related fields, resulting in fewer women than men in research. Women account for 30 per cent of all researchers—an increase compared to previous decades but still far from parity.

Progress in educational access has yielded improvements in adult literacy and educational attainment. Illiteracy among youths has been eradicated in many regions of the world, and the vast majority of young women and men presently have basic reading and writing skills. However, an estimated 781 million people aged 15 and over remain illiterate. Nearly two thirds of them are women, a proportion that has remained unchanged for two decades. Illiteracy rates are highest among older people and are higher among women than men. At age 65 and over, 30 per cent of women and 19 per cent of men are illiterate. The vast majority of older persons are illiterate in Northern Africa, sub-Saharan Africa and Southern Asia, where gender gaps are also noted. As societies experience population ageing, it becomes increasingly important that literacy and other lifelong learning programmes enable women and men to become more self-reliant, work as long as desired and remain socially engaged at older ages.

Work

As a group, women work as much as men, if not more. When both paid and unpaid work such as household chores and caring for children are taken into account, women work longer hours than men—an average of 30 minutes a day longer in developed countries and 50 minutes in developing countries. Gender differentials in hours spent on domestic work have narrowed over time, mainly as a result of less time spent on household chores by women and, to a smaller extent, by an increase in time spent on childcare by men.

Only 50 per cent of women of working age are in the labour force, compared to 77 per cent of men. The gender gap in labour force participation remains especially large in Northern Africa,

Western Asia and Southern Asia. Overall participation in the labour market is only slightly lower in 2015, compared to 1995. However, women and men aged 15 to 24 years have experienced a decline in participation, which is likely linked to expanding educational opportunities at the secondary and tertiary levels. Older women aged 25 to 54 increased their labour force participation in most regions, while that of men in the same age group stagnated or declined slightly across regions. The proportion of women aged 55 to 64 in the labour force has risen in most regions, reflecting changes in the statutory retirement age and pension reforms.

Women are more likely than men to be unemployed or to be contributing family workers, which usually implies that they have no access to monetary income. In Oceania, sub-Saharan Africa and Southern Asia, between 30 and 55 per cent of employed women are contributing family workers, about 20 percentage points higher than men in the same regions. Women are also more likely than men to be employed part-time. However, while this can help them to better balance work, household and childrearing responsibilities, part-time jobs are often associated with lower hourly wages, less job security and less training and promotion opportunities than full-time employment. Women are also significantly underrepresented in decision-making positions such as legislators, senior officials and managers, but are overrepresented as domestic workers, positions that are characterized by low pay, long hours and lack of social protection. Across all sectors and occupations, women on average earn less than men; in most countries, women in full-time jobs earn between 70 and 90 per cent of what men earn. Many developed countries show a long-term decline in the gender pay gap, but the trend is mixed in recent years.

Over the past 20 years, an increasing number of countries have adopted legislation providing maternity and paternity benefits, enabling workers to meet their responsibilities outside work. Over half of all countries currently offer at least 14 weeks of maternity leave and 48 per cent of countries have provisions for paternity leave. These measures, however, often exclude workers in specific sectors or categories of employment, such as paid domestic workers, own-account and contributing family workers, casual and temporary workers, and agricultural workers.

Power and decision-making

Inequality between women and men tends to be severe and highly visible in power and decision-making arenas. In most societies around the world, women hold only a minority of decision-making positions in public and private institutions. Advances over the past two decades are evident in all regions and in most countries, but progress has been slow.

Currently, only one in five members of lower or single houses of parliament worldwide is a woman. A few factors contribute to this blatant underrepresentation. Women are seldom leaders of major political parties, which are instrumental in forming future political leaders and in supporting them throughout the election process. Gender norms and expectations also drastically reduce the pool of female candidates for selection as electoral representatives, and contribute to the multiple obstacles that women face during the electoral process. The use by some countries of gender quotas has improved women's chances of being elected. Yet, once in office, few women reach the higher echelons of parliamentary hierarchies.

Women are largely excluded from the executive branches of government. Female Heads of State or Government are still the exception, although the number has increased slightly (from 12 to 19) over the past 20 years. Similarly, only 18 per cent of appointed ministers are women, and are usually assigned to portfolios related to social issues. Women are also underrepresented among senior-level civil servants, and seldom represent their governments at the international level.

Women's representation among corporate managers, legislators and senior officials remains low, with only about half of countries having shares of women in managerial positions of 30 per cent

or more, and none reaching or surpassing parity. The gender compositions of executive boards of private companies are nowhere near parity—meaning that the "glass ceiling" remains a reality for the vast majority of the world's women.

Violence against women

Women across the world are subjected to physical, sexual, psychological and economic violence, regardless of their income, age or education. Such violence can lead to long-term physical, mental and emotional health problems. Around one third of women worldwide have experienced physical and/or sexual violence by an intimate partner or sexual violence by a non-partner at some point in their lives. Intimate partner violence is the most common form of violence, peaking during women's reproductive years in both developed and developing countries. Prevalence declines with age but still persists among older women. In the most extreme cases, violence against women can lead to death; around two thirds of victims of intimate partner or family-related homicides are women.

In the majority of countries, less than 40 per cent of the women who experienced violence sought help of any sort. Among those who did, most looked to family and friends as opposed to the police and health services. In almost all countries with available data, the percentage of women who sought police help, out of all women who sought assistance, was less than 10 per cent. Women's reluctance to seek help may be linked to the widespread acceptability of violence against women. In many countries, both women and men believe that wife-beating is justified in certain circumstances. However, attitudes towards violence are beginning to change. In almost all countries with available information for more than one year, the level of both women's and men's acceptance of violence has diminished over time.

More than 125 million girls and women alive today have been subjected to female genital mutilation across countries in Africa and the Middle East where this specific form of violence against women is concentrated. Prevalence tends to be lower among younger women, indicating a decline in this harmful practice. However, it remains commonplace in a number of these countries, with overall prevalence rates of over 80 per cent.

Environment

Access to clean water and modern energy services has improved everywhere, but remains low in some developing regions, including Oceania, sub-Saharan Africa and Southern Asia. Poor access to both of these services has a huge impact on health and survival, while also increasing the workloads of both women and men. About half of the population living in developing regions lack access to improved drinking water sources in their homes or on the premises, with the task of water collection falling mostly on the shoulders of women. In settings where women and men do not have equal access to health services, as in some parts of Asia, inadequate water, sanitation and hygiene may result in more female than male deaths. Women in developing countries are also more exposed than men to indoor pollutants resulting from the use of firewood and other solid fuels, due to their role in cooking and caring for children and other family members.

The impact of extreme climate events and disasters also has a gender dimension. Although limited, available data suggest that age and sex are significant factors in mortality resulting from natural disasters. Their contribution varies by country and by type of hazard. For instance, a higher risk of death among women than men was noted mainly in the context of recent tsunamis and heatwaves. Gender roles and norms can also play a role in the aftermath of disasters. In some

post-disaster settings, women's access to work and their involvement in decision-making related to recovery efforts and risk-reduction strategies remain more limited than men's.

Environmental protection, and consequently sustainable development, require that both women and men become actively involved through day-to-day activities and are equally represented in decision-making at all levels. More and more people are engaging in environmental protection activities, including recycling and cutting back on driving to reduce pollution; women tend to be more involved than men, which is somewhat linked to the gender division of domestic labour. However women's involvement in local and national policy formulation and decision-making in natural resources and environment management remains limited.

Poverty

Gender disparities in poverty are rooted in inequalities in access to economic resources. In many countries, women continue to be economically dependent on their spouses. Lower proportions of women than men have their own cash income from labour as a result of the unequal division of paid and unpaid work. In developing countries, statutory and customary laws continue to restrict women's access to land and other assets, and women's control over household economic resources is limited. In nearly a third of developing countries, laws do not guarantee the same inheritance rights for women and men, and in an additional half of countries discriminatory customary practices against women are found. Moreover, about one in three married women from developing regions has no control over household spending on major purchases, and about one in 10 married women is not consulted on how their own cash earnings are spent.

Gender disparities in poverty are more visible with the diversification of family arrangements, including an increase in one-person households and one-parent families. Working-age women in developed and developing countries are more likely to be poorer than men when they have dependant children and no partners to contribute to the household income or when their own income is non-existent or too low to support the entire family. At older ages, women in developed countries are more likely than men to be poor, particularly when living in one-person households. The difference in poverty rates between women and men, including among lone parents with dependant children and among older persons, is narrowing in some countries while it remains persistent in others. This points to the need for social protection systems that take into account the emerging diversification of family arrangements.

Moving forward on gender statistics

Availability of data for gender analysis has increased

Relevant, reliable and timely gender statistics—cutting across traditional fields of statistics, including education, health and employment as well as emerging ones, such as climate change—are essential to understanding the differences between women and men in a given society. Such information is critical to policy- and decision-makers and to advancing progress towards gender equality.

The World's Women 2015 has benefited from the growing availability of gender statistics. Because more countries are conducting household surveys, in addition to regular population censuses, the majority of them can produce at present data disaggregated by sex for basic indicators on population, families, health, education and work. Many more surveys are presently available on critical areas such as violence against women: 89 countries collected data on this topic through household surveys during the period 2005–2014 compared to only 44 in the previous decade. Furthermore, gender statistics based on administrative records are becoming more widely available. For instance, statistics on women's representation in lower or single houses of parliament are available for 190 countries in 2015, an increase from 167 countries in 1997.

… yet major gaps still exist in terms of availability and comparability

Despite improvements over time, gender statistics are still far from satisfactory and many gaps exist in terms of data availability, quality, comparability and timeliness, even for basic indicators. For example, according to the latest data reporting at the international level, only 46 countries were able to provide reliable statistics on deaths disaggregated by sex, based on civil registration systems, at least once for the period 2011–2014. Less than half of all developing countries have information disaggregated by sex on labour force participation, unemployment, status in employment, and employment by occupation for at least two points over the period 2005–2014.

Measuring gender equality in areas such as environment and poverty is even more challenging. Links between gender and environment have been assessed based on qualitative or small-scale quantitative studies and cannot be extrapolated to a whole society or across countries. Household-level data on poverty, measured traditionally on the basis of either income or household consumption, do not account for the distribution of resources within households. Thus they do not allow for an assessment of poverty at the individual level, which is needed for the production of relevant gender statistics.

The comparability of gender statistics at national and international levels is also problematic, mostly due to differences in sources, definitions, concepts and methods used to obtain the data. For example, the comparability of data on earnings is affected greatly by the data source used. Establishment surveys sometimes exclude workers in small enterprises and in the informal sector. Labour force surveys, although they cover all types of workers, have to rely on self-reported wages, which may introduce reporting errors. Comparability of data is also affected by the concepts and methods used to produce them, including how questions are phrased. For instance, the way in which women are interviewed about violence may affect their willingness

and capacity to disclose their experience, undermining the quality of the data produced and also their international comparability.

Even when information is collected, it is often not tabulated and disseminated to allow for meaningful gender analysis

Yet another shortcoming is the fact that the information collected is often not exploited sufficiently for gender analysis. Data are frequently tabulated and disseminated in categories that are not relevant or are too broad to adequately reflect gender issues. For example, assessing gender segregation in the labour market is often hampered by the lack of employment data in detailed occupational categories. Another example of the underutilization of existing data relates to information collected through time-use surveys. Although data are most often collected by detailed categories of activities, published data on time use are often limited to broad categories only. Separate categories for time spent on collecting water and firewood, for example, are not often available, making it difficult to assess the impact of these specific activities on the work burden of women and men.

New statistical standards and methods have been developed

New methodological guidelines have been produced by international organizations, with the aim to improve the availability, quality and international comparability of gender statistics. The most recent guidelines include the *Handbook on Integrating a Gender Perspective into Statistics* (2015); *Guidelines for Producing Statistics on Violence against Women* (2014); *Methodological Guidelines for the Gender Analysis of National Population and Housing Census Data* (2014); and the *Handbook on Developing Gender Statistics: A Practical Tool* (2010). Another ongoing effort, undertaken by the Evidence and Data for Gender Equality (EDGE) project, is developing methodologies to measure asset ownership and entrepreneurship from a gender perspective. The project is being implemented by the UN Statistics Division in collaboration with UN-Women. Furthermore, the International Labour Organization is developing statistical guidelines to collect data on work. The guidelines reflect the definition adopted by the 2013 International Conference of Labour Statisticians, encompassing all forms of work, including own-use production of goods and services, which is particularly relevant for gender analysis.

Another achievement towards the standardization of methods and harmonization of indicators is the 2013 agreement by the United Nations Statistical Commission to use the *Minimum Set of Gender Indicators*, consisting of 52 quantitative and 11 qualitative indicators, as a guide for national production and international compilation of gender statistics.

… but additional guidance is needed

Statistical methods and gender statistics are still lagging behind in many subject areas including: decision-making positions in local government and in the private sector; poverty based on individual-level data; the quality of education and lifelong learning; the gender pay gap; social protection measures, including pensions and unemployment benefits; universal health coverage; and the impact of natural disasters. Producing relevant, accurate and timely gender statistics remains a challenge for many countries. Initiatives to develop statistical standards and national capacity, particularly on integrating a gender dimension into official statistics, should therefore be undertaken on a priority basis.

Technical note

This sixth edition of *The World's Women: Trends and Statistics* provides an update of the statistics and indicators on the situation of women and men around the world. It is a comprehensive and authoritative compilation of existing data and a source of gender-specific information on eight topics: population and families, health, education, work, power and decision-making, violence against women, environment and poverty. Underlying data for all tables and charts presented in the chapters, as well as statistics at the country level are published online in the Statistical Annex available at *http://unstats.un.org/unsd/gender/worldswomen.html.*

Statistical sources

The statistics and indicators on women and men presented in the report are based mainly on data provided by the United Nations and other international organizations that compile data from national sources and/or estimate data in a comparable manner across countries. Additional regional and official national sources and, in a few cases, research-based data, were used to supplement the available data. The use of those additional sources was essential in areas of statistics where gender-sensitive concepts and methods of measurement and data collection are still being developed, such as, for example, power and decision-making in the corporate world and in the media.

Data presented in the report might differ from those available within countries. Although mostly drawn from official statistics provided by governments, data compiled by international organizations are sometimes further adjusted for international comparability. Indicators with missing values may also be filled by estimates from international organizations. In addition, countries may have more recent data than those available at the time of the analysis.

Every effort has been made to fully cite and document the sources drawn on for the data presented in the publication. The statistics presented in previous editions of *The World's Women* may not be comparable, due to revisions to data, changes in methodology and differences in the countries or areas covered and the regional groupings employed. As a result, trend analysis based on data in different editions of *The World's Women* should be avoided. The reader is strongly encouraged to consult the original sources since they usually contain comparable and regularly updated data.

Countries, areas and geographical groupings

The World's Women 2015 covers 197 countries or areas with a population of at least 100,000 as at 1 July 2015, with the exception of the chapters on power and decision-making, violence against women and education, where countries or areas with a population of less than 100,000 have been included for selected indicators. The term "countries" refers to political entities that are independent States. The term "areas" refers to geographical entities that have no independent political status; an area is thus generally a portion of one or more independent States. In chapters 1 to 8, tables and figures cover only countries or areas for which data are available. Similarly, in the online Statistical Annex, tables cover only countries or areas for which data are available.

For analytical purposes, countries or areas are grouped into developed and developing regions[1]. Developing regions are further classified into geographical regions or subregions, following the official Millennium Development Goals regional groupings[2]. In some cases, where indicated, regions may vary, depending on the grouping used by the international organizations providing the data and the statistical clustering of countries according to selected characteristics. For a full listing of countries or areas covered and the groupings used, see table at the end of the report.

Global and regional aggregates and averages prepared by international and regional organizations are weighted averages of country data. Regional estimates computed by the United Nations Statistics Division from data at the country or area level are also weighted unless indicated otherwise as unweighted in annotations to tables and figures. Unweighted averages are usually used when the availability of data for a particular indicator is limited. In these cases, the number of countries or areas used to calculate regional averages is provided.

Symbols and conventions

- Two dots (..) indicate that data are not available or are not reported separately.

- A short dash (–) between two years (e.g. 2010–2015) indicates an average over the period unless otherwise stated. When the two-year period is followed by the words "latest available" in parenthesis (e.g. 2010–2013 (latest available)), this denotes that data refer to the latest available year in the given interval.

- A long dash (—) indicates magnitude nil or less than half of the unit employed.

- A point (.) indicates decimals. Thousands are separated by a comma (,) in numbers presented in the text and by a blank space ( ) in numbers presented in tables.

- A slash (/) between two consecutive years (e.g. 2005/06) indicates that data collection within a survey took place over a continuous period that covered a number of months within the two-year period.

- Numbers and percentages in tables may not always add to totals because of rounding.

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[1] Since there is no established convention for the designation of "developed" and "developing" countries or areas in the United Nations system, this distinction is made for the purposes of statistical analysis only.

[2] United Nations Statistics Division, 2015. Millennium Development Indicators: World and regional groupings. *mdgs.un.org/unsd/mdg/Host.aspx?Content=Data/RegionalGroupings.htm* (accessed 10 April 2015)

Contents

Chapter 1

Population and families

Key findings

- There are about 62 million more men than women worldwide. In younger age groups, men outnumber women; in older age groups, women outnumber men.
- About half of all international migrants are women, but men migrants are dominant in developing countries, mostly those in Northern Africa, Oceania, and Southern and Western Asia.
- The age at marriage has increased for both women and men.
- Child marriage has declined; still, almost half of women aged 20 to 24 in Southern Asia and two fifths in sub-Saharan Africa marry before age 18.
- The average number of children per woman declined in countries with high and medium fertility levels but increased slightly in some countries with low fertility.
- Adolescent birth rates declined almost everywhere but are still high in many African and Latin American and Caribbean countries.
- Lone mothers with children constitute about three quarters of one-parent households.
- The proportion of women aged 45 to 49 who are divorced or separated is at least 25 per cent higher than that of men in the same age group.
- Widowhood is about three times higher among women aged 60 to 64 than among men in the same age group.
- The majority of older persons living in one-person households are women.

Introduction

Population dynamics affect the lives of women and men everywhere. Declining fertility rates and increasing longevity have resulted in decreasing proportions of children and increasing proportions of older persons in the world's population. Women tend to outlive men, with the result that women outnumber men in older age groups. Subtle differences in the distribution of the population by sex have also emerged, starting at birth and extending throughout the life cycle. The global sex ratio (that is, the number of boys and men relative to the number of girls and women) increased across almost all age groups, resulting in an increasing share of boys and men in the global population.

Changes in marriage patterns and fertility suggest that, overall, women are becoming more independent, empowered and in control of their own fertility and lives. The age at marriage has increased, while fertility has declined in countries with high and medium fertility levels. Yet in many countries, child marriage and adolescent

fertility persist and a large share of the demand for family planning goes unmet.

At the same time, families are becoming more diverse. One-person households and one-parent households are more common as patterns of marriage, unions and divorce shift. One-person households are more common because of population ageing and changing norms related to intergenerational relationships and family support. Some of the changes in living arrangements are not spurred by personal choices but by larger phenomena. For example, in countries greatly affected by the HIV epidemic and by conflict, women are at higher risk of becoming young widows and children of becoming orphans. Since women and men do not often have the same opportunities in education, employment and access to their own income (see other chapters of this report), changes in living arrangements can have a bearing on the overall differences in well-being between women and men.

Demographic changes are also the background against which many dimensions of life—including health, education, labour and wealth—are being shaped. In fact, the mere distribution of the population across regions and countries largely determines the distribution of human capital, poverty and the burden of disease around the world. Therefore, any assessment of progress in the status of women vis-à-vis men needs to draw first on major demographic changes. This chapter presents trends and current levels in population composition by age and sex and migration in the first part; and marriage and unions, their dissolutions, fertility and living arrangements in the second part. Mortality is covered in the following chapter (see Chapter 2 on Health).

Box 1.1
Gaps in gender statistics related to population and families

Population statistics are routinely collected through population and housing censuses, civil registration systems and/or nationally representative sample surveys. Population and housing censuses are the primary source of information on the size and composition of the population by age and sex, as well as on other demographic topics, including migration, fertility and mortality. Most countries conduct at least one population census every 10 years.[a] For the 2010 census round (covering the decade 2005–2014), 21 countries or areas, covering 7 per cent of the world's population, did not conduct a population census, a slight improvement over the previous census decade (1995–2004), when that number was 26.

The availability of data based on household surveys has increased dramatically in the past two decades. For instance, the number of countries able to conduct Demographic and Health Surveys (DHS) or Multiple Indicators Cluster Surveys (MICS) increased from 99 (conducting 189 surveys) in 1995–2004 to 113 (conducting 241 surveys) in 2005–2014. These surveys play a crucial role in providing statistics on fertility and mortality in countries where the civil registration system is underdeveloped.[b]

The quality of data on age and sex can be affected by the way the data are reported. Errors in the declaration of age are common. In some cultural settings, skewed sex ratios at different ages can also occur as a result of underreporting or misreporting of the female population.[c]

Inconsistencies among various data sources can occur as a result of differences in data collection operations, including sampling frames and questionnaires. For example, in a number of countries, the large variations in the marital status of women over time can be explained only by differences in the data sources used. Recent research has shown that, compared to population

and housing censuses, some household sample surveys suffer from systematic "family bias". Married women with children are more likely to be included in survey samples, while single women are almost systematically underrepresented.[d] Basic demographic indicators, such as the average age at marriage or the number of children per woman, vary when different data sources are used.

Data on some demographic topics, such as on informal unions or births occurring outside of marriage, are less often collected. Only a limited number of countries collect and make data available on extramarital births. According to the *World Fertility Report 2012*,[e] only 91 countries reported data on extramarital fertility for the period 2000–2011, and only 64 have such data for the three periods, 1965–1989, 1990–1999 and 2000–2011.

Migration is one of the topics where the lack of detail impedes analysis. Data on the reasons why people migrate are often not collected and, when they are, they may be limited to only one primary reason. Women may appear considerably underrepresented in labour migration statistics since, although many of them work before and after migrating, they often cite the category of "marriage or family" as the reason for their migration.

The availability of demographic data on refugees, internally displaced persons and asylum seekers varies by categories of displaced populations. Data are more often available for refugees, particularly in countries where the United Nations High Commissioner for Refugees (UNHCR) is directly involved in data collection, using its dedicated refugee registration system. In 2013, data disaggregated by sex were available for 71 per cent of the global refugee population.[f]

a See: http://unstats.un.org/ unsd/demographic/ sources/census/census-dates.htm (accessed December 2014).

b See chapter on Health for availability and quality of vital statistics from civil registration systems.

c Goodkind, 2011; Spoorenberg, 2013; Yi and others, 1993.

d Hull and Hartanto, 2009; Kantorova, 2014; Spoorenberg, 2014.

e United Nations, 2013i.

f UNHCR, 2014.

A. Population

1. Population composition by age and sex

The world's population in 2015 is estimated at 7.3 billion people—1.6 billion more than two decades ago. Currently, 83 per cent of the global population (6 billion people) live in developing regions and that share is increasing. This has implications for the global distribution of human capital and poverty, as well as the burden of disease. The developed regions are home to the remaining 17 per cent (1.3 billion). The share of the world's population living in developing regions is as follows: an estimated 45 per cent are concentrated in Eastern and Southern Asia; 14 per cent in Sub-Saharan Africa; and almost 9 per cent each in South-Eastern Asia and Latin America and the Caribbean. Taken together, the remaining developing regions (the Caucasus and Central Asia, Northern Africa, Oceania and Western Asia) represent less than 7 per cent of the global population.[1]

The proportion of children is declining in most countries around the world

One of the most notable demographic changes in the past few decades has been the transition of the population to an older structure. Population ageing—an increase in the share of people in older age groups and a reduction in the proportion of children—is the result of a decrease in fertility and increased longevity. The global share of children aged 0 to 14 declined from 32 per cent in 1995 to 26 per cent in 2015. The decline is more pronounced in developed regions, but occurs in most countries around the world. Currently, the proportion of children in developed regions is low, at 17 per cent, compared to 28 per cent in developing regions. One region with a low proportion of children is Eastern Asia (18 per cent), dominated by population dynamics in China and its long-standing one-child policy. At the other extreme, sub-Saharan Africa has the highest proportion of children in the population, at 43 per cent.[2]

Populations in many countries are ageing rapidly

The share of older people (aged 60 and over) in the global population has increased over time. In 2015, the proportion is 12 per cent, compared to 10 per cent in 1995, and is projected to increase to 21 per cent by 2050. The older population itself is also ageing, with the proportion of those aged 80 or older projected to grow from 14 per cent in 2015, to 19 per cent by 2050.[3]

Population ageing is taking place in all regions and countries, although each of them is at a different stage in the transition. In developed regions, where the transition occurred earlier, the proportion of older persons is currently at 24 per cent. By comparison, in developing regions, the proportion is 10 per cent. Nevertheless, population ageing is also occurring in developing regions and at a faster pace than in developed ones. The same demographic shift experienced by developed regions is expected to take a shorter period of time in developing regions.[4] This means that countries in developing regions have much less time to put in place the infrastructure to address the needs of a rapidly expanding older population. A life-course approach to healthy and active ageing is becoming crucial. Continuous participation in and contribution to society, including at older ages, can be supported by promoting healthy behaviours at all ages, preventing and detecting chronic diseases early, encouraging lifelong learning, and gradual retirement at older ages (see Chapters on Health, Education and Work).

Programmes and services targeted to older persons need to take into account the fact that women tend to live longer than men (figure 1.1). Once they reach age 60, women are expected to live for another 24 years in the developed regions and for another 20 years in developing regions. By comparison, men reaching age 60 are expected to live for another 21 years in developed regions and 18 years in developing regions.

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[1]   United Nations, 2013a.
[2]   *Ibid.*

[3]   *Ibid.*
[4]   United Nations, 2013l.

Figure 1.1
Life expectancy at age 60 by sex, 1990–1995 to 2010–2015
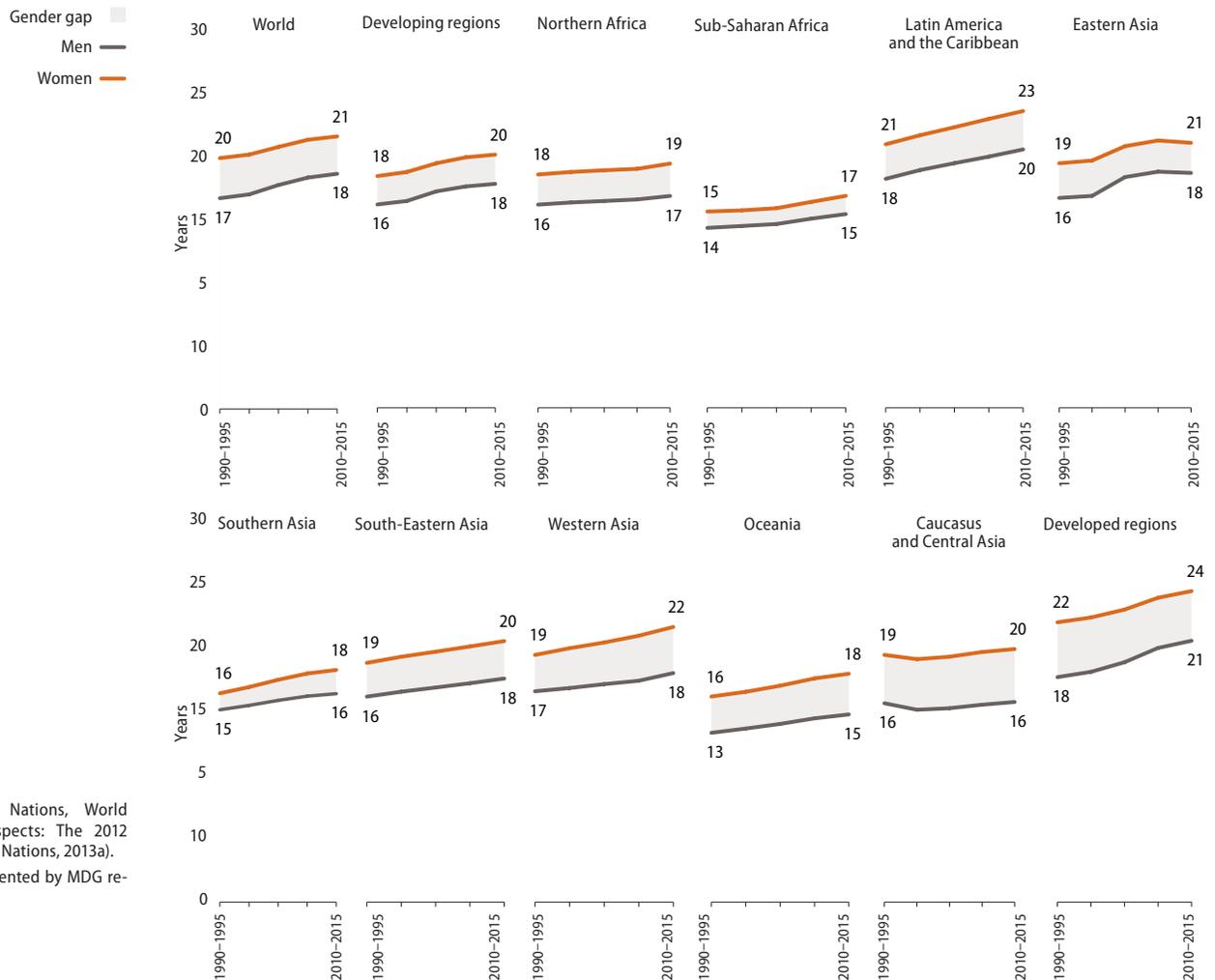
Changes in age structure have created a demographic window of opportunity for economic growth in many developing countries

The reduction in the share of children, at a time when the proportion of older persons is still relatively low, opens a demographic window of opportunity for economic growth and social development in developing countries.[5] This is a favorable period during which the share of the dependent population (children and older persons) is going down, while the share of the working population (adults) is increasing. The dependency ratio (the ratio of children and older population to the ratio of adults at working age) reached its minimum level in

2015, but is projected to stay there for only 15 years.[6] Most developed countries already have large older populations, but many developing countries can benefit from this "demographic dividend", with the appropriate economic and social policies and increased investments in human capital (education and health), particularly among children, adolescents and youth. In this short window of opportunity, women's economic participation could make a big difference. Gender equality and women's access to the full range of economic opportunities can contribute to increased productivity and improved development outcomes for their children.

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5   Pool, Wong and Vilquin (eds.), 2006; Vallin, 2005.

6   United Nations, 2013l.

Sex ratio

There are fewer women than men in the world and in some developing regions

In 2015, population projections estimate that there are 3.6 billion women and 3.7 billion men worldwide. In other words, women constitute slightly less than half of the global population (49.6 per cent). The ratio of males to females (sex ratio) indicates that there are 102 men for every 100 women.[7] Men outnumbered women by approximately 44 million in 1995 and by 62 million in 2015. This increase is the result of population growth and greater improvements in the survival rates of men compared to women. Within the same time period, the sex ratio increased by a very small margin (less than 0.5 per 100).[8]

Large variations in the ratio of men to women are found across the world, with some regions experiencing a shortage of men and others a shortage of women (figure 1.2). Women outnumber men in developed regions and in three out of nine developing regions: the Caucasus and Central Asia, Latin America and the Caribbean, and South-Eastern Asia. The surplus of women in absolute numbers is highest in developed regions and in Latin America and the Caribbean, at 36 million and 10 million, respectively. Over the past two decades, the relative shortage of men became smaller in developed regions and in the Caucasus and Central Asia, and increased in Latin America and the Caribbean (figure 1.2). Currently, the countries and areas with the relative largest shortages of men are Curaçao (82 men per 100 women), Latvia (84 per 100), Lithuania, Martinique and Ukraine (all 85 per 100) and the Russian Federation (86 per 100).[9]

Men outnumber women in Eastern Asia, Southern Asia, Oceania, and Western Asia (figure 1.2). The largest relative surplus of men is recorded in Western Asia, where estimates count 111 men for every 100 women. Eastern and Southern Asia also experience a surplus of men, with a sex ratio of 107 and 106, respectively. Three regions have the highest surplus of men in absolute numbers: 50.5 million in Eastern Asia (mainly due

to China), 49.5 million in Southern Asia (mainly due to India), and 12.1 million in Western Asia (mainly due to Saudi Arabia and the United Arab Emirates). Over the past two decades, the relative surplus of men declined in Southern Asia and Oceania and increased in Eastern and Western Asia. The increase was particularly noteworthy in Western Asia, where the relative surplus of men doubled (figure 1.2). Countries with the highest observed ratio of men to women in the world are located in this region, including Qatar (324 men per 100 women), the United Arab Emirates (228 per 100), Oman (188 per 100), Kuwait (148 per 100) and Saudi Arabia (139 per 100). In absolute terms, countries with the largest surplus of men are China (52 million), in Eastern Asia, and India (43 million), in Southern Asia. The ratio of men to women and the surplus of men in these two most populous countries largely determine the surplus of men observed at the global level. In sub-Saharan and Northern Africa, the number of women and men is almost equal.[10]

Figure 1.2
Surplus or shortage of men per 100 women by region, 1995 and 2015
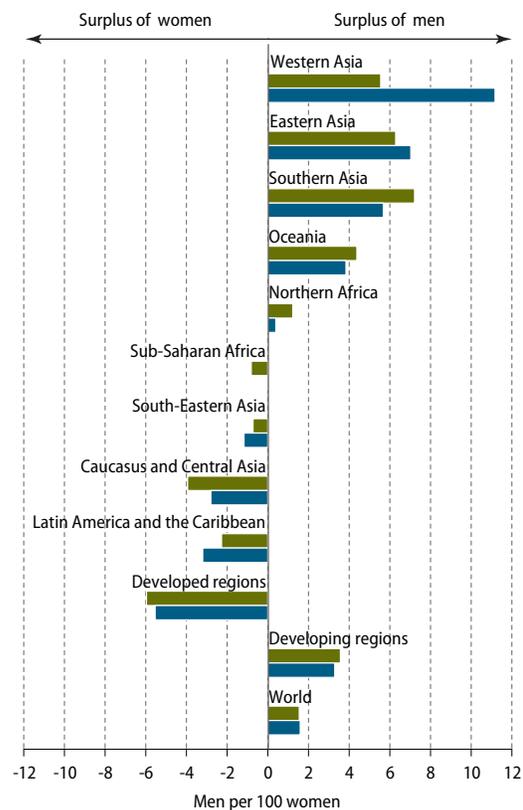
Men per 100 women

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7   In a growing number of countries, a third gender has been officially acknowledged and included in official categories. Few countries have granted legal rights to persons of a third gender who choose not to be identified as either a woman or man.

8   United Nations, 2013a.

9   *Ibid.*

10 *Ibid.*

a. Sex ratio at birth

The sex ratio of a population is determined by the sex ratio at birth—the number of baby boys born for every 100 baby girls—and, after birth, by differences in female and male mortality and migration across age groups.

Currently, more baby boys are born than girls, a by-product of enduring natural selection processes and one of the very rare constants in demography. The biological level of the sex ratio at birth tends to be close to 105 boys per 100 girls, with a standard sex ratio at birth taken as between 103 and 107 boys per 100 girls, allowing for natural regional variations. In some populations, the sex ratio at birth exceeds the standard values. Sex-selective abortion, which is reflective of long-standing cultural preferences for sons, is a major explanatory factor.[11]

Globally, the sex ratio at birth for 2010–2015 is 107 boys per 100 girls. Regional differences, however, are evident.[12] In developed regions, a sex ratio at birth of 106 is observed, compared to 108 for developing regions. The largest imbalances are recorded in Eastern Asia, with 115 male births per 100 female births, followed by Southern Asia, with a sex ratio at birth of 109, Oceania[13] at 108, the Caucasus and Central

Asia at 107, due to recent imbalances recorded in selected countries (Armenia, Azerbaijan and Georgia), South-Eastern Asia at 106, and both Latin America and the Caribbean and Western Asia at 105. With 104 boys born per 100 girls, sub-Saharan Africa is the region of the world with the lowest sex ratio at birth.

Increasing imbalances in sex ratios at birth are found in a number of countries

Over the past few decades, a number of countries and areas have displayed growing imbalances in sex ratios at birth (figure 1.3), indicating that more parents are selecting the sex of their offspring in order to have at least one son. Currently, the highest sex ratio at birth is observed in China, where 116 boys are born for every 100 girls. While higher than expected sex ratios at birth were initially found mostly in Asia, they have also been observed in Southern Europe in recent years, as well as among the South Asian diaspora living in developed countries.[14] The sex ratio at birth varies by the birth order of the child and the sex of the preceding child(ren). In general, the sex ratio at birth tends to increase with birth order and is more imbalanced in families without at least one son.[15]

Figure 1.3
Imbalanced sex ratios at birth in selected countries
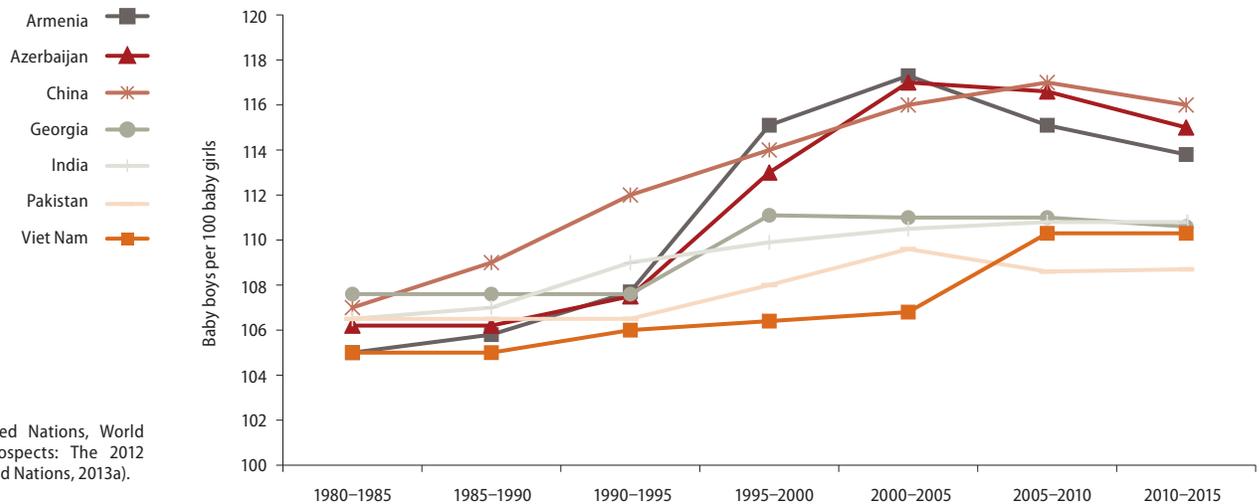
11 Attané and Guilmoto, eds., 2007; Bongaarts, 2013; Frost and others, 2013; Guilmoto, 2009; Jha and others, 2011.

12 United Nations, 2013a.

13 Australia and New Zealand are not included in this region, but in developed regions.

14 Almond, Edlund and Milligan, 2013; Dubuc and Coleman, 2007; UNFPA, 2012.

15 Arnold, Kishor and Roy, 2002, p. 780; Guilmoto and Duthé, 2013; Meslé, Vallin and Badurashvili, 2007; UNFPA, 2010, p. 17; World Vision and UNFPA, 2012, p. 82.

In some countries, son preference is declining. The experience of the Republic of Korea, for example, suggests that the sex ratio at birth can potentially return to a biologically normal value. After reaching its peak around 1990–1995, the sex ratio at birth in that country progressively declined to expected levels by 2010. Changes in social norms and societal development driven by increases in education, together with legislation against sex-selective abortions, are among the main forces driving the reversal of the trend in the sex ratio at birth.[16] In contrast, in India, while sex-selective abortions have been technically illegal since 1996, the law has had little effect so far on the sex ratio at birth.[17]

b. Sex ratio across age groups

Among younger age groups, there are more boys and men than girls and women; the opposite is true among groups of older persons

After birth, biology favours women. The slight male advantage in numbers at birth progressively disappears during childhood and young adulthood, owing to a generally higher male (compared to female) mortality at all ages (see chapter 2 on Health). An equal balance in the numbers of women and men is reached during adulthood. At the global level, there are more men than women up to age 50 (figure 1.4). After that age, when higher mortality rates for men compared to women continue to be observed, the share of women increases rapidly. Globally, the sex ratio is 95 men per 100 women in the 60 to 64 age group, but declines to 70 per 100 in the 80 to 84 age group, and to 45 per 100 in the 90 to 94 age group.

Some populations depart from this global pattern due to specific sex differences in mortality and migration. In developed regions, the balance in the numbers of women and men is reached around age 40, whereas in the developing regions it is around age 55 (figure 1.4). The difference between the two regions is mainly explained by the higher than expected sex ratio at birth and the lower than expected mortality for boys compared to girls in developing regions, particularly among children under age 5. Eastern and Southern Asia are extreme examples of this pattern. Unlike other regions, Eastern and Southern Asia have higher sex ratios not only among children and youth, but also among older adults. In these two regions, the number of women equal that of men only around age 65.

The lower proportion of women across all age groups in Eastern and Southern Asia relative to other regions may be a measure of the inequalities faced by women at all stages of the life cycle. The term "missing women," coined by Amartya Sen[18] and used extensively in the literature since then, refers to the high sex ratios observed in some Asian countries, such as China and India, compared to those found in developed countries (and in many countries in developing regions). In other words, the number of "missing women" is the number of additional women that would be found if these countries had the same sex ratios as areas of the world in which women and men received the same treatment and care. The higher mortality of women compared to other countries with similar overall levels of mortality and similar epidemiological conditions is an indicator of the neglect of girls and gender inequality. The sex ratio at birth (as shown above) and the relatively higher female mortality in childhood (see Chapter 2 on Health) play a key role in explaining the lower than expected numbers of women in some countries. More recent research points out that the "missing women" phenomenon can also be explained by premature deaths among women in later age groups.[19]

Among the other developing regions, Western Asia has the most distinct demographic profile, characterized by a much higher number of men than women at adult working ages, peaking in the 35 to 39 age group (figure 1.4). Western Asia also has the largest percentage of international migrants among its population and the only region where international migration has a significant impact on the sex ratio at adult ages. Large scale male-dominant labour migration to many Western Asian countries has brought the sex ratio of the adult population to unusually high levels. International migrants constitute nearly a third of the male population between the ages of 25 and 44 in that region. For women, the share of international migrants in the total female population in Western Asia is one in seven (figure 1.7).

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[16] Chung and Das Gupta, 2007.
[17] Jha and others, 2011.
[18] Sen, 1992.
[19] See, for example, Anderson and Ray, 2010; World Bank, 2011; Milazzo, 2014.

Figure 1.4
Age-specific sex ratio in population, world and selected regions, 1995 and 2015
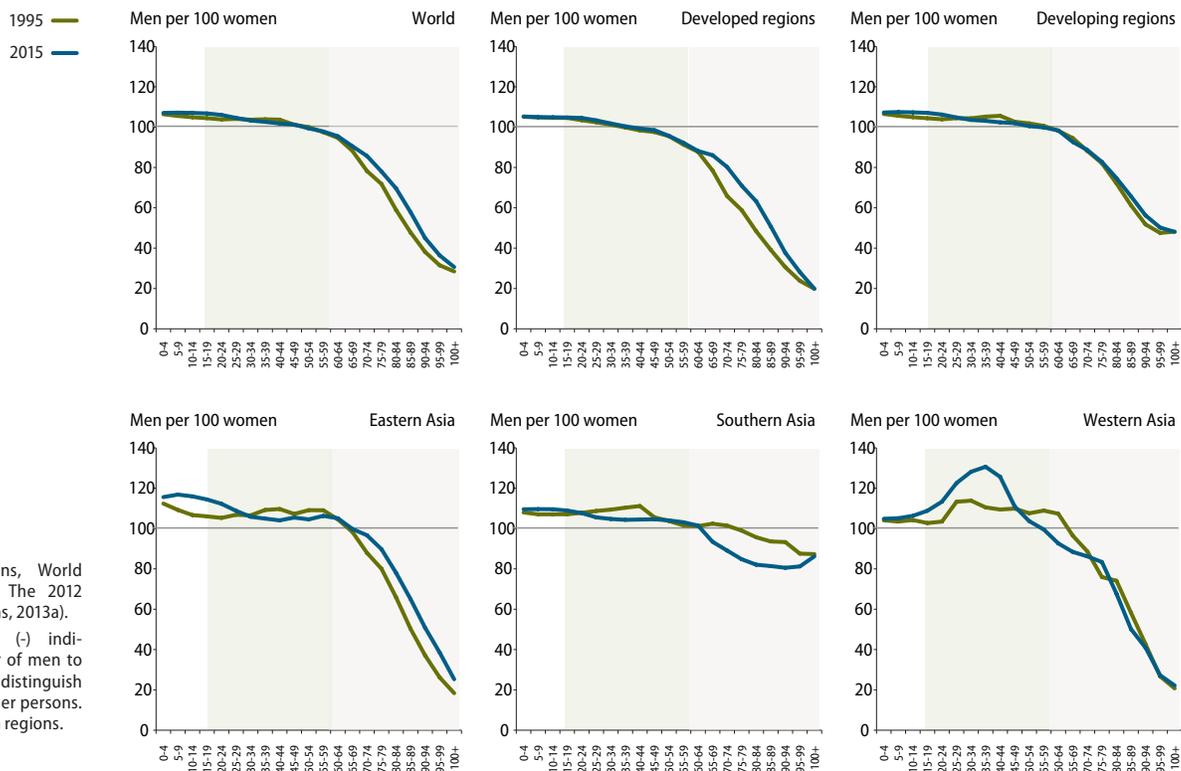
1995
2015

Men per 100 women — World
Men per 100 women — Developed regions
Men per 100 women — Developing regions
Men per 100 women — Eastern Asia
Men per 100 women — Southern Asia
Men per 100 women — Western Asia

Source: United Nations, World Population Prospects: The 2012 Revision (United Nations, 2013a).

Note: Horizontal line (-) indicates an equal number of men to women. Shaded areas distinguish children, adults and older persons. Data presented by MDG regions.

Compared to 20 years ago, the ratios of men to women across all age groups have changed slightly at the global and regional levels (figure 1.4). The slightly higher number of boys relative to girls recorded in 2015, compared to 1995, is indicative of the influence of Eastern and Southern Asia on world population dynamics. The increase is mainly explained by an increased sex ratio at birth over the past 20 years in a few countries (figure 1.3) in these two regions, as well as slightly faster improvements in boys' survival rates compared to girls' in these and other regions.

The ratio of men to women among older persons also increased (figure 1.4), due to a greater increase in the chance of survival to older ages among men than among women. Over the past 20 years, the number of men living beyond age 60 increased faster than the number of women, with a proportionate decline of women in older age groups. The increase in the ratio of men to women at older ages occurred mainly in developed regions, but also in some developing regions, including the Caucasus and Central Asia, Eastern Asia and Northern Africa (see Statistical

Annex).[20] The opposite trend has been observed in Southern Asia. The unusually high ratio of men to women at older ages observed in 1995, declined considerably over the past 20 years. Nevertheless, the ratio remains the highest among all regions in 2015.

Despite gains in survival among men, including at older ages, women continue to constitute the majority of older persons in all regions, representing 54 per cent of those aged 60 and over, and 62 per cent of those aged 80 and over in 2015 (figure 1.5). They outnumber men at older ages in both developing and developed regions, but the developing regions count proportionally less women at older ages. The lowest proportion of women among older persons and in the oldest age group is found in Southern Asia (52 per cent and 55 per cent, respectively) and Eastern Asia (51 per cent and 58 per cent, respectively). This is the result of sex imbalances that begin at birth and continue throughout life.

20 Available at able at http://unstats.un.org/unsd/gender/worldswomen.html.

Figure 1.5
Share of women among older persons
(*aged 60 and above*) **and among those aged 80 and over by region, 2015**
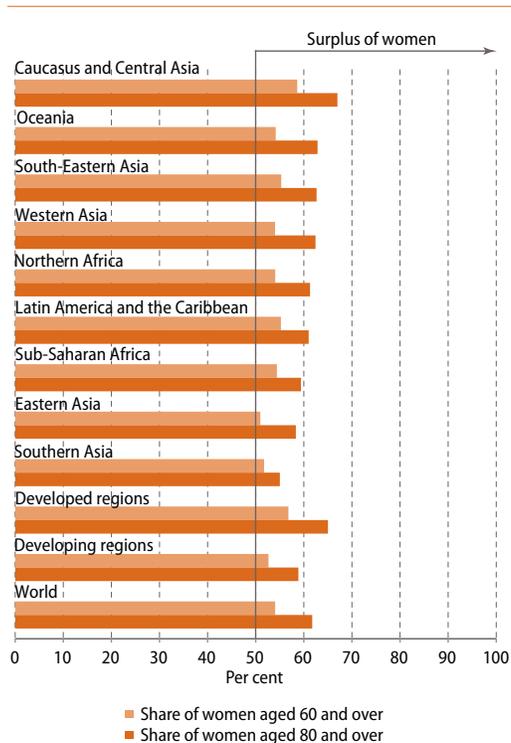
Source: United Nations, World Population Prospects: The 2012 Revision (United Nations, 2013a).

Note: The vertical line (-) indicates the same number of women and men. Data presented by MDG regions.

2. Migration, refugees and internally displaced persons

Migration can offer an empowering opportunity for women and men seeking better education, job opportunities and improved living conditions. Gender roles and attitudes acquired in the country of origin are often challenged and changed among migrants as they integrate into new communities. Such roles and attitudes may also shift in the families and communities left behind.[21] Women migrants in particular may become more empowered as they learn a new language and skills, take paid employment that secures their access to financial resources, and become familiar with new norms regarding women's rights and opportunities. Women left at home as their husbands migrate may also experience changes in their roles and assume greater decision-making power and autonomy.[22]

21 United Nations, 2006.
22 *Ibid.*

Migration has complex social and economic impacts in communities of origin and destination. In communities of origin, the emigration of highly educated and skilled individuals, often referred to as the "brain-drain", can negatively impact social development and economic growth.[23] In some contexts, this type of emigration is more pronounced among women than men. For instance, emigration rates among highly educated women from developing regions to OECD countries (member States of the Organisation for Economic Co-operation and Development) are higher than those of highly educated men in about half the countries with available data.[24]

Migration often results in remittances, which are an important source of income for many families in developing countries. In 2013, officially recorded remittance flows to developing countries reached $404 billion, far exceeding official development assistance.[25, 26] Remittances have an important role in keeping households out of poverty, including female-headed households. In some sub-Saharan African countries, for instance, the lower poverty rate among female-headed households, compared to male-headed households, is partially attributed to remittances received (see Chapter 8 on Poverty). Remittances have other gender dimensions as well. Some studies have shown that women migrants tend to remit more of their income to their families than male migrants.[27]

The effect of international migration on women and men in their new destination often depends on whether the rights of migrants are protected and if migrants and their families are integrated into society. A number of global, regional and national instruments dealing specifically with migrant rights have been adopted. However, instruments protecting the rights of migrant workers and their families[28] have been ratified by less

23 *Ibid.*
24 Widmaier and Dumont, 2011.
25 World Bank, 2014.
26 Official development assistance stood at $135 billion in 2013. United Nations, 2014c.
27 United Nations, 2006.
28 The 149 ILO Convention concerning Migration for Employment (No. 97) was ratified by 49 States as at 1 December 2013; the 1975 ILO Convention concerning Migrations in Abusive Conditions and the Promotion of Equality of Opportunity and Treatment of Migrant Workers (Supplementary Provisions) (No. 143) was ratified by 23 States; the 1990 International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families was ratified by 47 States; and the 2011 ILO Convention concerning Decent Work for

than one quarter of all UN Member States. For instance, the 2011 International Labour Organization Convention concerning Decent Work for Domestic Workers, a category of workers dominated by women, was ratified by only 10 member States as at the end of 2013. By comparison, instruments to combat human trafficking have been ratified by more than three quarters of States.[29]

International migration

Adult men are more likely than adult women to migrate internationally

Globally, the number of international migrants reached an estimated 232 million in 2013, up from 175 million in 2000, and 154 million in 1990.[30] The proportion of international migrants in the global population has changed little, from 2.9 per cent in 1990 to 3.2 per cent in 2013.[31] The sex composition of the migrant stock has remained relatively stable over time. With 111 million women migrants compared to 120 million men migrants, women constituted 48 per cent of total international migrants in 2013, compared to 48.8 per cent in 1990.[32]

Figure 1.6
Share of women and men in international migrant stock by region, 2013
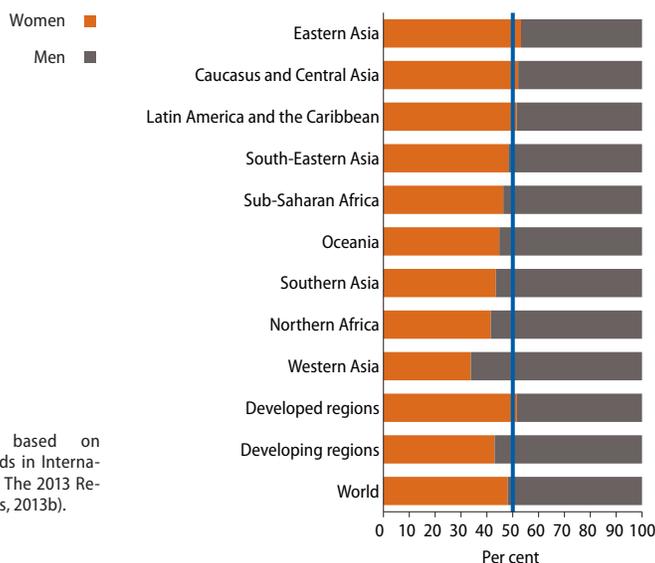
Women ■
Men ■

Eastern Asia
Caucasus and Central Asia
Latin America and the Caribbean
South-Eastern Asia
Sub-Saharan Africa
Oceania
Southern Asia
Northern Africa
Western Asia
Developed regions
Developing regions
World

0 10 20 30 40 50 60 70 80 90 100
Per cent

In developed regions, women migrants represent slightly more than half (52 per cent) of the international migrant stock (figure 1.6), a proportion that has been relatively stable over the past 20 years (51 per cent in 1990).[33] In developing regions, women's share in the international migrant stock is lower, declining from 46 per cent in 1990 to 43 per cent in 2013. Nevertheless, in some developing regions, women are more than half of international migrants, including in Latin America and the Caribbean, the Caucasus and Central Asia and Eastern Asia. In regions with an established history of immigration, such as the developed regions and Latin America and the Caribbean, the larger share of women in the migrant stock is partially the result of the longer life expectancy of women than men migrants who arrived decades earlier.[34] In the remaining developing regions, including, Northern Africa, Oceania, sub-Saharan Africa, Southern Asia and Western Asia, men's share among international migrants is higher than women's (figure 1.6). In Western Asia, women constitute the smallest share (34 per cent) of the international migrant stock.

Migration plays a role in the age and sex composition of the population in some regions and countries. In developed regions, the international migrant stock represents an estimated 11 per cent of the population. As shown in figure 1.7, the proportion of migrants in the population is higher in the working age groups, particularly ages 30 to 44. While the effect on the age structure of the host population is considerable, there is no effect on the sex ratio in the population, since the proportion of women and men migrants in the total population of the developed regions is similar (figure 1.7).

In developing regions, where less than 1.6 per cent of the population is composed of international migrants, the potential effect of international migration on the age structure of the population is less prominent than in developed regions (figure 1.7). However, the effect on the sex ratio at adult ages is more pronounced than in the developed regions, since men dominate the international migrant stock in developing regions. The difference is particularly significant between ages 25 and 44, as the share of migrant men in the population is 1.5 times higher than the share of migrant women.

Domestic Workers (No. 189) was ratified by 10 States. Source: United Nations, 2013k.

29 United Nations, 2013k.
30 United Nations, 2013b.
31 United Nations, 2013k.
32 United Nations, 2013b.

33 *Ibid.*
34 United Nations, 2013k.

Figure 1.7
International migrant stock by age and sex as a percentage of the male and female total population in 2013

Developed regions

Developing regions

Western Asia

⎯▲⎯ Men   ⎯●⎯ Women
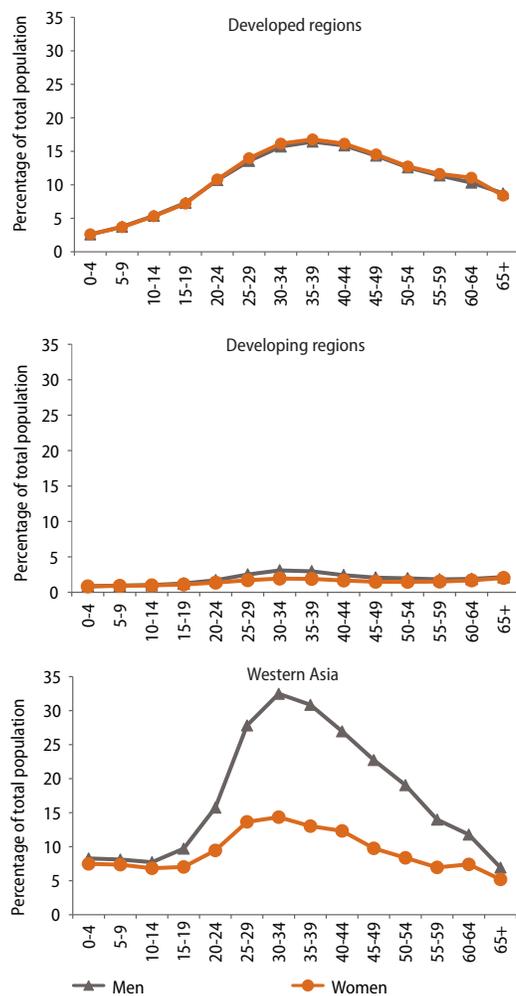
Source: Computed based on United Nations, Trends in International Migrant Stock: The 2013 Revision (United Nations, 2013b).
Note: Data presented by MDG regions.

Among developing regions, Western Asia has the largest proportion of international migrants due to strong demand for migrant workers in its oil-producing countries.[35] It is also the region with the highest impact of international migrants on the age and sex composition of the population. There, international migrants are almost a third of the male population between the ages of 25 and 44. However, although, the share of international migrants in the total female population does not reach such levels, almost one in seven women between the ages of 25 and 44 is an international migrant.

In Europe, men are more likely to migrate for work, while women migrate mostly for family reasons

The two major reasons for migration, namely, family formation and/or reunification and labour migration, play different roles in the migration of women and men. For instance, as shown in figure 1.8, for first residence permits granted in European countries, migration for work in developed countries is still dominated by men. For women and children, migration for family reasons is predominant. However, it should be noted that women also migrate in high numbers for work, and men for family reasons. Migration for educational reasons is prevalent more often among young women than young men. Nevertheless, these statistics on officially recorded reasons for migration refer only to the first residence permit. Migration is a dynamic and complex process, and many women and men entering the host country for family or educational reasons may later shift from one category to another. Even if many women are categorized administratively as family migrants, like men, they nevertheless seek better living conditions and improved prospects for their children, including through individual access to paid employment.

Gender-specific labour demands in receiving countries stimulate the extent of labour migration of women and men. This is the case, for example, in the demand for domestic workers and nurses in developed regions, or demand for workers in the oil and construction industries in Western Asia. Gender norms and stereotypes in both countries of origin and destination, reinforced by formal education and training programmes, define jobs such as domestic workers and nurses as more suitable for women, and jobs in the oil industry or construction as more suitable for men.[36]

Labour market integration can be particularly challenging for women migrants. Many women are often ineligible for social benefits and mainstream support as they enter the host country under the family reasons category, and if their partners also work. Integration is usually particularly difficult for women migrants in countries where the employment of women is generally low.[37] Nevertheless, migrant women still have more work opportunities than in their countries of origin, and tend to be more inte-

[35] Birks, Seccombe and Sinclair, 1988; Fargues, 2011; Fargues and Brouwer, 2012; Kapiszewski, 2006; United Nations, 2013m.

[36] OECD, 2014; United Nations, 2006; Widmaier and Dumont, 2011.

[37] OECD, 2014.

grated into the labour market of developed countries of destination than women from the same country who did not migrate.[38]

Figure 1.8
Numbers of people granted first residence permits by age, sex and reason, European countries, 2013
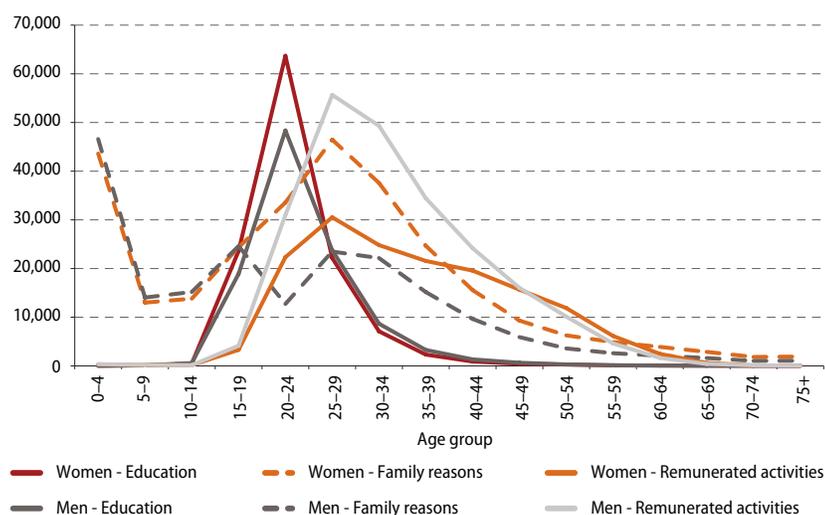
Source: Eurostat, First Permits by reason, age, sex and citizenship (accessed July 2014).

Note: Computed based on data on residence permit issued to a person for the first time. A residence permit is also considered a first permit if the time gap between the expiration of the old permit and the validation of the new permit issued for the same reason is at least 6 months, irrespective of the year the permit is issued. Four types of residence permits are covered in the data: family reasons, education, remunerated activities and other.

Internal migration

Migration within countries is more common than international migration. In 2005, an estimated 763 million people living within their country of birth were residing outside the region of their birth, and 229 million people were living in a different region than they were five years earlier.[39] Overall, the proportion of persons migrating internally is higher in developed than in developing regions.[40]

> **Among young age groups, internal migration in some developing regions is dominated by women**

Similar age and sex patterns of recent internal migration[41] are observed in both developed and developing regions (figure 1.9). Internal migration is mainly concentrated among young adults,

and slightly more so for women than for men. In developing regions, internal migration peaks at younger ages than in developed regions, due to earlier age at first marriage, less years of schooling and earlier entry into the labour market. However, the reasons associated with internal migration among younger people may differ between the sexes. In developing regions, for example, adolescent boys tend to have higher rates of migration for work and education than girls.[42] While marriage is the reason for migration for a high proportion of adolescent girls, the situation varies in some contexts.[43] After peaking at the young adult years, internal migration in both developed and developing regions declines across all ages.

Refugees and internally displaced persons

By the end of 2013, 51.2 million individuals—including 16.7 million refugees, 33.3 million internally displaced persons (IDPs) and 1.2 million asylum-seekers (having pending refugee status)—were forcibly displaced worldwide as a result of persecution, conflict, generalized violence or human rights violations. In 2013, the three countries contributing most to the total number of refugees under UNHCR's mandate were Afghanistan (2.56 million), the Syrian Arab Republic (2.47 million) and Somalia (1.12 million).[44] Developing countries hosted 86 per cent of the world's refugees. The largest numbers of refugees were hosted by Pakistan, the Islamic Republic of Iran and Lebanon.

Women and girls account for 49 per cent of the global refugee population. Women represent more than half of the refugees in all subregions of sub-Saharan Africa, except Southern Africa. Wide variations are found in the share of women among refugees. Among countries with over 1,000 refugees and complete coverage of data disaggregated by sex, the proportion of women range from 15 per cent in Israel, to 56 per cent in Rwanda. Women are underrepresented among asylum seekers (38 per cent in 2012).[45] On the other hand, stateless persons and returnees to their countries of origin[46] are more often women.

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38 Widmaier and Dumont, 2011.
39 United Nations, 2013j.
40 *Ibid.*
41 Recent internal migration is measured based on census information on residence five years ago.

42 Temin and others, 2013.
43 *Ibid.*
44 UNHCR, 2014.
45 UNHCR, 2013.
46 *Ibid.*

Figure 1.9

Percentage distribution of internal migrants by age and sex (according to the place of residence five years ago), 2000–2010 (*latest available*)

Sub-Saharan Africa

Asia

Latin America and the Caribbean

Developed regions

Age group

— Female　— Male
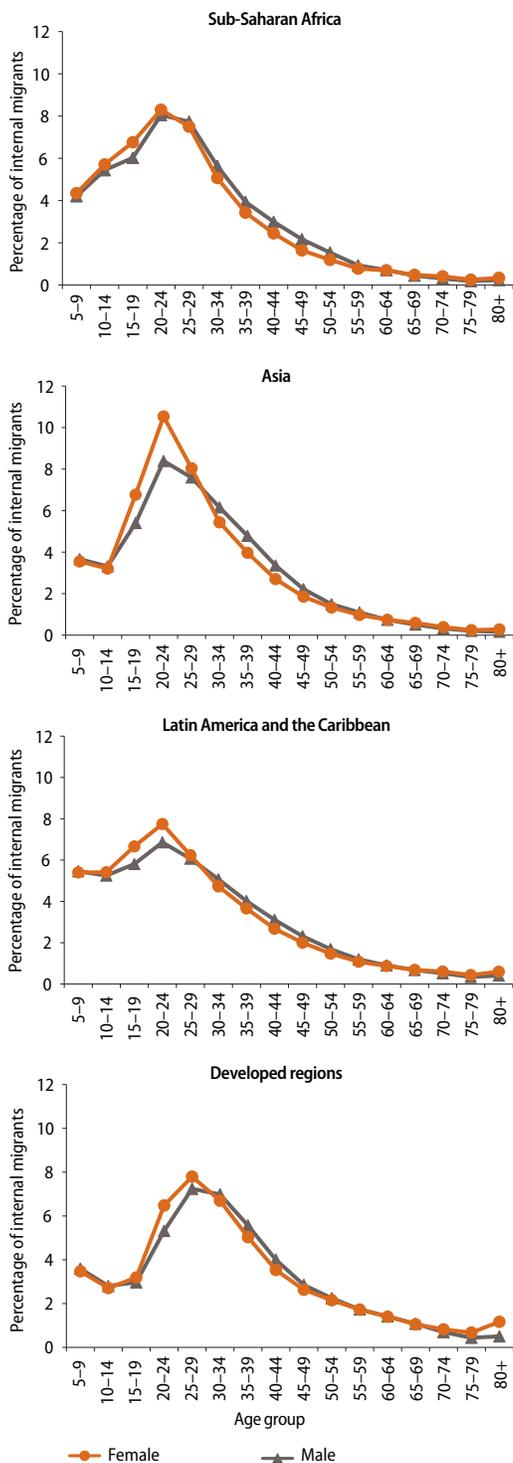
Source: Computed based on IPUMS data. IPUMS-International, 2014.

Note: Unweighted averages. Regional average based on: four countries in sub-Saharan Africa; 12 countries in Latin America and the Caribbean; five countries in Asia; and six countries in developed regions. Internal migration is measured based on census information on residence in a different administrative unit five years ago.

Refugee and internally displaced women and girls are at special risk of violence and exploitation, partly because they often lack decision-making power. Violence against women—including rape, forced impregnation, forced abortion, trafficking, sexual slavery and the intentional spread of sexually transmitted infections, including HIV—is one of the defining characteristics of contemporary armed conflict (see Chapter 6 on Violence against women). Women's vulnerability to rape and sexual assault continues during the flight from their homes, crossing of the border and at the place of destination, as well as in refugee camps or collective centres. At their final destination, women and girls may face other difficulties. For example, they may lack individual identity documents, be sidelined in decisions concerning the administration of the camps and in the formulation and administration of assistance programmes. Returning refugees and internally displaced women, particularly widows, may face more difficulties than men in reclaiming property in post-conflict situations, and may be excluded from reconstruction and rehabilitation activities. [47]

B. Families

1. Marriage and other unions

For many people, marriage is the first step in beginning a new life. However, in many countries—representing a variety of social, cultural, legal and political systems—less formal unions form the basis of family life. Included in the category of "other unions" used in this chapter are informal consensual unions and civil unions based on cohabitation and polygyny (when a man takes more than one wife).

Age at marriage

Women and men are marrying at later ages

Women and men around the world are marrying at later ages, reflecting increases in education levels, later entry into the labour force, changing norms about formal marriage and informal unions based on cohabitation, and increased economic independence and empowerment for women. Women continue to marry a few years earlier than men (figure 1.10). Currently at the global level, women marry at age 25 on average,

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[47] United Nations, 2006; UNFPA, 2006; UNHCR, 2011; UNHCR, 2012.

while men marry at age 29, about 1 year later for both compared to two decades ago.[48]

Figure 1.10

Average age at first marriage by sex and region, 2005–2012 (*latest available*)
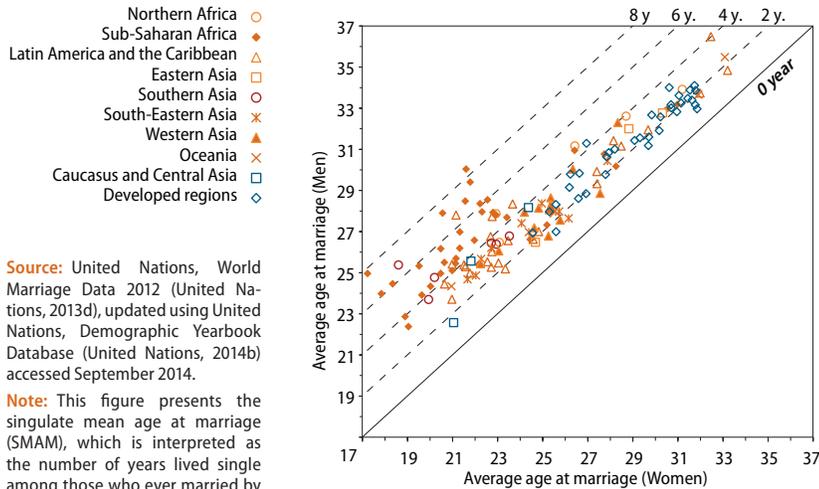
Northern Africa	○
Sub-Saharan Africa	◆
Latin America and the Caribbean	△
Eastern Asia	□
Southern Asia	○
South-Eastern Asia	✕
Western Asia	▲
Oceania	✕
Caucasus and Central Asia	□
Developed regions	◇

Source: United Nations, World Marriage Data 2012 (United Nations, 2013d), updated using United Nations, Demographic Yearbook Database (United Nations, 2014b) accessed September 2014.

Note: This figure presents the singulate mean age at marriage (SMAM), which is interpreted as the number of years lived single among those who ever married by age 50. The diagonals correspond to the indicated age difference between spouses. Data presented by MDG regions.

Age at first marriage has increased in most regions, except in Latin America and the Caribbean and the Caucasus and Central Asia. It has been the highest and has increased the most in developed regions, where women marry at age 29 on average and men at age 31. The age gap between spouses also declined the most, reaching 2.4 years, the lowest among all regions. These trends in developed regions show increased similarity between women and men in patterns of age at first marriage in a context of wider educational and employment opportunities for both of them. Increasingly, both women and men also tend to spend a period of time in an informal union before formalizing a relationship into marriage.[49]

Women continue to marry at the youngest ages in Southern Asia and sub-Saharan Africa. Currently, for women in these regions, age at marriage averages 21 and 22 years, respectively, some 7 to 8 years earlier than in developed regions, while men on average marry at age 26 and 27, respectively—4 to 5 years earlier than in developed regions. In contrast, women and men in Northern Africa marry the latest among developing regions, at age 27 and 31, respectively. There, men marry at similar ages with men in developed re-

gions, while women marry two years earlier than women in those regions.

The age gap between spouses narrowed slightly in some regions and increased in others

For women, marrying at a young age tends to be associated with a wider age gap between spouses, often resulting in greater inequality. Women who marry older men at a young age may be disadvantaged in family decision-making, including on issues related to sexual and reproductive health. They are also at greater risk of domestic violence and early widowhood.[50] The age gap between spouses remains the widest in sub-Saharan Africa (on average, men are 4.8 years older than their wives) and Southern Asia (men are an average of 4.3 years older). In the past two decades, the age gap between spouses narrowed slightly, by a few months, in four regions of the world: Northern Africa, Southern Asia, Western Asia and the developed regions. Meanwhile, in Latin America and the Caribbean and Eastern and South-Eastern Asia, the difference between the male and female average age at marriage increased, also by a few months.[51]

Child marriage

The prevalence of child marriage is high in many countries, particularly in Southern Asia and sub-Saharan Africa

Child marriage, defined as a formal marriage or informal union before age 18, is a fundamental violation of human rights. Yet, marriage before age 18 is not allowed by law, with or without parental consent, in only 10 out of 45 developed countries with available information, and 35 out of 129 developing countries with available information.[52] Girls are more likely to marry at a young age than boys. Moreover, girls are often married to older men, sometimes making it difficult for them to exercise their decision-making power within the household and partnership, including on issues related to reproductive health. Child marriage among girls can result in early pregnancy—placing the health and very survival of mothers and their babies at risk. Child brides are also more likely to experience domestic violence and social isolation, and typically have

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48 Global and regional averages are unweighted (that is, the averages do not take into account the size of national populations) and are based only on available data for a region.

49 OECD, 2011.

50 UNICEF, 2014a.

51 Unweighted averages calculated by UNSD based on United Nations, 2013d and United Nations, 2014b.

52 Minimum Set of Gender Indicators, 2015.

limited opportunities for education, a career and vocational development.[53]

Globally in 2010, an estimated 26 per cent of women aged 20 to 24 were married before age 18; this is only 5 percentage points lower than in 1995.[54] Women who married before age 15 accounted for most of the decline. Between 1995 and 2010, the proportion of women aged 20 to 24 who married before age 15 declined from 12 per cent to 8 per cent.[55] The prevalence of child marriage remains highest in Southern Asia and sub-Saharan Africa (figure 1.11). In Southern Asia, 44 per cent of women aged 20 to 24 were married before age 18 and 16 per cent before age 15. The corresponding figures for sub-Saharan Africa were 40 per cent and 12 per cent, respectively.

Among the 113 countries with available data, 42 have a prevalence rate of child marriage of more than 30 per cent, including 8 countries with prevalence rates exceeding 50 per cent (Bangladesh, Burkina Faso, Central African Republic, Chad, Guinea, Mali, Niger, and South Sudan). [56]

Informal and civil unions

Informal unions everywhere are on the rise

While marriage remains the traditional path to establishing a family, other forms of union also exist, including consensual unions or unions based on cohabitation. While these relationships are usually recognized by society, they are not necessarily formalized through civil unions and/or a legal contract, and are often not registered as unions in statistical sources. Many women and men in informal unions categorize themselves as "single" in censuses or surveys and are not listed as "married" or "in union" in datasets that look at marital status. Furthermore, in many countries, informal unions are not included as an option in census or survey forms. It is important to note that women in informal consensual unions may be disadvantaged relative to women in legal marriages, especially with respect to financial commitments in cases of separation.

In Latin America and the Caribbean, the proportion of women living in consensual unions has increased continuously, reaching high levels in

Figure 1.11
Proportion of women aged 20 to 24 who married before ages 15 and 18, 2005–2012 (*latest available*)
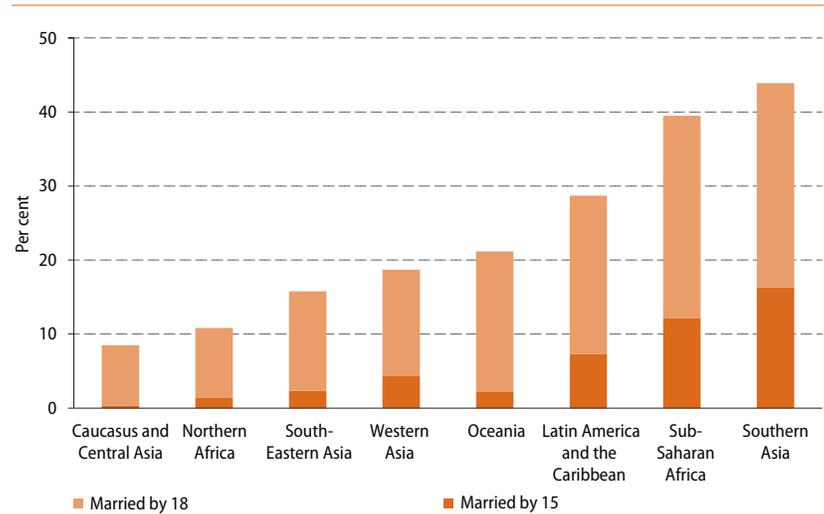
Source: UNICEF, State of the World's Children 2014 in Numbers: Every Child Counts. Personal communication (UNICEF, 2014b).
Note: Data presented by MDG regions.

most countries of the region (figure 1.12). For example, in Uruguay, the 2011 census revealed that 42 per cent of women aged 25 to 29 years were living in consensual unions, versus 16 per cent recorded in the 1996 census. Consensual unions are dominant among young persons in many other countries of the region. The proportion of women aged 25 to 29 living in consensual unions is more than 40 per cent in 8 out of 18 countries with available trend data.

In sub-Saharan Africa, consensual unions are generally less common, but are increasing in the majority of countries in the region. Some countries such as Burundi, Cabo Verde and Uganda have witnessed a sharp increase in the prevalence of consensual unions (figure 1.12). Currently, more than 30 per cent of women aged 25 to 29 are living in consensual unions in 4 out of 16 countries with available trend data (Botswana, Cabo Verde, Gabon and Uganda). In contrast to Latin America and the Caribbean and sub-Saharan Africa, informal unions are far less common across Asia, reaching, at most, 10 per cent of women aged 25 to 29.

In Europe, cohabitation is common, whether as a prelude to marriage or as a stable alternative to it

In some European countries, cohabiting partners can enter a civil union in order to legalize their relationship without marrying. Cohabiting unions are more often found among younger

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[53] UNICEF, 2014a.
[54] *Ibid.*
[55] *Ibid.*
[56] Data based on UNICEF, 2014b.

people, particularly couples without children. For instance, in 2007, the proportion of women with no children in a cohabiting union was, on average, 63 per cent at around age 20, 38 per cent at around age 30, and 23 per cent at around age 40. Among women with children, the cor-

responding proportions were 28 per cent, 14 per cent and 7 per cent.[57]

Large regional variations in cohabitation are found across Europe. Generally, the proportion of women aged 20 to 34 in a cohabiting union is higher in Northern and Western European countries than in Eastern and Southern European countries (figure 1.13). Denmark and Finland account for the largest proportion of women aged 20 to 34 in a cohabiting relationship. In contrast, the lowest proportions of women aged 20 to 34 in such relationships are found in Malta, Poland and Slovakia.

Figure 1.12

Proportion of women aged 25 to 29 years in consensual union, Latin America and the Caribbean and sub-Saharan Africa

Figure 1.13

Proportion of women aged 20 to 34 cohabiting, European countries

Source: OECD Family Database, Table SF3.3. Cohabitation rate and prevalence of other forms of partnership (OECD, 2013b).

Note: Data refer to those who have formalized their relationship through a civil union and/or legal contract and those who have not registered their relationship (but report their cohabiting status in censuses and other relevant surveys). In most countries, cohabitation refers to relationships between men and women, but same sex partnerships can be included in a few countries.

Source: United Nations, World Marriage Data 2012 (United Nations 2013d), updated using United Nations, Demographic Yearbook Database (United Nations, 2014b) accessed September 2014.

57   Eurostat, 2010.

Polygyny

Being in a polygynous union—meaning that a man has more than one wife—affects many aspects of a woman's life. Polygynous unions tend to be associated with wider age gaps between wives and husbands,[58] lower contraceptive use and high fertility.[59] There is also evidence that child survival is lower for children of polygynous unions.[60] In general, polygyny is more prevalent in rural areas, among poorer households and less educated women. For example, an analysis of data for 34 countries in sub-Saharan Africa shows that the prevalence of polygyny among women with no education is twice as high as among women with secondary or higher education.[61]

Polygyny is still prevalent in some sub-Saharan African countries

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Polygyny is common in some countries in sub-Saharan Africa, particularly West Africa (figure 1.14). Around 2010, more than a third of women aged 15 to 49 in that region were married to men who had more than one wife. In Guinea, for instance, almost half of the women aged 15 to 49 were in polygynous unions. Nevertheless, the proportions of women in polygynous relationships have been declining faster in West Africa than in any other sub-region of sub-Saharan Africa. Outside of sub-Saharan Africa, polygyny is found in a few countries in Latin America and the Caribbean, Northern Africa, and in Southern, South-Eastern and Western Asia. Yet, in these regions, the prevalence of polygyny reaches about 5 to 7 per cent, with the exception of Haiti, where 16 per cent of women were in polygynous unions in 2012, versus 20 per cent in 2000.[62]

Figure 1.14

Proportion of women aged 15 to 49 years in polygynous unions, selected African countries with available data
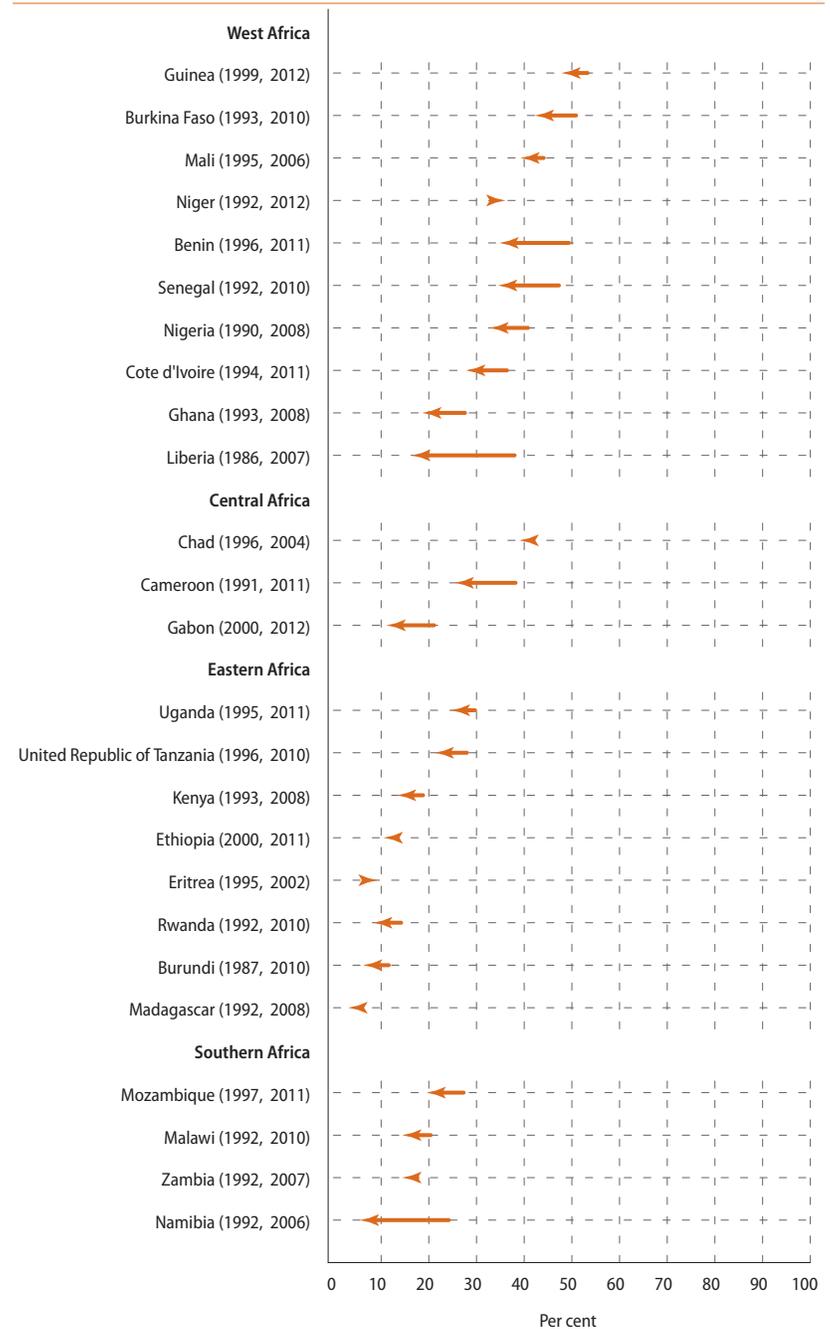
Source: Data from the Demographic and Health Surveys (DHS) Program STATcompiler (DHS, 2014).

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58 Barbieri and Hertrich, 2005; Antoine, 2006.
59 Barbieri and Hertrich, 2005.
60 Amey, 2002; Omariba and Boyle, 2007; Smith-Greenaway and Trinitapoli, 2014.
61 DHS, 2014.
62 *Ibid.*

2.   The dissolution of unions

Divorce

Women are more likely than men to be divorced or separated

Divorce or separation can have multiple disruptive and lasting consequences not only for both partners, but also for children and other dependent family members.[63] Women are less likely than men to re-marry after a divorce, and oftentimes find themselves in more vulnerable social and economic situations.

In most countries with available data, the proportion of women aged 45 to 49 who are divorced or separated is at least 25 per cent higher than the proportion of men who are divorced or separated (figure 1.15). Overall, the disparities between women and men in this regard are higher in developing than in developed regions. However, large variations are found across countries within each region, both in terms of the prevalence of divorce or separation and the gender disparities associated with them.

Figure 1.15
Proportion of divorced or separated women and men aged 45 to 49 years, 2000–2011 (*latest available*)

Sub-Saharan Africa ◆
Latin America and the Caribbean △
Developed regions ◇

Source: United Nations, World Marriage Data 2012 (United Nations, 2013d), updated using United Nations, Demographic Yearbook Database (United Nations, 2014b) and Demographic and Health Survey (DHS) Program, data from STATcompiler (DHS, 2014).

Note: The diagonals correspond to the indicated difference between female and male proportions. Countries in Asia and Northern Africa are not displayed due to the low proportions of women and men divorced or separated in those regions.

An increasing number of women are divorced or separated

Divorce is on the rise globally. The percentage of divorced or separated women in Latin America and the Caribbean and in the developed regions has increased. In the developed regions, over 17 per cent of women aged 45 to 49 on average are divorced or separated, while in Latin America and the Caribbean, the prevalence is about 16 per cent. However, these regional figures hide

large variations among countries. For example, among developed countries, the prevalence of divorced or separated women aged 45 to 49 in the Czech Republic (24 per cent) and Lithuania (22 per cent) is more than twice that of women in Japan (8 per cent) and Slovenia (10 per cent).

In sub-Saharan Africa, the prevalence of divorce or separation is generally lower, but is increasing, with large variations among countries. In some countries of the region, the proportions of divorced or separated women have reached levels comparable to those observed in developed regions, as well as in Latin America and the Caribbean. For example, in Gabon and Uganda, more than 20 per cent and 17 per cent of women aged 45 to 49, respectively, are currently divorced or separated.

The prevalence of divorce remains low in Asia and Northern Africa compared to other regions of the world. In the latter region, the proportions of divorced or separated women aged 45 to 49 have been increasing very slowly during the past 20 years and currently stand at about 5 per cent. Large variations are found across Asia, with three broad regional patterns emerging: an East Asian pattern characterized by increasing divorce rates (for example, the proportion of women aged 45 to 49 in the Republic of Korea who are divorced or separated has almost tripled between 1995 and 2015); a Southeast Asian pattern characterized by declining divorce rates until recently; and a South Asian pattern with relatively stable and low divorce rates.[64]

Widowhood

Widowhood is about three times higher among women aged 60 to 64 than among men of the same age

Among persons aged 60 to 64, widowhood is about three times more common among women than men (figure 1.16). This is a direct result of the higher survival rates among women than men and the lower probability of women than men remarrying after the death of their spouse. Widowhood among women of this age group is most prevalent in developing countries, particularly in some parts of Asia and sub-Saharan Africa, where mortality levels are higher, women often marry older men, and remarriage after the death of a male spouse is less common than in other regions.

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63 See, for example, Härkönen, 2014; Bernardi and Radl, 2014.

64 Dommaraju and Jones, 2011.

The highest levels of widowhood (above 40 per cent among women aged 60 to 64) are found in some sub-Saharan African countries, especially in those countries that experienced political events such as conflicts (for example, in Burundi, Rwanda and Sierra Leone), as well as those with high HIV prevalence (such as Lesotho, Malawi and Zimbabwe). In addition, given the level of polygyny in the region (as shown earlier), when a man passes away it is usual that two or more women would become widows.

Early widowhood has increased for women in countries afflicted by conflict and HIV

One of the results of the conflicts and HIV epidemics that have plagued many sub-Saharan African countries is early female widowhood. For example, in Lesotho and Zimbabwe—two countries with a high prevalence of HIV, women became widows at significantly younger ages in the early 2000s than in the 1990s (figure 1.17). In countries with high HIV prevalence, an increase in widowhood in the early 2000s is consistent with the 10-year time lag in mortality that followed the peak of the HIV epidemics in the mid-1990s. In Zimbabwe, the proportion of widows in the 30 to 34 age group tripled between 1992 and 2002. As for the impact of conflict on widowhood, data for Rwanda show that as a result of the civil war and genocide in the early 1990s, the proportion of widowed women aged 30 to 34 increased nearly sixfold between 1991 and 2002.

The prevalence of widowhood in Asia has also been relatively high compared to other regions. The most recent available data for countries in the region show widowhood prevalence levels of over 40 per cent among women aged 60 to 64 in Indonesia, Mongolia and Pakistan. In the latter two countries, widowhood levels among men aged 60 to 64 were also considerably higher than in other countries in the region.

The prevalence of widowhood at age 60 to 64 is lowest in countries of the developed regions, where in general it has been steadily declining, mainly due to improvements in survival rates almost everywhere.[65] However, a few exceptions are found, especially in some countries of Eastern Europe such as Belarus, the Republic of Moldova, the Russian Federation and Ukraine,

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[65] Trends in prevalence of widowhood among women aged 60 to 64 are presented in the Statistical Annex at http://unstats.un.org/unsd/gender/worldswomen.html.

Figure 1.16
Proportion of widowed among persons aged 60 to 64, by sex, 2000–2013
(*latest available*)
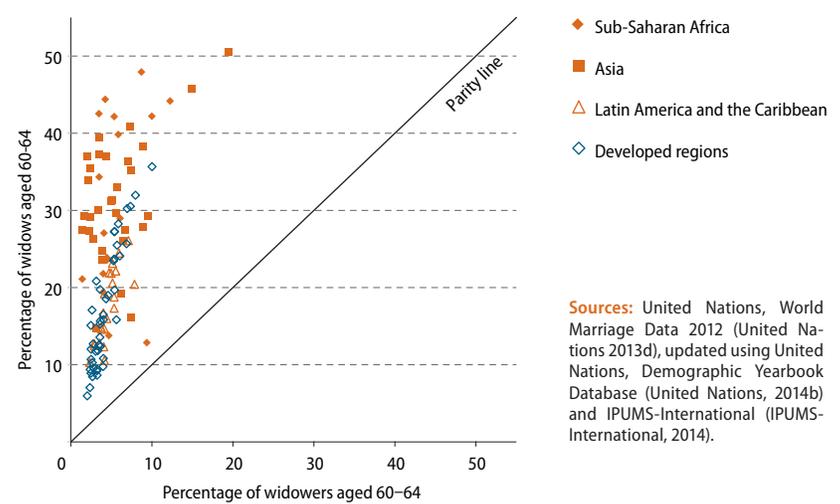
Sources: United Nations, World Marriage Data 2012 (United Nations 2013d), updated using United Nations, Demographic Yearbook Database (United Nations, 2014b) and IPUMS-International (IPUMS-International, 2014).

Figure 1.17
Early female widowhood in countries with high HIV prevalence or conflicts
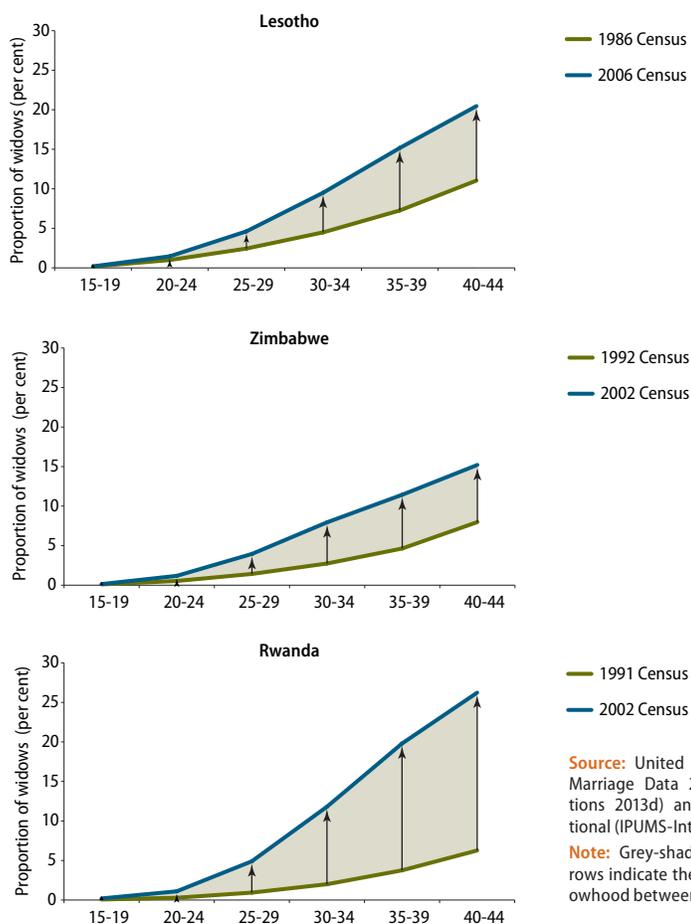
Source: United Nations, World Marriage Data 2012 (United Nations 2013d) and IPUMS-International (IPUMS-International, 2014).
Note: Grey-shaded areas and arrows indicate the increase in widowhood between censuses.

where, among women, it did not decline and even increased slightly due to negative trends in male mortality, [66] and in the Caucasus and Central Asia, where it has not changed among women over the past two decades, mainly due to persistently high male mortality rates.[67] In Latin America and the Caribbean, the prevalence of widowhood among women aged 60 to 64 is relatively low, similar to developed regions, and a general declining trend is observed.

3. Fertility

Almost all aspects of women's and men's lives are touched by decisions about how many children to have and when to have them. A number of factors influence how parenthood unfolds, including age at marriage, educational and employment opportunities available to women and men, their access to family planning, gender roles and expectations, and the overall social and economic context in which they live. All of these factors have undergone changes over the past two decades, as shown in the following Chapters of this report (see in particular the chapters on Education and Work). Parenthood models also shift as women's and men's roles in the family and society change. Although such changes are often slow, women are increasingly involved in decision-making in the public sphere (see Chapter 5 on Power and decision-making), while men are participating more in the raising of children. At the same time, men's rights to parental benefits are being addressed in a growing number of countries (see Chapter 4 on Work).

Globally, in 2010–2015, the total fertility rate reached 2.5 children per woman, compared to 3 children in 1990–1995 (figure 1.18). In developed regions, the total fertility rate reached its lowest point in 1995–2000, but in 2010–2015, it returned to the level observed 20 years earlier of 1.7 children per woman. In Europe, women have the fewest children, less than 1.6 children per woman on average in 2010–2015. The average number of children per woman has been increasing slightly in that region, however, after reaching its lowest level in the late 1990s and early 2000s.

Eastern and Southern Europe are the sub-regions of the world with the lowest fertility level (less than 1.5 children per woman in 2010–2015). In the late 1990s and early 2000s, women in Eastern Europe had less than 1.3 children on average. In the developed regions, many women and men desire a small number of children and choose to have them at later ages. The rising enrolment of women in higher education has resulted in an upward shift in the mean age at childbearing,[68] from 27 years in 1980–1985 to above 29 years in 2010–2015.[69] In that regard, the recent upturn in fertility observed across countries in developed regions can be explained by a decline in the pace of fertility postponement in recent years.[70]

In the developing regions, the average number of children per woman declined by 0.7 children, to reach 2.7 in 2010–2015. Despite a decline of more than one child on average over the past 20 years, sub-Saharan Africa is still by far the region where women have the largest number of children—4.6 in 2010–2015. Within that region, the total fertility rate varies from less than 2.5 in Southern Africa to more than 5.6 in Central and West Africa.[71]

Not all childbearing is intended, and millions of women around the world who would like to delay or stop it do not use any method of contraception. In many countries, a gap—called the unmet need for family planning—exists between contraceptive use and the desire of women to have children. Worldwide, 145 million women of reproductive age who are married or in union had an unmet need for family planning in 2014, increasing to 219 million if women using traditional contraceptive methods are included.[72] This unmet need is especially high (more than one in four women who are married or in union) in sub-Saharan Africa and in countries where fertility is high[73] (see Chapter 2 on Health).

The satisfaction of women's unmet family planning needs is important, especially since it enables women and men to decide freely on the number, timing and spacing of their children. Unmet need for family planning also has a considerable impact on population numbers. It is estimated that if the current unmet need for fam-

66   Grigoriev, 2012; Meslé, 2004; Shkolnikov and others, 2004.

67   Becker and Urzhumova, 2005; Duthé and others, 2014; Guillot, Gavrilova and Pudrovska, 2011; Guillot and others, 2013; Sharygin and Guillot, 2013.

68   Ní Bhrolcháin and Beaujouan, 2012.

69   United Nations, 2013h.

70   Bongaarts and Sobotka, 2012.

71   United Nations, 2013h.

72   United Nations, 2013f.

73   United Nations, 2013d.

Figure 1.18
Average number of children per woman, by region, 1990–1995 to 2010–2015
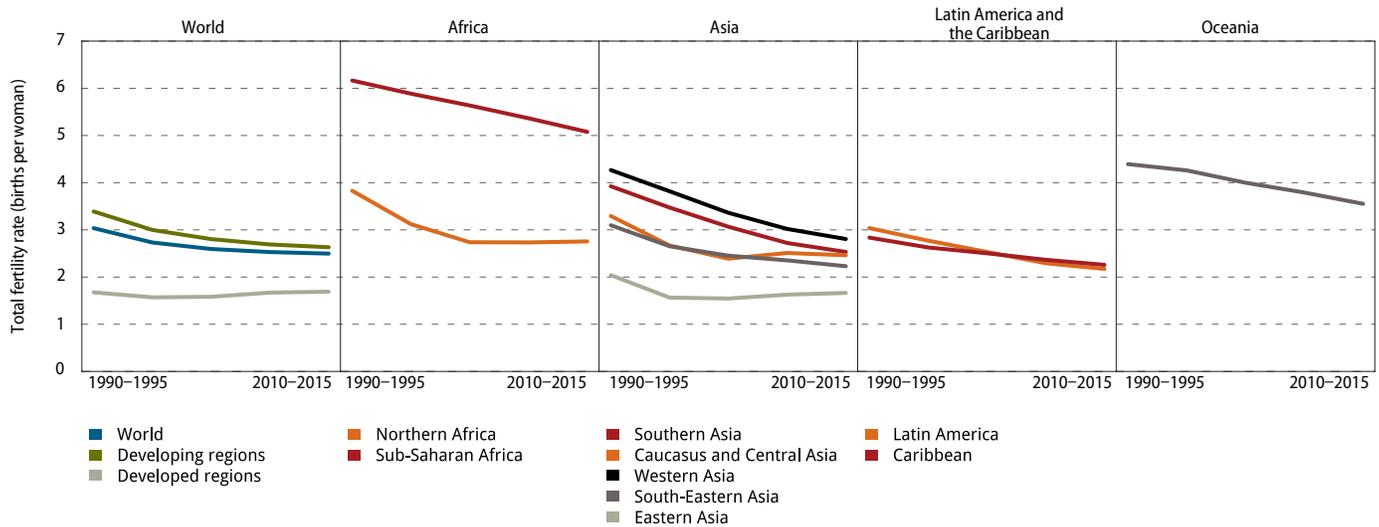
Source: United Nations, World Population Prospects: The 2012 Revision (United Nations, 2013a).
Note: Data presented by MDG regions.

ily planning was satisfied over the next 25 years at an accelerated pace (compared to historical trends) in 97 developing countries (excluding China), the total population would be about 562 million less people in 2050 than what current trends suggest.[74]

Adolescent birth rate

Despite a general decline, the adolescent birth rate is still high in a number of countries

Reducing the adolescent birth rate (births among women aged 15 to 19) is essential for improving the sexual and reproductive health of women and, ultimately, the social and economic well-being of adolescents. Over the past 20 years, the decline in the adolescent birth rate was almost universal (figure 1.19), but progress has slowed in recent years and adolescents in many countries still experience high birth rates. This is especially the case in a number of countries in sub-Saharan Africa and in Latin America and the Caribbean. Angola, Mali and Niger had adolescent birth rates of above 170 births per 1,000 girls aged 15–19 years in 2010–2015. Adolescent fertility also remained high (at around 100 births per 1,000 girls in 2010–2015) in some countries in Latin America and the Caribbean (Dominican Republic, Guatemala and Nicaragua). High adolescent

birth rates are generally related to early marriage, unintended pregnancy, unsatisfied demand for family planning and school dropout.[75]

Figure 1.19
Adolescent birth rate by country and region, 1990–1995 and 2010–2015
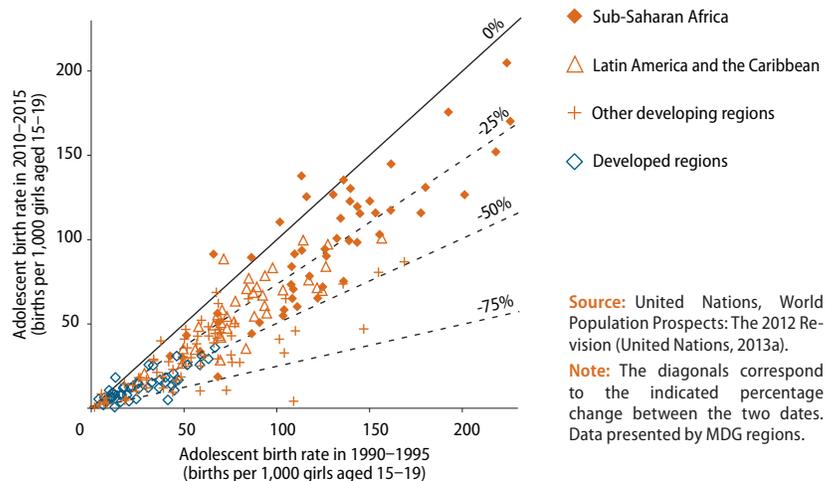
Source: United Nations, World Population Prospects: The 2012 Revision (United Nations, 2013a).
Note: The diagonals correspond to the indicated percentage change between the two dates. Data presented by MDG regions.

Births outside marriage

Marriage and fertility are becoming increasingly delinked. More people currently get married after having children or have children without getting married. In countries where informal unions are socially acceptable, extra-marital fertility is common, while in other countries such

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[74] Moreland and Smith, 2012.

[75] United Nations, 2013g.

unions are slowly becoming more socially acceptable than in the past. Trend data, based on 64 countries, show that the share of extra-marital births has been increasing since the 1970s, and there is currently a larger variation in the prevalence of extra-marital fertility across countries.[76]

The countries and areas with the highest prevalence of extra-marital fertility in 2000–2011 are in Latin America and the Caribbean: French Guiana (87 per cent), Jamaica (85 per cent), Panama (83 per cent), Venezuela (83 per cent) and Colombia (80 per cent).[77] In comparison, the few countries with available data in Asia show very low levels of births outside of marriage. Extra-marital fertility is also becoming more common in OECD countries. The share of children born outside marriage tripled, from 11 per cent in 1980 to almost 33 per cent in 2007. The rate is particularly high among Nordic countries, with Iceland, Norway and Sweden having more births outside of marriage than within. By contrast, extra-marital fertility is rare in countries where the cohabitation rate is also low, as in Greece, Japan and the Republic of Korea.[78]

Childlessness

Childlessness is increasing in almost all regions

Whether by choice or not, many women remain childless throughout their reproductive lives. Over the past few decades, the prevalence of childlessness (measured as the proportion of women aged 45 to 49 who have never had a child) has been generally on the increase worldwide. Childlessness reaches about 3 per cent in settings with low prevalence of contraceptive use, where large families are generally considered desirable, and where marriage or union tends to be early and universal.[79] In the past, higher levels of childlessness have been associated with some sexually transmitted infections. For example, in the 1970s and earlier, the prevalence of childlessness in sub-Saharan Africa declined due to success in reducing sexually transmitted infections. However, more recently, it is increasingly linked to later age at marriage, the proportion of women who never marry, postponement of childbearing

to older and less-fecund ages, and the deliberate choice not to have children.

In recent years, the highest levels of childlessness were found in developed regions (figure 1.20). In some countries in these regions (Finland, Ireland and Spain), nearly one in five women are childless at the end of their reproductive lives. In contrast, childless women aged 45 to 49 are generally less common in developing regions. Among developing regions, countries in Latin America and the Caribbean have some of the highest proportions of childless women; however, childlessness does not exceed 15 per cent in any country. In countries of sub-Saharan Africa, the proportions of childless women are lower, at less than 10 per cent, and are increasing only slightly. Low proportions of childlessness are also generally recorded throughout Asia, where less than 10 per cent of women aged 45 to 49 are childless. Still, childlessness is quickly gaining ground in some Asian countries (such as Singapore, Thailand and the Republic of Korea), where the proportions of childless women have more than doubled between 1990 and 2010. The Caucasus and Central Asia is the only region of the world where childlessness has stagnated or has even declined in recent years. Indeed, this trend was observed mainly in Central Asia and should be interpreted in the context of recent fertility increases in the region.

4.   Living arrangements

Living arrangements are also changing. Declining fertility rates, increasing age at first marriage and the increasing prevalence of divorce and never marrying are leading to smaller families, one-parent families and one-person households made up of young people. Living arrangements for young women and men are influenced by differences in education and employment opportunities, as well as gender differences in the norms and expectations related to starting a family. As a result, women tend to make the transition from childhood to adulthood at an earlier age than men. For instance, in European countries on average, half of women move away from home by age 24, live with a partner by age 26, and have a child by age 30. In comparison, half of men move away from home by age 26, live with a partner by age 29 and have a child by age 34.[80]

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76 United Nations, 2013i.

77 Ibid.

78 OECD, 2011.

79 Bongaarts and Potter, 1983.

80 Eurostat, 2010.

As young adults, men are more likely than women to live alone

In 40 countries with available data,[81] women represent less than half of young people (aged 15 to 29) living in one-person households. However, large variations are found among regions as well as countries within the same region. Among developing regions, the share of women aged 15 to 29 in one-person households is lowest in sub-Saharan Africa. It is slightly higher in Latin America and the Caribbean as well as in Asia, where some countries, including Cambodia, Kyrgyzstan and Viet Nam, are getting very close to parity. In developed regions, the share of women among young people living alone is high in all countries with available data, ranging from 40 per cent in Ireland to 49 per cent in France, Hungary and Portugal.

The proportion of women and men living in one-person households is expected to increase in older age groups as well, since the proportion of the population who never marry is rising slightly. At the global level, 6 per cent of women aged 45 to 49 had never married or entered into union in the 1990s; this proportion increased to 9 per cent between 2000 and 2011.[82] The increase was larger in developed regions (from 7 per cent to 12 per cent), compared to developing regions (from 6 per cent to 8 per cent). Among developing regions, the share of women who never married or lived in union varies widely—from 6 per cent or less in Asia, Northern Africa and sub-Saharan Africa to 16 per cent in Latin America and the Caribbean.

Lone mothers make up more than three quarters of one-parent households

With the increase in divorce and separation and in the share of children born outside marriage, one-parent households (households in which children are raised by only one parent) are more common in many countries in both developing and developed regions.[83] Around 2010, the proportion of one-parent households in countries with available data ranged from 4 per cent in Albania to 20 per cent in Latvia.

Figure 1.20
Percentage of childless women aged 45 to 49 years, around 2000 and after 2005
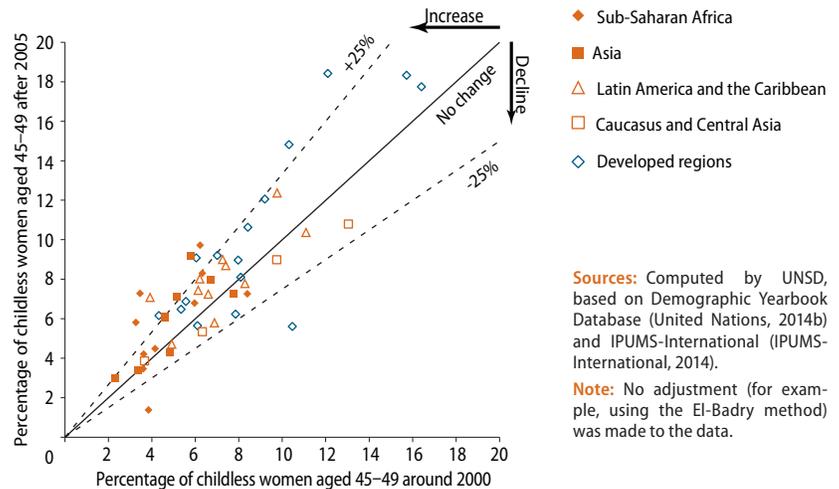
Sources: Computed by UNSD, based on Demographic Yearbook Database (United Nations, 2014b) and IPUMS-International (IPUMS-International, 2014).

Note: No adjustment (for example, using the El-Badry method) was made to the data.

In about three quarters of cases, the lone parent is the mother. This is usually related to the fact that mothers are awarded custody of children. The share of lone mothers is relatively stable, with a possible slight decline between 2000 and 2010, indicating that an increasing proportion of children live with their fathers or in joint custody. The mother and child(ren) of lone-mother households are likely to face challenging social and economic circumstances. Lone mothers, for example, are more likely to be poorer than mothers living with a partner and poorer than lone fathers (see Chapter 8 on Poverty).

Children's living arrangements are also changing as a result of changes in marriage and fertility patterns. The majority of children—both girls and boys—continue to live in households with both parents, however, an increasing proportion of children live in less traditional forms of households. For instance, the proportion of children in one-parent households has increased in most countries with available data, particularly in developed regions and Latin America and the Caribbean.[84] Currently, in OECD countries, 73 per cent of children under age 18 live with two married parents, and an additional 11 per cent live with two cohabiting parents, 15 per cent live with one parent, and 1 per cent with neither parent.[85] In developing regions, living arrangements for children are slightly different. In sub-Saharan Africa, for example, a region with a high propor-

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81   Based on data from IPUMS-International, 2014.
82   Averages computed by UNSD on the basis of United Nations 2013i. Data series for 105 countries.
83   United Nations, 2014b.

84   United Nations, 2014d.
85   OECD, 2011.

tion of orphans (often due to HIV and conflict) and fostered[86] children, only 59 per cent of children live with both parents, while 25 per cent live with one parent. The remaining 16 per cent, most of whom are fostered children, do not live with either of their parents.[87]

At older ages, women and men live more independently than before, often alone or as a couple without younger generations present in the household. This trend is largely the result of demographic ageing, increasing financial security and shifting family norms.[88] Living arrangements at older ages are different for women and men, particularly in developed regions, and marital status is a major determinant of such arrangements. As shown earlier, in most countries there are more widows than widowers. Older women are more likely than older men to survive their spouses since women have lower mortality rates and tend to marry men that are a few years older. Older women are also less likely than men to remarry after their spouse dies. Men, on the other hand, are more likely than women to be in a marital union. The proportion of people in a marital union in 2005–2008 was 80 per cent among men aged 60 years and over and 48 per cent among women of the same age.[89] Other factors contribute to the living arrangements of older persons. In some societies, social norms on intergenerational relationships and family support prescribe that younger generations provide for their parents in old age. Such norms have changed in many countries, particularly when large proportions of older persons have access to their own pensions and income, and there are fewer children and grandchildren to provide support.

Figure 1.21

Proportion of persons aged 60 and over living alone, by sex, selected countries with available data
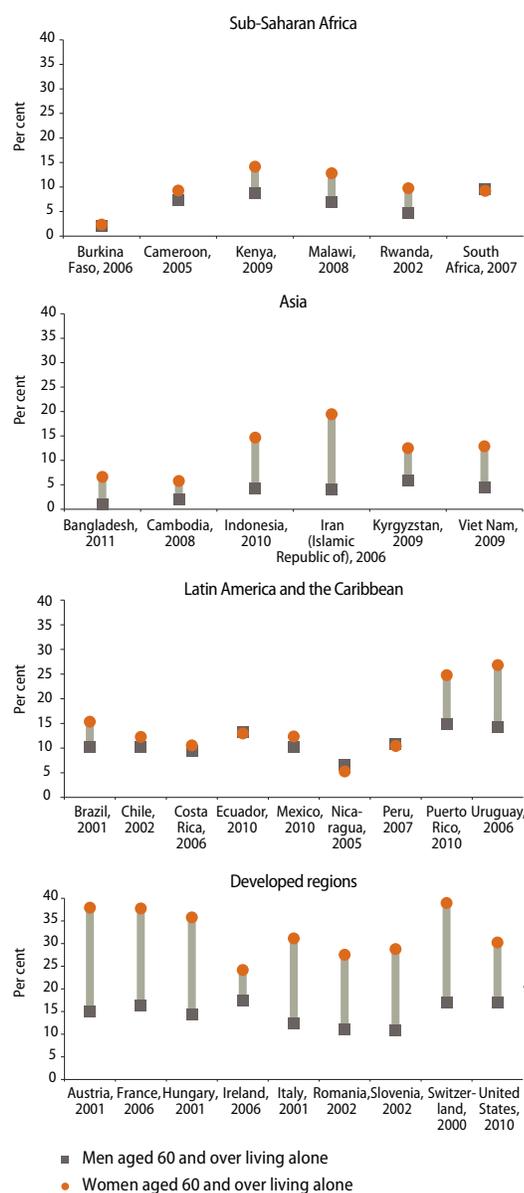
Source: Computed by UNSD based on IPUMS-International (IPUMS-International, 2014). Note: The percentages indicate the percentage of women or men living alone among the female and male population aged 60 and over.

At older ages, women are more likely than men to live in one-person households

Globally, older women are more likely than older men to live in one-person households (19 per cent versus 11 per cent, respectively) and less likely than men to live with a spouse and no children (22 per cent versus 29 per cent, respectively).

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86 Fostering refer to sending children to live with relatives or other persons that are not biological parents while at least one of their parents is alive.

87 Unweighted averages for 30 countries based on the latest available DHS data over the period 2015–2013 (accessed January 2015).

88 United Nations, 2013l.

89 *Ibid.*

Living arrangements differ greatly between developed and developing regions. Overall in developed regions, older persons are more likely to live independently of younger family members. The differences in living arrangements between women and men are also wider in developed regions. The proportion of older persons living alone is 33 per cent for women and 16 per cent for men, and the proportion of older persons living with a spouse and no children is 37 per cent for women and 58 per cent for men. In developing regions, living arrangements for older persons are similar between women and men.[90]

Figure 1.21 presents the proportions of women and men aged 60 years and over living alone in selected countries with data available. In many countries, the proportions of women in that group living alone are higher compared to men of the same age. Wide variations are found across regions and countries in the proportion of women of this age living alone. In Switzerland, for example, it is close to 40 per cent, while among their counterparts in Burkina Faso, in sub-Saharan Africa, it is less than 2.5 per cent.

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90 *Ibid.*

Chapter 2

Health

Key findings

- Life expectancy over the past 20 years has risen for both sexes—reaching 72 years for women and 68 years for men in 2010–2015. The gender gap tends to widen as life expectancy increases.
- Health conditions related to pregnancy and childbirth, combined with HIV/AIDS, are the leading cause of death among young women aged 15 to 29 in developing regions, mainly due to the heavy toll of these deaths in sub-Saharan Africa.
- Maternal health has improved considerably over the years, yet in Southern Asia and sub-Saharan Africa only half of pregnant women have adequate care during childbirth.
- Injuries top the list of causes of death among young men aged 15 to 29 in developing and developed regions, and among young women aged 15 to 29, in developed ones.
- The prevalence of tobacco smoking is higher among men than women in all regions.
- The prevalence of diabetes and obesity has increased for both sexes, and current levels of obesity are higher for women than for men.
- Breast and cervical cancers are the most common cancers affecting women.
- Men are at a higher risk than women of the same age of dying from cardiovascular disease, but more women than men die from the disease since they tend to live longer.

Introduction

Good health is a fundamental human right and a necessary precondition for individual and societal development. It is defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.[1]

The differences in the health of women and men everywhere are determined by three interrelated factors: development, biology and gender. Each of these factors contributes to distinct health trajectories for individuals throughout the life cycle.

Development, understood as the development of health systems, but also of improved access to water, sanitation and transportation infrastructure, provides the overall context for the burden of disease. While the shift in the composition of the global health burden towards non-communicable diseases has been achieved in developed regions, communicable diseases, along with maternal, nutritional and neonatal conditions, continue to take a heavy toll in some developing regions, particularly sub-Saharan Africa, Oceania

and Southern Asia. Universal health coverage, which refers to systems in which all people have access to adequate health care without financial hardship and in an equitable manner, has been instituted in only some developed countries.[2] Its prioritization in developing regions is likely to be based on each country's epidemiological conditions, demographics, economic resources and current state of the health system.[3]

Biology determines the health needs and vulnerabilities specific to women and men. It is one of the main factors behind men's increased risk for a number of health problems, their higher mortality (starting from day one and extending throughout their lives), and their shorter life expectancy. However, medical and technological improvements over several decades are extending the lives of both men and women. In the case of women, maternal and reproductive health needs are increasingly being addressed through improved health systems and the delivery of services.[4] For example, complete cover-

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1 WHO, 1946.

2 WHO and World Bank, 2014.
3 Boerma and others, 2014.
4 United Nations, 2014a.

Box 2.1
Gaps in gender statistics on health

Many of the indicators used in health and disease monitoring programmes have internationally agreed definitions. However, not all countries collect or provide quality data disaggregated by sex and/or age.

Over the years, the availability and quality of many health indicators have improved, but large gaps remain—mostly related to data quality. Mortality indicators, for example, require good quality data (that is, data that are complete and accurate) on births and deaths by age, sex and cause. Such data are produced on a regular basis by most countries with well-functioning civil registration systems. Many countries, however, lack a civil registration system with national coverage. For example, 95 out of a total of 195 countries lack complete death registration, where "complete death registration" means that 90 per cent or more of all deaths are recorded. Almost half of those countries are in sub-Saharan Africa; the rest are in Asia, Latin America and other parts of Africa.[a] Furthermore, complete civil registration systems do not always translate into reliable and timely vital statistics. According to the latest information available at the international level, only 46 countries are able to provide reliable death statistics by sex at least once for the period 2011–2014.[b]

When reliable data from civil registration systems are not available, other sources such as population censuses or household surveys are used to estimate mortality statistics. However, these sources come with their own limitations. Mortality data obtained from censuses and surveys are infrequent and may suffer from sampling and enumeration errors. They are often subject to misreporting (for example, on age or cause of death) or underreporting (of births or deaths), which can lead to inconsistencies across data sources for the same country and period.[c]

The International Classification of Diseases (ICD) is the standard classification used to monitor the incidence and prevalence of diseases and other health problems, maintained by the World Health Organization (WHO). The current version, ICD-10, endorsed by the Forty-third World Health Assembly in May 1990, came into use by WHO member States starting in 1994.[d] Although this internationally agreed system is used in more than 100 countries to report mortality by cause of death, issues of data coverage and quality are common, with wide variations among and within regions. A 2007 study[e] showed that only 118 of 193 member countries, corresponding to 75 per cent of the world's population, reported cause-of-death data to WHO at least once over the period 1996–2005. Regional coverage was 100 per cent for Europe but only 6 per cent for Africa. Furthermore, out of 118 countries, only 31 of them, representing 13 per cent of the global population, produced high-quality data on causes of death.[f]

Reliable data on maternal mortality are also difficult to obtain and usually have to be estimated because of the poor quality of national data.[g] Even in developed countries with well-functioning civil registration systems, maternal deaths may be underreported for a number of reasons. These include: misclassification of the ICD coding and undetected or unreported pregnancy (more common in deaths in the early stages of pregnancy, the later postpartum period, or among either very young or old pregnant women). Such underreporting occurs even more frequently in countries with deficient civil registration systems and where data on maternal mortality come from surveys and population censuses.[h]

While data availability has improved over the past 20 years, major gaps in health data remain.[i] At the core of efforts to address these gaps must be the strengthening of birth and death registration systems, including the production of reliable cause-of-death data. Also essential are the implementation of household surveys covering priority health areas, the disaggregation by sex in all health-related questions in surveys and censuses, and the integration of a gender perspective at all stages of the production of health statistics.[j]

a Civil registration coverage file (maintained by the United Nations Statistics Division and updated in October 2014), United Nations, 2014b.

b Demographic Yearbook database, last accessed January 2015, United Nations, 2015a.

c See for example UNICEF, 2014a, regarding child mortality.

d WHO, 2014a.

e Mahapatra and others, 2007.

f In countries using a recent ICD revision, this means that more than 90 per cent of deaths are medically certified with a cause of death, and less than 10 per cent of deaths are coded to ill-defined categories.

g WHO, UNICEF, UNFPA, World Bank and the United Nations Population Division, 2014.

h *Ibid*.

i United Nations, 2006.

j United Nations, 2015b.

age of antenatal care services has been achieved in some regions, including developing regions. Other aspects of maternal health have also improved. Nevertheless, stark gaps remain among and within countries 20 years after the 1995 Beijing Platform for Action was adopted, including in access to skilled care and emergency services during childbirth. As a consequence, maternal mortality is still unacceptably high in some developing regions.[5]

Gender inequality and gender norms and expectations continue to exert a strong influence on the health conditions affecting women and men. Practices such as early and forced marriage, to-

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5   See relevant sections in this chapter.

gether with poor access to information and education, lack of decision-making power within the couple, and violence against women increase the exposure of adolescent girls and adult women to sexually transmitted infections, including HIV. They also play a role in early pregnancies and the risk of unsafe abortions, increasing the likelihood of maternal death and morbidity. Traditional gender expectations can also have a harmful effect on men. Men smoke tobacco and drink alcohol to a much greater extent than women. Together with unhealthy diets and inactivity, smoking and heavy drinking are among the most important behavioural health risk factors for non-communicable diseases.

This chapter aims to shed light on the different health trajectories of women and men in developed and developing regions. The first part of the chapter draws on key aspects of women's and men's health, including life expectancy, the global burden of disease and risk factors to health. The second part looks at the interplay of development, biology and gender as they relate to specific health conditions associated with major life stages: early childhood, adolescence and youth, reproductive years and older years.

A. Women's and men's health

1. Life expectancy at birth

Life expectancy has increased for both women and men over the past 20 years

Between 1990–1995 and 2010–2015, life expectancy at birth[6] increased for both sexes. At the global level, women's life expectancy rose from 67.1 to 72.3 years, and from 62.5 to 67.8 years for men. Women tend to live longer than men and, in 2010–2015, women's life expectancy was higher than men's by 4.5 years, on average. However, large regional disparities are found. Women live 6 to 8 years longer than men in Latin America and the Caribbean, the developed regions, and the Caucasus and Central Asia, but only 2 to 3 years longer in sub-Saharan Africa and Eastern and Southern Asia.[7]

The increase in life expectancy for women and men is observed in all regions and most countries, but the improvement has not followed the same pattern everywhere (figure 2.1). Advances in life expectancy stagnated in sub-Saharan Africa during the 1990s as a consequence of the HIV epidemic. Since HIV/AIDS hit women harder than men in that region,[8] the gender gap in life expectancy decreased from 2.9 years in 1990–1995 to 1.7 years in 2000–2005. During that period, the effect was most striking in Southern Africa, where life expectancy at birth dropped from 66 to 54 years for women and from 59 to 51 years for men. More recently, the trend in life expectancy has reversed, mainly due to a slowdown in the spread of new HIV infections and greater access to and more efficient HIV treatment, together with other health improvements.[9] Although women's life expectancy recovered more than men's, the gender gap of 2.4 years in 2010–2015 in sub-Saharan Africa has not yet reached the pre-AIDS-crisis level (figure 2.1).

The gender gap generally widens as life expectancy increases (figure 2.1). Sub-Saharan Africa has the narrowest gender gap (2.4 years in 2010–2015), a consequence of high mortality levels overall, the ongoing HIV epidemic and generally high maternal mortality.[10] The region is also home to all 30 countries in the world with a life expectancy under 60 years. Sierra Leone has the lowest life expectancy at birth in the world, at 46 years for women and 45 years for men, followed by Botswana (47 years for women, 48 for men) and Swaziland (49 years for women, 50 for men). Botswana and Swaziland are also the countries where women in 2010–2015 were expected to die before men (women's life expectancy is 1.5 years less than men's in Botswana and 1.2 years less in Swaziland).

At the opposite end of the spectrum, the two regions with the highest female life expectancy also have some of the widest gender gaps. In developed regions, women have an average life expectancy of 81.1 years—6.8 years longer than men. In Latin America and the Caribbean, women have an average life expectancy of 77.9 years—6.4 years longer than men. In both regions, the gender gap has decreased slightly over

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6 Life expectancy at birth is an indicator of the overall health status of a population. It is derived from age-specific mortality rates and denotes the average number of years a newborn child can expect to live given the current levels of mortality.

7 United Nations, 2013a.

8 UNAIDS, 2013.

9 United Nations, 2013b.

10 WHO, UNICEF, UNFPA, World Bank and the United Nations Population Division, 2014.

Figure 2.1
Life expectancy at birth by region and sex, 1990–1995 to 2010–2015
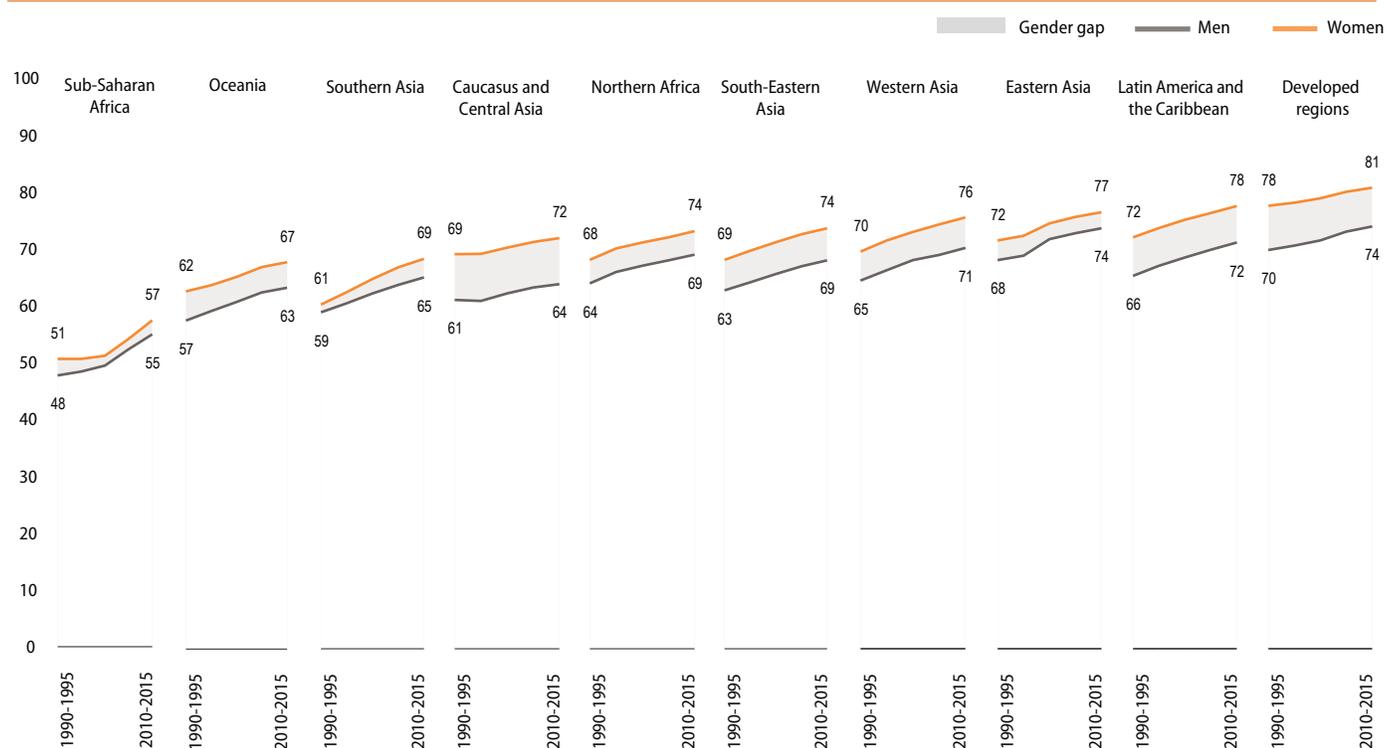
Source: United Nations, World Population Prospects: The 2012 Revision (2013a).
Note: Includes estimates for 1990–1995 up to 2005–2010 and projections (medium fertility) for 2010–2015.

the last 20 years as a result of faster progress in extending the lives of men.

Countries in developed regions have some of the highest rates of life expectancy in the world (figure 2.2). Women in Japan, for example, can expect to live 86.9 years on average, longer than women in any other country. In 2010–2015, women in 41 countries had a life expectancy exceeding 80 years—up from 12 countries two decades ago.[11] For the first time, men in some countries (Australia, Iceland, Japan and Switzerland) can also expect to live 80 years or longer. Furthermore, in 38 countries, men's life expectancy exceeded 75 years in 2010–2015 (up from only five countries in 1990–1995). Almost all of the countries with the highest life expectancy can be found in developed regions (with the exception of Singapore).

The largest difference in life expectancy by sex is found in the Russian Federation, where women live on average 13 years longer than men (74 ver-

sus 61 years). The seven countries with a gender gap of 10 or more years are all countries of the former Soviet Union (Belarus, Estonia, Kazakhstan, Latvia, Lithuania, Russian Federation, and Ukraine). Drinking and smoking among men in these countries are key factors explaining this gap.[12] Similar factors are also associated with the high gender gap, of 8.1 years, in countries in the Caucasus and Central Asia.

Unusually small gender gaps in life expectancy for a given level of mortality are observed in Eastern and Southern Asia. This suggests unequal gender norms and discriminatory practices. Eastern Asia has the second narrowest gender gap among regions (2.8 years) in a context of high life expectancy at birth (the third highest for women and second highest for men among all regions). Over the past 20 years, the gender gap in life expectancy in Eastern Asia has diminished slightly as a result of a much steeper increase in life expectancy for men than women. A small gender gap (3.3 years) is also observed in Southern Asia, representing an improvement

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11 Based on 182 countries or areas with an estimated population of at least 100,000 in 2015 and that are part of the Millennium Development Goals country list.

12 Leon, 2011.

from 20 years ago, when the difference in life expectancy between women and men was only one year (61 years for women and 60 years for men).

2. Mortality and causes of death

Globally, men have higher mortality rates than women across all age groups

The risk of dying shifts dramatically over the course of one's life (figure 2.3). It is very high in the first week and month after birth, then drops sharply, reaching a low point around age 5–10, before rising steadily into old age. Mortality rates also vary by region and by sex, and are higher for both women and men in developing regions. For both sexes combined, in developing regions, the mortality rate of children under 10 years of age is at least 10 times higher than in developed regions, and is about twice as high among adults.[13]

In general, men have a significantly higher risk of death than women at all ages in both developed and developing regions. Relatively high mortality levels in developing countries, due in large part to infectious diseases, tend to have an equalizing effect on gender differences. In contrast, differences in mortality rates between women and men are pronounced in developed regions, where infectious diseases play only a minor role as a cause of death.

Causes of death also vary by age and sex, and the patterns observed across regions and countries are closely linked to the development of health systems and the epidemiological transition from communicable to non-communicable diseases. The ICD developed by WHO includes three major categories of causes of death: the first includes communicable diseases,[14] but also maternal, neonatal and nutritional conditions;[15] the other

Figure 2.2
Life expectancy at birth by sex, 2010–2015
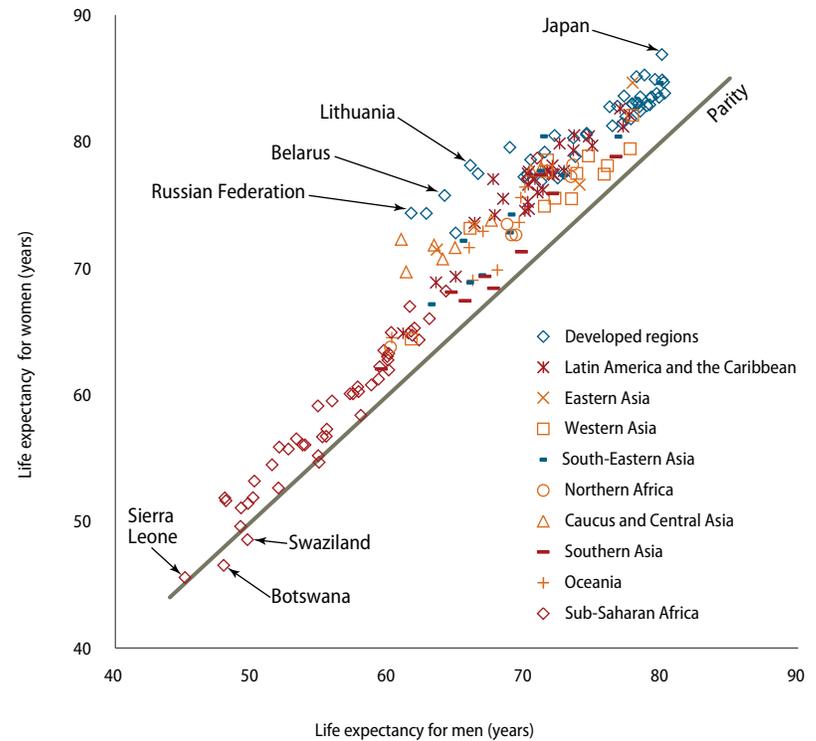
Source: United Nations, World Population Prospects: The 2012 Revision (2013a).

Figure 2.3
Mortality rate over the life cycle by sex and region, 2010–2015
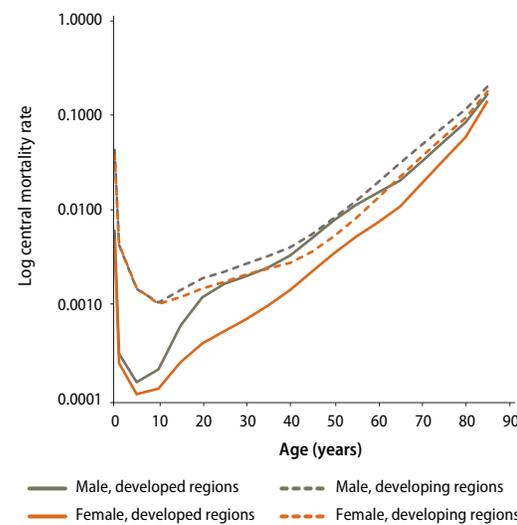
Source: United Nations, World Population Prospects: The 2012 Revision (2013a).
Note: UN Population Division regions.

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13 United Nations, 2013a.
14 Communicable (or infectious) diseases are caused by micro-organisms, such as bacteria, viruses or parasites and can spread from person to person or animal to person. Lower respiratory infections, HIV/AIDS and diarrhoeal diseases are three of the most prominent communicable diseases. Leading risk factors for such diseases include unsafe water and sanitation, poor hygiene, unsafe sex, and inadequate health services (WHO, 2014a).
15 Maternal, neonatal and nutritional conditions are health conditions related to pregnancy and childbirth, the neonatal period or to nutritional deficiencies, respectively (WHO, 2014a).

Figure 2.4
Distribution of deaths by major categories of causes of death and by sex, world, 2000 and 2012
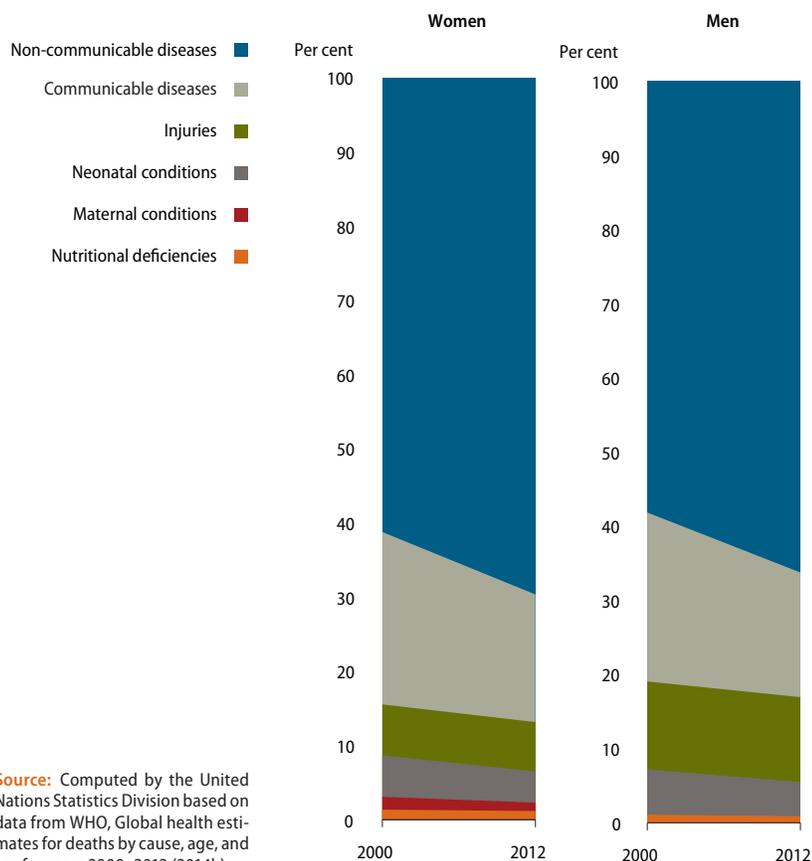
Non-communicable diseases ■ (teal)
Communicable diseases ■ (grey)
Injuries ■ (olive)
Neonatal conditions ■ (grey)
Maternal conditions ■ (red)
Nutritional deficiencies ■ (orange)

two categories are non-communicable diseases and injuries.[16]

Non-communicable diseases continue to increase their share among all causes of death

Figure 2.4 shows the percentage distribution of the major causes of death for women and men

[16] Non-communicable diseases are diseases that are non-transmissible and often—but not always—of long duration and generally slow progression. The four main types of non-communicable diseases are cardiovascular diseases (such as heart attacks and stroke), cancer, chronic respiratory diseases (mostly chronic obstructed pulmonary disease and asthma) and diabetes. Most non-communicable diseases are strongly influenced by common and preventable risk factors such as tobacco use, physical inactivity, unhealthy diets and excessive use of alcohol. The third major category of causes of death is injuries. It includes unintentional injuries, such as those resulting from road accidents, falls, drowning and poisoning, along with intentional injuries, such as self-harm (suicide), interpersonal violence and collective violence (WHO, 2014a).

worldwide in 2000 and 2012. In 2012, non-communicable diseases were the leading cause of death, responsible for over 70 per cent of all female deaths and 66 per cent of all male deaths worldwide. Since 2000, the share of non-communicable diseases as a leading cause of death increased by eight percentage points for both women and men, mostly at the expense of communicable diseases, whose share decreased from 23 to 17 per cent. Currently, non-communicable diseases are the dominant cause of death in all regions except sub-Saharan Africa.

The change in the balance between communicable and non-communicable diseases reflects the continuing global trend of epidemiological and health transition. It is a consequence of changes in demographic age structures, patterns of disease and risk factors, and the development of health systems. An increase in the proportion of older persons increases the share of non-communicable diseases among all causes of death. Also, the risk factors associated with communicable diseases such as undernutrition, unsafe water and poor sanitation are decreasing in importance as a consequence of economic development, and improvements in basic infrastructure and in health systems.

Demographic changes and development progress also explain the decrease in the share of other less prominent—but mostly preventable—causes of death. The share of deaths caused by neonatal conditions decreased between 2000 and 2012 by around 25 per cent for both girls and boys, reaching around 5 per cent for boys and 4 per cent for girls. The share of deaths caused by maternal conditions decreased by 34 per cent, down to 1 per cent in total female deaths. The share of deaths caused by nutritional deficiencies declined by 20 per cent for the female population and 14 per cent for the male population.

The share of deaths caused by injuries, on the other hand, has remained mostly unchanged. Injuries are much more common among males than females. In 2012, for example, injuries caused twice as many deaths among boys and men (3.4 million, or 12 per cent of all deaths) than among girls and women (1.7 million, or 7 per cent of all deaths).

Figure 2.5
Distribution of deaths by major categories of causes of death, sex and region, 2012
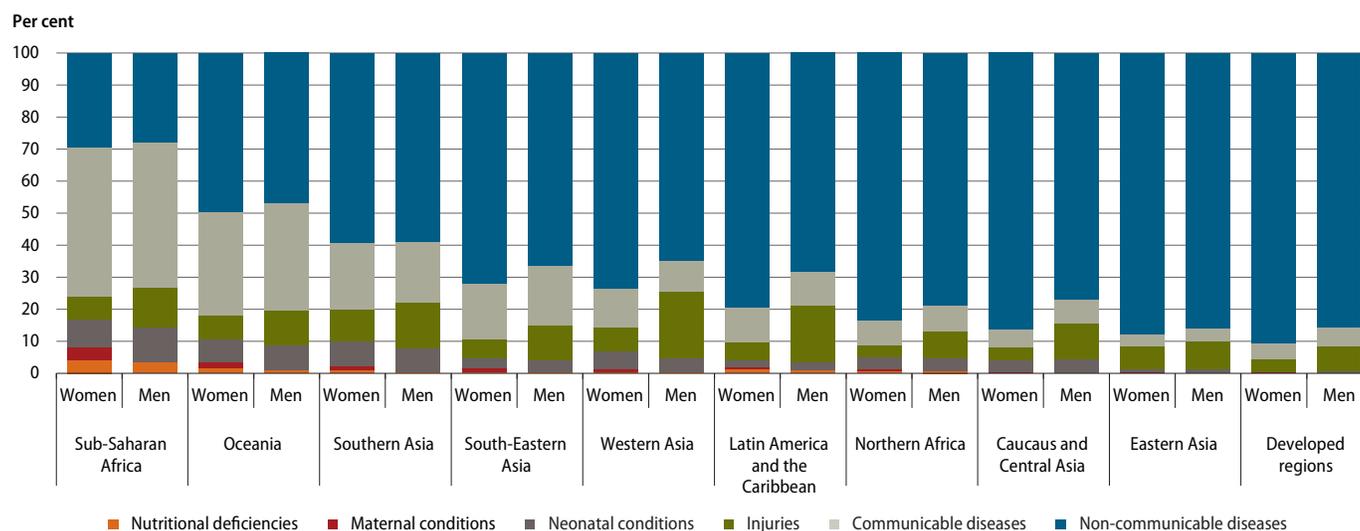
Per cent

Legend: ■ Nutritional deficiencies ■ Maternal conditions ■ Neonatal conditions ■ Injuries ■ Communicable diseases ■ Non-communicable diseases

Source: Computed by the United Nations Statistics Division based on data from WHO, Global health estimates for deaths by cause, age, and sex for years 2000–2012 (2014b).

Communicable diseases remain the most prevalent cause of death in sub-Saharan Africa

The distribution of causes of death varies by region (figure 2.5). Although communicable diseases account for only about one fifth of deaths globally, they are the leading cause of mortality in sub-Saharan Africa, accounting for almost half of all deaths. At the other extreme are developed regions, where the proportion of communicable diseases in all deaths is only 5 per cent for women and 6 per cent for men; non-communicable diseases, on the other hand, account for 90 per cent of all deaths in women and 85 per cent of all deaths in men.

Injuries are much more common among men than among women

Injuries are the cause of death with the widest disparities between women and men. The largest differences can be observed in Latin America, where the share of deaths due to injuries is three times higher for men than for women (18 per cent compared to 6 per cent), followed by Western Asia (21 per cent compared to 8 per cent) and the Caucasus and Central Asia (11 per cent compared to 4 per cent), where the share is almost three times higher for men than for women. The smallest differences are found in Eastern Asia, where the share is 8 per cent of male deaths and 7 per cent of female deaths. In Eastern Asia, the

share of injuries among all male deaths is among the lowest, similar to the proportion observed in developed regions. In contrast, the share of injuries among all female deaths is high, mainly due to a higher share of self-harm, falls and road accidents than in other regions. The region with the highest share of injuries among all female deaths is Southern Asia (10 per cent). There, female mortality rates caused by self-harm and falls and their share in all female deaths are higher than in any other region.[17]

High levels of male deaths due to injuries are often associated with risk-taking behaviour that can be related to certain gender roles and expectations. On the other hand, the high levels of female deaths due to injuries, especially in countries in Southern and Eastern Asia, are most likely linked to violence against women and their disadvantaged position in society. For instance, a study in rural Bangladesh, where women experience much higher rates of violent death than men, showed that these deaths—particularly suicide—were associated with physical and mental abuse by husbands and relatives in the context of childlessness, rejection by future husband, or out-of-wedlock pregnancies among unmarried women. Social and economic hardship and abandonment were also associated with divorced and widowed women who died violently.[18]

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[17] WHO, 2014b.
[18] Ahmeda, 2004.

Figure 2.6
Distribution of deaths by major categories of causes of death, age and region, 2012
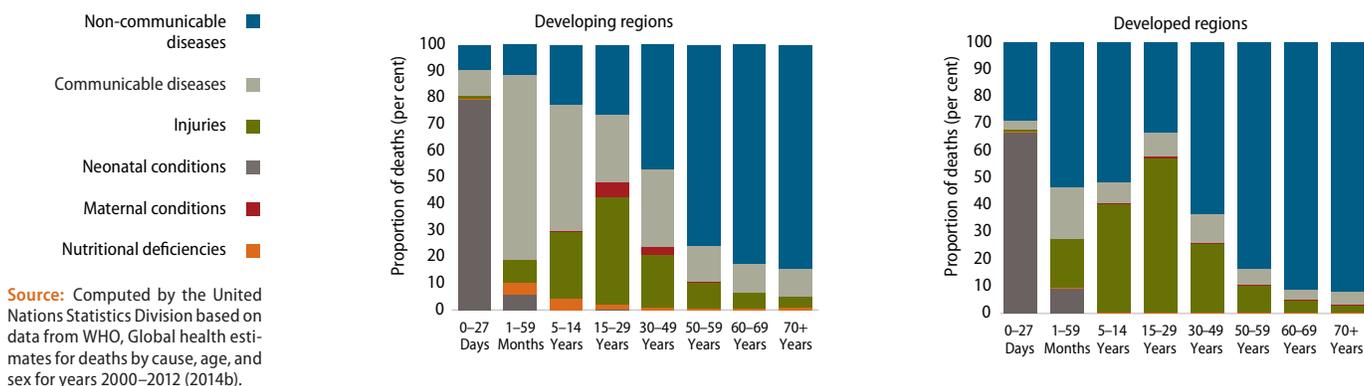
Non-communicable diseases ■
Communicable diseases ■
Injuries ■
Neonatal conditions ■
Maternal conditions ■
Nutritional deficiencies ■

Differences in causes of death over the life cycle between developing and developed regions remain prominent

Changes in causes of death over the life cycle are similar for both women and men. Differences between developing and developed regions, however, are stark (figure 2.6). The first month of life is unique in the sense that most deaths at that age in both regions have roots in prenatal or genetic conditions. In developing regions, most child deaths after the first four weeks are due to communicable diseases (70 per cent). Over the life course, in developing regions, communicable diseases become less and less important as a cause of death; in people aged 70 and over, they account for 10 per cent of all deaths. As these diseases become less important, non-communicable diseases become more prominent. The latter are responsible for 11 per cent of deaths in children between 1 month and 5 years of age in developing regions, but 84 per cent of deaths among persons aged 70 and over. A different pattern emerges when injuries are the cause of death. Injuries are most common as a cause of death among adolescents and young adults.

A somewhat similar picture is found in developed regions, although communicable diseases are much less prominent. Only 19 per cent of deaths between 1 month and 5 years of age are due to infectious diseases. In all older age groups (after age 5), the share of infectious diseases among all causes of death hardly exceeds 10 per cent. Maternal conditions and nutritional deficiencies as causes of death are negligible. Success in reducing communicable diseases through effective prevention and treatment in developed regions has led to other causes of death to account for an increased share in all deaths. In particular, non-

communicable diseases are currently responsible for 63 per cent of deaths in the 30 to 39 age group and for increasingly higher shares in older age groups (up to 92 per cent at age 70 and over).

3.   Health risk factors

A health risk factor is anything that increases the likelihood of an individual developing a disease or injury. Risk factors can be demographic, social, economic, environmental, biological or behavioural in nature. In most cases, they are a combination of all of them.

The set of risk factors contributing most to the burden of disease is changing. At the same time, large differences divide developed and less developed regions. Risk factors such as undernutrition, unimproved water and sanitation facilities, poor hygiene, and indoor smoke from solid fuels remain highly relevant in countries from developing regions. The harmful use of alcohol and tobacco, poor diet and the lack of exercise contribute substantially to the burden of non-communicable diseases in developed regions, but their role is also increasing in developing regions. Across regions, unsafe sex remains the main risk factor for sexually transmitted infections, and HIV in particular, while gender norms, ideals of masculinity and power relations fuel a relatively high level of unintentional injuries and interpersonal violence.

This section addresses some of the most important risk factors for mortality and morbidity for women and men, namely: tobacco use, alcohol consumption, overweight and obesity, and diabetes. All of them are risk factors with huge importance at a time of continuing shift towards non-communicable diseases as the main causes

of death and are particularly relevant from a gender perspective. Additional risk factors such as physical inactivity and unsafe sex are discussed in a later section on the health of adolescents and youth. Environmental factors creating health risks, such as unimproved water and sanitation facilities and household air pollution, are discussed in the chapter on Environment.

Tobacco use

Tobacco use is the second leading risk factor (after high blood pressure) for non-communicable diseases, accounting for 9 per cent of global deaths due to such diseases.[19] It kills nearly 6 million people each year, 1.5 million of whom are women.[20] Tobacco use is responsible for 22 per cent of all cancer deaths and 71 per cent of global lung cancer deaths,[21] and is a major risk factor for chronic respiratory and cardiovascular diseases. In women, smoking is also associated with breast cancer.[22]

Prevalence of tobacco smoking is higher among men than women in all regions, but large shares of women smoke in developed regions and in Oceania

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Women are less likely than men to use tobacco. In 2011, 8 per cent of women 15 years and older worldwide were smokers compared to 36 per cent of men the same age[23] and this gender difference was visible in all regions of the world (figure 2.7). However, in a number of countries, smoking is a habit for a large share of the female population. The regions with the highest female prevalence of tobacco smoking are developed regions and Oceania. Countries with at least 30 per cent prevalence among women include Austria, Bulgaria, Chile, Croatia, Czech Republic, France, Greece and Kiribati.[24] In developed regions in particular, women smoke almost as much as men. For instance, only a 1- to 2-percentage-point difference separate the smoking prevalence between men and women in Australia, Austria, Iceland, New Zealand, Norway, Sweden and the United Kingdom.

Figure 2.7
Smoking prevalence among persons aged 15 or over, by sex and region, 2011
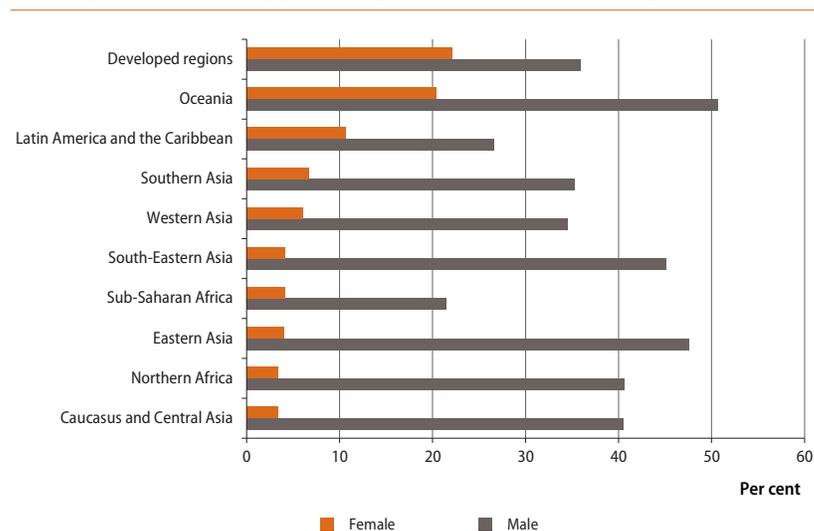
Source: Computed by the United Nations Statistics Division from WHO, WHO Report on the Global Tobacco Epidemic, 2013, Appendix X (2013a).
Note: The figure shows unweighted averages of age-standardized prevalence estimates for smoking among people 15 years and older in 2011. Smoking is defined as the use of any form of tobacco (including cigarettes, cigars and pipes and excluding smokeless tobacco) at the time of the survey, including daily and non-daily smoking. The average for Eastern Asia is based on two countries, China and Mongolia.

Smoking prevalence among men also varies among regions and countries. In Oceania, South-Eastern Asia, and Eastern Asia, 40 per cent or more of the male population over age 15 smoke. With the exception of Oceania, these regions also have the largest gender gap: smoking is widespread among men but uncommon among women. At the country level, the gender gap in smoking is 45 percentage points or more in Armenia, Bangladesh, China, Egypt, Georgia and Indonesia. Lower levels of tobacco use among men as well as women are generally found in countries in the Caribbean and sub-Saharan Africa.

In terms of male smoking, the gap between developed and developing regions has narrowed, due to a decrease in male smokers in developed countries and an increase in developing countries. The gap in tobacco use between women and men is also getting smaller. Nevertheless, the current epidemic of tobacco use involves both women and men as multinational tobacco companies continue to expand their focus on men in developing regions and women everywhere.[25]

While most smokers are men, the majority of victims of second-hand smoke are children and women. For instance, in 2004, second-hand

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19 WHO, 2011a.
20 WHO, 2010a.
21 IARC and others, 2012; Eriksen and others, 2012.
22 Reynolds, 2013; Gaudet and others, 2013.
23 WHO, 2014c.
24 WHO, 2013a.

25 WHO, 2010b.

smoke was estimated to have caused about 600,000 premature deaths. Children represented more than a quarter (28 per cent) of such deaths and women about 64 per cent of adult deaths. Comprehensive smoke-free legislation covering 1.1 billion people in 2012 (16 per cent of the global population), is the most widely adopted measure to address second-hand smoking.[26]

Alcohol consumption

Alcohol consumption is a health risk factor contributing to many different diseases, injuries and other health conditions. The detrimental effects of alcohol are based on three main mechanisms: toxic effects on organs and tissues; intoxication impairing cognitive and emotional functioning; and dependence leading to adverse social and economic effects. The alcohol-related impact on health and social outcomes is determined mainly by the amount consumed and the pattern of drinking (for example, "low-level daily consumption" versus "heavy drinking episodes").[27]

Harmful alcohol use causes approximately 3.3 million deaths each year. In 2012, 6 per cent of all deaths (8 per cent of deaths among males and 4 per cent among females) were attributed to alcohol consumption, including several forms of cancer, chronic liver disease, cardiovascular disease and alcohol-induced injuries.[28] For women, cardiovascular disease is the most common cause of death attributed to alcohol use, while for men, injuries and cardiovascular disease are most common. The differences between women and men are even larger when considering the burden of disease expressed in disability-adjusted life years (DALYs).[29] Estimates for 2012 show that the number of years of life lost due to premature death and disability related to alcohol use disorders (which combine the health effects of the

harmful use of alcohol and dependence) is three times higher for men than for women.[30] Nevertheless, alcohol consumption among women has additional implications. For example, women who drink during pregnancy may increase the risk of preventable health conditions in their newborn.

The sex differential in mortality and morbidity due to alcohol use can be explained by differences in the quantity consumed and in drinking patterns. In addition, factors such as women's lower body weight, smaller capacity of the liver to metabolize alcohol, and a higher proportion of body fat contribute to higher blood alcohol concentrations in women than men for the same amount of alcohol intake.

Men are more likely than women to engage in drinking and heavy episodic drinking

Globally, an estimated 29 per cent of women and 48 per cent of men aged 15 and over are current drinkers[31] (table 2.1). In all regions[32] and across all age groups, the proportion of women who currently drink is lower than that of men. Women consistently drink less on average and engage less often in heavy episodic drinking than men. However, sex differences in the proportion of drinkers, the quantity consumed and the frequency of drinking vary significantly among regions. For instance, in 2010, those differences in consumption and drinking patterns were smaller in Europe, the Americas while relatively large in South-East Asia and Eastern Mediterranean regions (table 2.1).[33] In both South-East Asia and Western Pacific, men engage in heavy episodic drinking almost 11 and 7 times as much as women, respectively. In general, alcohol use among women has been increasing in tandem with economic development and the accompanying change in gender roles.

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26 *Ibid.*

27 Rehm and others, 2010; WHO, 2014d.

28 WHO, 2014d.

29 Disability-adjusted life years (DALYs) measure the burden of disease, injury and death in a population. DALYs are calculated as the sum of years of life lost (YLL) due to premature death and the years lost due to disability (YLD) resulting from disease or injury. One DALY can be thought of as one lost year of healthy life. The sum of DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability. (See: WHO, 2015. www.who.int/healthinfo/global_burden_disease/metrics_daly/en/ (accessed January 2015).

30 WHO, 2014d.

31 This section is based on the WHO's Global Status Report on Alcohol and Health, 2014d, unless otherwise noted. Current drinkers are defined as people who consumed an alcoholic drink in the past 12 months.

32 Throughout the section on alcohol consumption, country groupings are based on WHO regions (see: www.who.int/about/regions/en/).

33 WHO regions.

Table 2.1

Proportion of current drinkers among adults (*15+ years*)**, total alcohol per capita consumption among drinkers, and prevalence of heavy episodic drinking among adult drinkers, by sex and by WHO region, 2010**

WHO region	Proportion of current drinkers among adults (*15+ years*) (per cent)			Total alcohol per capita consumption among drinkers (*15+ years*) (litres)			Prevalence of heavy episodic drinking among adult drinkers (*15+ years*) (per cent)		
	Males	Females	Males/ females	Males	Females	Males/ females	Males	Females	Males/ females
African region	40.2	19.6	2.1	22.4	13.2	1.7	20.3	8.3	2.4
Region of the Americas	70.7	52.8	1.3	18.0	8.0	2.3	29.4	12.3	2.4
Eastern Mediterranean region	7.4	3.3	2.2	14.0	4.8	2.9	2.0	0.5	3.7
European region	73.4	59.9	1.2	22.7	10.1	2.3	31.8	12.6	2.5
South-East Asia region	21.7	5.0	4.3	26.3	8.2	3.2	15.4	1.4	10.9
Western Pacific region	58.9	32.2	1.8	19.0	7.1	2.7	23.1	3.2	7.3
World	47.7	28.9	1.6	21.2	8.9	2.1	21.5	5.7	3.8

Source: WHO, Global Status Report on Alcohol and Health 2014 (2014d).

Note: Based on WHO regions (see: www.who.int/about/regions/en/). Current drinkers are defined as people who consumed an alcoholic drink in the past 12 months; heavy drinkers are defined as people who consumed 60 or more grams of pure alcohol (6+ standard drinks in most countries) on at least one single occasion at least monthly.

Overweight and obesity

Obesity prevalence is higher for women than men

Globally, almost 3 million deaths are related to excess bodyweight, a significant risk factor in mortality and morbidity due to cardiovascular diseases, diabetes and cancer (including breast cancer). Overweight and obesity lead, via metabolic pathways, to increased blood pressure, high cholesterol and triglycerides levels, and insulin resistance, which are themselves direct risk factors for several chronic diseases.[34] According to WHO, a person with a body mass index (known as BMI—a weight-for-height index) of 25 or more is considered overweight, and a person with a BMI of 30 or more is considered obese. WHO estimates that, globally in 2008, approximately 1.5 billion adults aged 20 and over were overweight, around one third of whom (500 million) were obese, with more women (300 million) being obese than men (200 million).[35] The age-standardized overweight prevalence was similar for adult women and men (35 per cent and 34 per cent, respectively), while the age-standardized obesity prevalence was higher among women than men (14 per cent and 10 per cent, respectively).

The 2008 age-standardized prevalence of obesity showed nearly a doubling of 1980 levels, when 5 per cent of men and 8 per cent of women were estimated to be obese. Not only did prevalence rates increase dramatically, but with increasing speed. Half of the increase in obesity prevalence between 1980 and 2008 happened in the first 20 years; the other half occurred in the subsequent eight years.[36] The rise in overweight and obesity prevalence was almost universal, although the pattern varied substantially among regions and countries and between women and men. Only a few countries showed no statistically significant increase in prevalence rates, and not a single country showed a significant decrease in overweight or obesity among the adult population.[37]

At the regional level in 2008, the largest proportion of overweight adults (age 20 and over) was found in Western Asia and Northern Africa: 66 per cent of women in both regions; and 63 per cent and 53 per cent of men, respectively were overweight (figure 2.8). Among the overweight population in both regions, more than half of the women and around 30 to 40 per cent of the men were considered obese. Latin America and the Caribbean, Oceania, the Caucasus and Central Asia and the developed regions also had high prevalence rates for overweight and obesity,

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[34] Finucane and others, 2011; WHO, 2011a; WHO, 2009a.
[35] Finucane and others, 2011.

[36] Stevens and others, 2012.
[37] *Ibid.*

with more than half of the adult female population being overweight and one in four obese. In those regions, the prevalence of overweight was higher among women than men, with the exception of the developed regions, where 50 per cent of women were overweight compared to 59 per cent of men. Both overweight and obesity prevalence were lowest in Southern Asia. There, 16 per cent of women and 13 per cent of men were considered overweight; prevalence rates for obesity were 4 per cent for women and 2 per cent for men.

Obesity has become a serious health problem for women in the Pacific Islands

Country-specific data reveal a wide variation in obesity within regions. In Oceania, for example, regional estimates are dominated by Papua New Guinea, which represents about 75 per cent of the region's population. That country has relatively high overweight and obesity prevalence rates (50 per cent and 45 per cent overweight prevalence for women and men, respectively, and 20 per cent and 12 per cent obesity prevalence, respectively). The region also includes countries with the highest prevalence of obesity in the world: in descending order Tonga, Samoa, Kiribati and Micronesia, with obesity prevalence rates between 53 and 70 per cent for women and 31 and 49 per cent for men.

In Western Asia and Northern Africa, Egypt, Jordan, Kuwait, Libya, Saudi Arabia and the United Arab Emirates, also show very high rates of obesity among women—ranging from 41 to 52 per cent compared to 22 to 37 per cent for men. In Latin America and the Caribbean, the Bahamas, Barbados and Belize have estimates of female obesity above 40 per cent, while male obesity is lower, between 22 and 27 per cent.

Diabetes

Diabetes is a chronic disease that occurs when the body does not produce enough of the blood sugar-regulating hormone insulin, or when the body cannot effectively use the insulin it produces. Around 90 per cent of all diabetes cases globally are type 2 diabetes, largely resulting from an unhealthy diet, being overweight and physical inactivity. Type 2 diabetes is therefore generally preventable. It used to affect mainly middle-aged and older people, but is increasingly found in younger people and even children.

Figure 2.8

Prevalence of overweight (*a body mass index of 25 or above*) **and obesity** (*a body mass index of 30 or above*) **for women and men 20 years and over, by region, 2008**
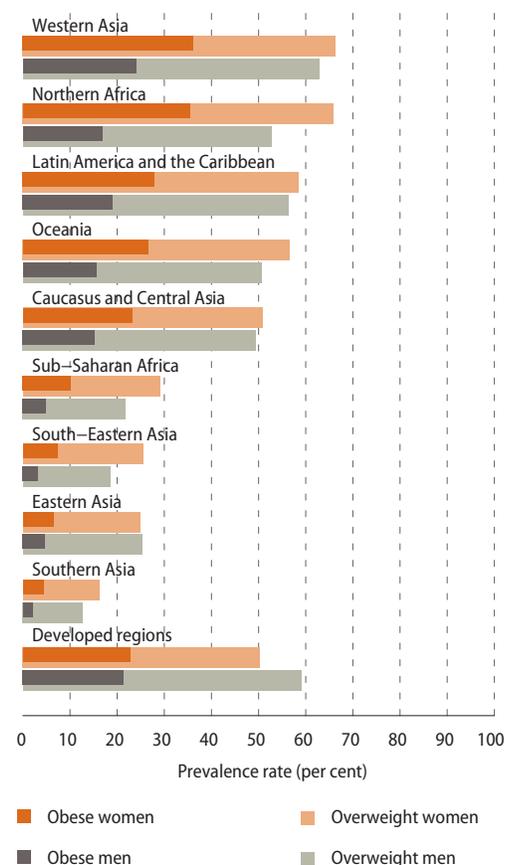
Source: Computed by the United Nations Statistics Division based on data from WHO, Global health observatory, 2013b (data retrieved 23 Sept 2014).

Note: Weighted averages based on age-standardized estimates.

Type 1 diabetes is the result of an autoimmune process that usually starts in children and young adults.

Diabetes can also negatively affect maternal health. Untreated gestational diabetes or other diabetes during pregnancy can lead to a significantly larger baby (known as "macrosomia"), increasing the risk for complications such as obstructed labour that can threaten the life and health of both mother and newborn.[38] Furthermore, babies born to a mother with gestational diabetes have a higher lifetime risk of obesity and of developing diabetes themselves.[39]

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38 NCD Alliance, 2011.

39 IDF, 2013.

Globally, it is estimated that almost half of all diabetes cases go undiagnosed, which has serious health consequences. Undiagnosed diabetes is particularly common in some low-income countries in sub-Saharan Africa, with as many as 90 per cent of cases going undetected. Even in high-income countries, about one third of people with diabetes have not been diagnosed.[40] Over time, untreated diabetes leads to serious damage to the body's systems, especially the nerves and blood vessels.

Globally, between 2000 and 2012, mortality and morbidity due to diabetes have increased, mainly due to lifestyle changes that encourage unhealthy diets and physical inactivity, and the resulting excess body weight. Globally, 44 per cent of the burden of diabetes can be attributed to overweight and obesity, another 27 per cent to physical inactivity.[41]

Worldwide in 2013, 8 per cent of adults (20 to 79 years), or 382 million people, were living with diabetes.[42] Almost half of them (48 per cent) are between 40 and 59 years old. More than 80 per cent of the 184 million people with diabetes in this age group live in low- and middle-income countries.[43]

In general, diabetes prevalence is highest in Western Asia (15 per cent for both women and men) and Northern Africa (figure 2.9). Among countries, the Federated States of Micronesia, Kiribati and Vanuatu stand out for having very high diabetes prevalence rates (women have prevalence rates of 36 per cent, 27 per cent and 25 per cent, and men 35 per cent, 31 per cent and 23 per cent, respectively).

Globally, little difference is found in diabetes prevalence among men and women. In 2013, slightly more men than women were living with diabetes (198 million men and 184 million women).[44] At the regional level, however, some gender differences were observed (figure 2.9). Prevalence rates were higher for women than men in Northern Africa, in particular (13 per cent versus 11 per cent). They were lower in the Caucasus and Central Asia (4 per cent for women

Figure 2.9
Prevalence of diabetes in adults aged 20 to 79 years by sex and region, 2013
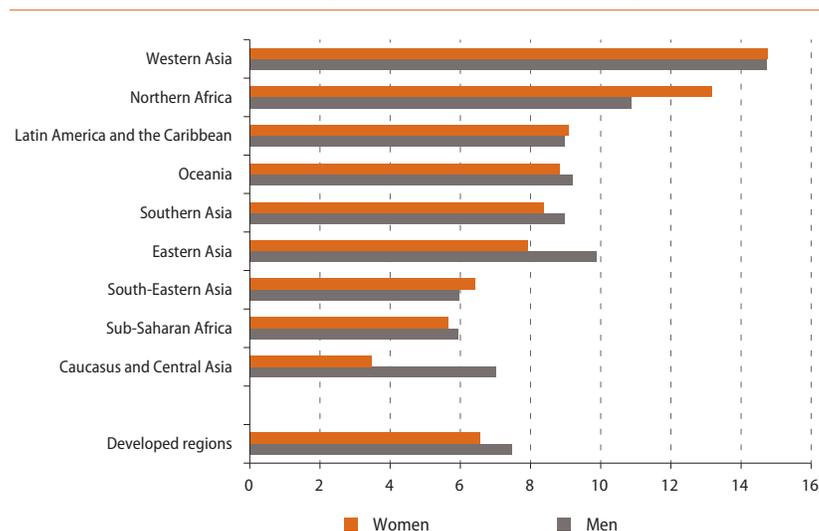
Source: Computed by the United Nations Statistics Division based on data from the International Diabetes Federation (IDF), 2013, and communication with IDF in 2014.

Note: Undiagnosed cases of diabetes are taken into account in estimating the prevalence of diabetes. Weighted averages based on "comparative data" as provided by IDF.

versus 7 per cent for men) and in Eastern Asia (8 per cent for women versus 10 per cent for men).

In terms of mortality, about 1.5 million people died from diabetes in 2012. Overall, diabetes ranked eighth on the list of leading causes of mortality worldwide, compared to the tenth place ranking a dozen years earlier. There is very little difference between men and women in the total number of deaths due to diabetes.[45]

B.   A life-cycle perspective on health

1.   Child health and survival

Nutrition, immunization and a supportive environment in early life are key determinants in the health and survival of children and their physical, cognitive and emotional development. Optimal development of children also encourages healthy habits in adolescence and reduces the burden of disease in adult life. The health and nutrition of girls, in particular, influence maternal health during the reproductive years and affect the survival and well-being of future generations.

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40 *Ibid.*

41 WHO, 2009a; WHO, 2011a.

42 Defined by WHO as having a fasting blood glucose level of at least 7.0 millimoles per liter or being on diabetes medication.

43 IDF, 2013.

44 *Ibid.*

45 WHO, 2014b.

Mortality among children under age 5

Child survival improved in all regions

Tremendous progress has been achieved in reducing child mortality over the past two decades. The mortality rate for children under 5 years old dropped by more than half between 1990 and 2015—from 90 deaths per 1,000 live births to 43 in 2015.[46] The annual rate of reduction increased from 1.2 per cent in 1990–1995 to 4.0 per cent in 2005–2013. Globally, the number of children dying before their fifth birthday decreased from 12.7 million in 1990 to around 6 million in 2015.

Child survival improved in all regions, but wide disparities persist.[47] In 2013, under-5 mortality ranged from 6 deaths per 1,000 live births in developed regions to 92 per 1,000 in sub-Saharan Africa. Dramatic reductions in under-5 mortality have been achieved in Eastern Asia (a 76 per cent reduction), Latin America and the Caribbean and Northern Africa (a 67 per cent reduction in both regions). Sub-Saharan Africa, on the other hand, reduced its under-5 mortality by only 49 per cent. That region registered an increasing share of the global number of children dying before age 5, in part due to population growth. In 2013, half of all children who died before their fifth birthday lived in that region.

The youngest children account for the majority of children under age 5 who have died. Most deaths in children occur in the first year of life (infant mortality), with most of them occurring within the first four weeks (neonatal mortality).[48] Globally, the main causes of neonatal deaths are preterm birth complications (35 per cent), complications during labour and delivery (24 per cent) and sepsis (15 per cent). Together, these three causes account for almost three quarters of all neonatal deaths.[49]

After the first month of life, the set of life-threatening diseases and conditions affecting children change. Worldwide, over two-thirds of all child deaths in 2012 were due to infectious and parasitic diseases (46 per cent) and respiratory infections (23 per cent). Unintentional injuries were the third broad cause of death (9 per cent).[50] The vast majority (99 per cent) of deaths between 1

month and 5 years of age occur in developing countries. Children in the developed regions face a very different set of diseases and health conditions. Comparatively, fewer child deaths in the developed regions are due to respiratory infections and infectious and parasitic diseases (19 per cent compared to 70 per cent in developing regions). Instead, other causes become more prominent: congenital anomalies (28 per cent) and unintentional injuries (16 per cent) are the two leading causes of death, responsible for almost half of all deaths in this age group.[51]

The share of neonatal deaths in under-5 mortality increased from 37 per cent in 1990 to 43 per cent in 2013, since the reduction in neonatal mortality between 1990 and 2013 was slower than the overall reduction of under-5 mortality.[52] This can be explained by the fact that the reduction in under-5 mortality was mostly due to improvements in the prevention or cure of infectious diseases—namely pneumonia, diarrhoea, malaria and measles. These diseases tend to strike children who have outgrown the neonatal stage, subsequently giving neonatal deaths more weight in overall under-5 mortality.[53]

Under-5 mortality is higher for boys than girls in all regions, except Southern Asia

Globally in 2013, under-5 mortality was estimated at 47 deaths per 1,000 live births for boys and 44 for girls, resulting in a sex ratio of 107 male deaths to 100 female deaths. The lower mortality rate for girls reflects the female advantage in survival, which begins in utero and continues after birth. Innate biological differences make boys weaker and more susceptible to disease and premature death. In the absence of gender-based discrimination, girls have lower mortality than boys and this biological advantage persists through life, leading to an overall higher female life expectancy at birth.

In almost all regions, boys under age 5 have a higher mortality than girls (figure 2.10). In sub-Saharan Africa, for example, 86 girls and 98 boys per 1,000 live births died in 2013, which translates into a male-to-female mortality ratio of 114. The only notable exception to the general pattern of higher male mortality in the under-5 age group is Southern Asia. There, the

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46 United Nations, 2015c.
47 UNICEF, 2014a.
48 UNICEF, 2014b.
49 *Ibid.*
50 WHO, 2014b.

51 *Ibid.*
52 Calculated by UNSD based on data from UNICEF, 2014a.
53 UNICEF, 2013a.

Figure 2.10
Under-5 mortality rate (*deaths per 1,000 live births*) **by sex, 1990 and 2013**

Girls — Boys
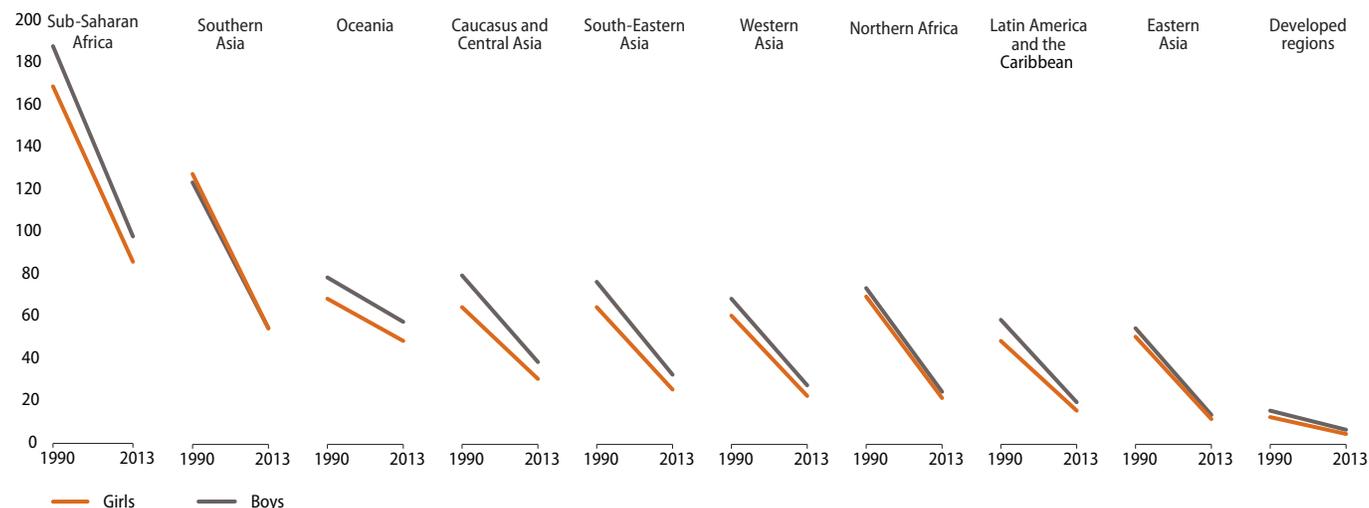
difference reflects the disadvantage of girls, suggesting gender-related discriminatory practices. In 1990, Southern Asia had a sex ratio in under-5 mortality of 97 boys per 100 girls, and an overall under-5 mortality level of 126 deaths per 1,000 live births. In 2013, after the mortality level more than halved to 55 deaths per 1,000 live births, the sex ratio levelled out to 100.

Figure 2.11 shows under-5 mortality rates for girls and boys in 2013 for 195 countries and areas. Two lines are used to illustrate gender parity and potential gender discrimination. The grey dashed line shows parity in mortality between girls and boys—that is, when the mortality rate for girls is equal to that of boys. However, as boys have a greater biological vulnerability to disease and certain health conditions than girls, based on genetic, hormonal and immunological differences,[54] an expected sex ratio in the absence of any gender preferences or discrimination would have a value above 100, indicating higher male than female mortality among children under 5 years of age. An observed sex ratio of 100 or below is therefore assumed to be the result of discrimination against girls.

An expected sex ratio in the absence of gender discrimination is likely to vary with changes in the mortality level, since the degree of male vulnerability shifts with the magnitude and composition of the disease environment.[55] The

gray solid line in figure 2.11 shows the expected female mortality for different levels of observed male mortality under age 5 based on recent research by Alkema and others.[56, 57] For those countries in which the sex ratio falls close to or below the parity line, it can be assumed that discrimination against girls exists. For countries in which the sex ratio falls below the gray line, some kind of discrimination against girls is likely.

The country with the lowest sex ratio in under-5 mortality is India, with a ratio of 93 (93 boys die before age 5 for 100 girls that die by that age). This is also the only country with an under-5 mortality sex ratio under 100 (more girls die than boys). India alone accounted for 21 per cent of all under-5 deaths in 2013. Thus, this low sex ratio in under-5 mortality is pulling down the average for Southern Asia as a whole and, indeed, the entire world (figure 2.11). Higher mortality among girls can be closely related to a general preference for sons in India, which is expressed in special treatment for boys in terms of parental investment in nutrition, vaccinations, access to health treatment and parental care in general.[58]

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[54] Austad, 2006.
[55] Preston, 2007; Drevenstedt, 2008; Sawyer, 2012.

[56] Alkema and others, 2014.
[57] The line is the result of an analysis based on all available country data on child mortality since 1950, regardless of whether those countries were characterized by discriminatory gender practices or not. In that regard, the line helps in identifying outliers from aggregated averages for a given level of under-5 mortality.
[58] See, for example: Pande, 2003; Oster, 2009.

The recent study on global sex ratios for under-5 mortality by Alkema and others[59] identified 10 countries with outlying under-5 mortality sex ratios for 2013, all of which had higher than expected female mortality (Afghanistan, Algeria,

Figure 2.11
Male and female under-5 mortality rates (*deaths per 1,000 live births*) **for 195 countries, 2013**
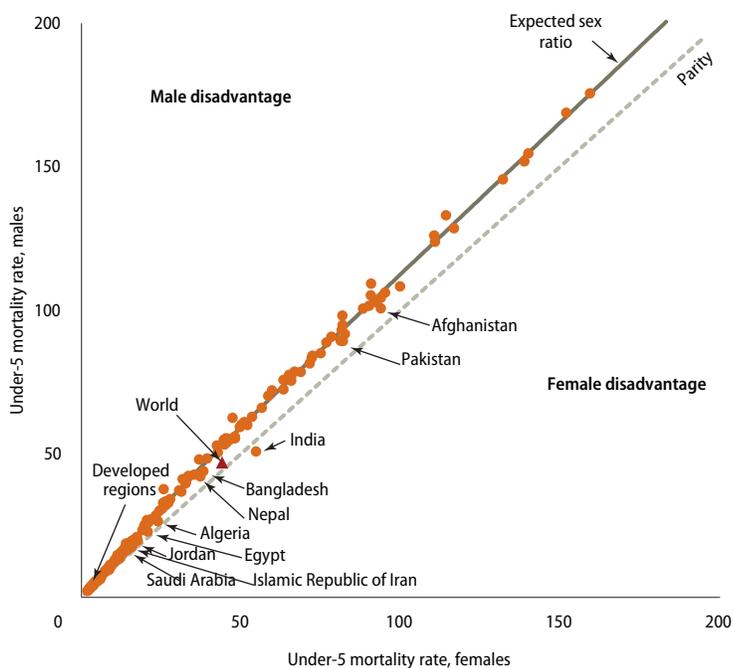
Source: Computed by the United Nations Statistics Division based on data from UNICEF, Levels and Trends in Child Mortality: Report 2014 (2014a) and from Alkema and others (2014).

Bangladesh, Egypt, India, the Islamic Republic of Iran, Jordan, Nepal, Pakistan, Saudi Arabia).

Undernutrition

The nutritional status of children is the consequence of three interacting factors: food intake, health status, and parental and health care.[60] Nutritional deficiencies are the sixth leading cause of death in developing countries, and the immediate cause for 5 per cent of deaths among children (1 to 59 months old).[61] Nutritional deficiencies weaken the immune system and increase the vulnerability of children to disease, particularly infectious diseases such as pneumonia, diarrhoea, malaria and measles. Globally, nearly

half of all deaths among children under 5 are attributable to undernutrition.[62] It is not only an immediate health threat, but also has long-term consequences. It hinders optimal health and growth and is known to lead to suboptimal brain development, which in turn influences cognitive ability and future performance.[63]

Worldwide, 15 per cent of children are underweight.[64, 65] The regions with the highest proportion of underweight children under 5 are South Asia (32 per cent) and sub-Saharan Africa (21 per cent). Boys are more likely to be underweight than girls. In almost half (58) of the 127 countries (across all regions) for which comparable data are available, the male-to-female sex ratio is higher than 115[66] (figure 2.12). Many of those countries are in sub-Saharan Africa. This skewed sex ratio, to the disadvantage of boys, reflects their higher biological vulnerability to disease rather than neglect, or preferential treatment for girls.[67] Exceptions to this pattern, such as the case of Bangladesh or India (figure 2.12), which shows higher underweight prevalence rates for girls, suggest discrimination towards girls.

While the concept of underweight combines aspects of both temporary and chronic undernutrition, stunting results from chronic undernutrition alone, particularly during the most critical periods of growth and development, starting before birth and lasting up to about 2 years of age. Stunted children[68] may appear normally proportioned, but they are too short for their age.

Globally, every fourth child under 5 years of age was stunted in 2013—amounting to about 164 million stunted children worldwide.[69] A high prevalence of chronic child undernutrition was observed in sub-Saharan Africa and South Asia, where 4 out of 10 children were stunted.

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59 Alkema and others, 2014; UNICEF, 2014a.
60 UNICEF, 2013b.
61 WHO, 2014b.

62 UNICEF, 2014b; Black and others, 2013.
63 UNICEF, 2013b; Spears, 2012.
64 A child is considered underweight if her or his weight for age is below minus two standard deviations from the median of the WHO Child Growth Standards.
65 UNICEF, 2014c.
66 A range between 85 and 115 in the sex ratio of underweight prevalence was treated as a window of 'gender parity' for sub-Saharan African countries. UNICEF, 2013b.
67 United Nations, 1998.
68 A child under 5 years old is considered stunted when her or his height-to-age ratio is below minus two standard deviations from the median WHO Child Growth Standards.
69 UNICEF, 2014c.

Together, these two regions account for almost three quarters of all stunted children worldwide. Similar to the situation of underweight, boys are more likely to be stunted than girls. This is evident in 111 out of 128 countries with available data, 21 of which have a male-to-female sex ratio higher than 115.[70] Girls are more likely to be stunted in 14 countries, and in the remaining three the proportions are identical.[71]

Immunization

Immunization is a cost-effective public health strategy for preventing a number of potentially life-threatening childhood diseases such as diphtheria, measles, pertussis, pneumonia, polio, rotavirus diarrhoea, rubella and tetanus. It is estimated that, globally, immunizations prevent around 2 to 3 million deaths each year.[72] Although considerable variations can be found in immunization coverage among boys and girls in some countries, no significant systematic bias has been observed. In some countries, immunization coverage for girls is higher, while in others, it is higher for boys.[73]

2. Adolescents and young adults

Adolescence is a time of general good health, with low mortality rates. Nevertheless, many lifestyle choices made during this period have negative consequences later in life. It is estimated that at least 70 per cent of premature adult deaths result from behaviour that started or was reinforced during adolescence, such as unhealthy eating, alcohol and tobacco use, substance abuse, unsafe sex and lack of physical activity.[74] Adolescence is also the age when young women and men increasingly model their behaviour on adult gender roles. In some societies, adolescent girls are pressured into early marriage and childbearing and their access to information on health and their power to make their own decisions remain low. Adolescent boys often take up harmful habits and risky behaviours that are associated with images of masculinity. All of these factors can

Figure 2.12

Proportion of underweight among boys and girls under 5 years of age, 2000–2012 (*latest available*)
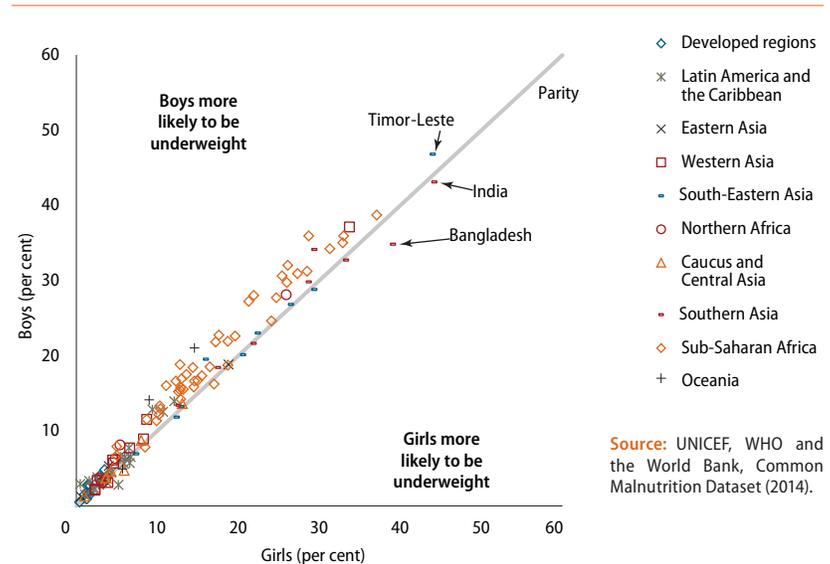
Source: UNICEF, WHO and the World Bank, Common Malnutrition Dataset (2014).

lead to separate health and survival trajectories for girls and boys.

Adolescent pregnancies and deaths due to maternal conditions

Complications during pregnancy and childbirth are the leading cause of death for women aged 15 to 29 in developing regions

The percentage of adolescents (aged 15 to 19) who have given birth has declined in the past two decades but remains high in a number of countries in Africa and in Latin America and the Caribbean (see Chapter 1 on Population and families). Early childbearing, particularly among girls under age 15, comes with health risks to both young mothers and their newborn. This is due in part to the fact that adolescents are not fully developed physically, as well as to the high rates of anaemia and undernutrition common in this age group. Many adolescent pregnancies are also unwanted pregnancies, leading to abortion, most often unsafe abortion, which carries a high risk of morbidity and mortality. In 2008, 15 per cent of all unsafe abortions in developing countries (excluding Eastern Asia) occurred among girls aged 15 to 19.[75]

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70 A range between 85 and 115 in the sex ratio of underweight prevalence was treated as a window of 'gender parity' for sub-Saharan African countries. UNICEF, 2013b.

71 UNICEF, 2013b.

72 WHO, 2014e.

73 Based on a review of immunization coverage (all vaccinations) for 62 countries with data for the period 2003 to 2012. Demographic and Health Surveys (DHS), 2014.

74 Resnick and others, 2012.

75 Shah and Åhman, 2012.

Complications linked to pregnancy and childbirth are the leading cause of death for adolescents and young women (aged 15 to 29) worldwide (table 2.2). However, almost all maternal deaths (99 per cent) occur in developing countries.[76] In developed regions, mortality rates due to maternal conditions are 20 times lower than those of developing regions. In developed regions, other causes of death, such as self-harm and road injuries, top the list for mortality among 15- to 29-year-old women and men, although death rates for men are much higher.

Sexually transmitted infections, including HIV

Unsafe sex is a leading risk factor in the health of adolescents and youth, leading to sexually transmitted infections, including HIV. Among the challenges to preventing such infections are inadequate access to high-quality, youth-friendly sexual and reproductive health services and comprehensive sexuality education.[77]

Women have a higher risk of contracting sexually transmitted infections, including HIV, than men, due to their greater physiological vulnerability. Other factors contributing to higher infection rates among women are: gender inequality, including violence against women and girls; unequal access to information, education and economic opportunities; the practice of early marriage, including to older partners; and a lack of negotiating power.

The number of new HIV infections is higher for young women than young men in sub-Saharan Africa

Although new HIV infections are decreasing globally, they remain concentrated among young people. In 2012, around 40 per cent of all new infections among adults aged 15 years and over occurred among young people aged 15 to 24.[78]

Globally, the number of new HIV infections among women aged 15 to 24 is 50 per cent higher than among their male peers. This susceptibility to HIV infection is most acute in sub-Saharan Africa, home to 72 per cent of all new HIV infections among the young adult population (figure 2.13). In all sub-regions of sub-Saharan Africa, the number of new infections among young women in 2012 was around twice that of young men. In

other regions of the world, more young men are infected than young women—a pattern specific to regions where HIV is predominantly transmitted through sex between men or intravenous drug use. In Latin America, Eastern Asia and developed regions, for example, the number of new infections among young men is twice that of young women.

HIV/AIDS is the second leading cause of mortality among women aged 15 to 29 globally; it ranks fourth among men the same age. This ranking is driven by developing regions and by sub-Saharan Africa in particular. In developing regions, death rates due to AIDS are 17 per 100,000 population for women and 13 per 100,000 for men. In developed regions the corresponding rates were much lower, at 2 and 4 per 100,000, respectively.[79]

Condom use among young people (aged 15 to 24) with multiple sexual partners has increased in developing regions. However, it remains relatively low overall in many countries and is lower among women than men.[80, 81] Comprehensive knowledge of HIV among young people also increased in most developing countries over the past 15 years, but the gains are only slight on average, and the level remains low, particularly among young women.[82] In sub-Saharan Africa, only 30 per cent of young women and 37 per cent of young men have a comprehensive and correct knowledge of HIV and AIDS, representing an increase of less than 10 percentage points since 2000 for both groups.[83]

Injuries

Taking risks and exploring boundaries are part of the biological and psychological development of adolescents.[84] Such behaviour can lead to health risks both in the short term and over the course of their lives. Road injuries are the single largest cause of death among young men aged 15 to 29 globally, followed by interpersonal violence and self-harm (table 2.2). These three causes of death are predominant among young men in both developed and developing regions. They

76 WHO, 2014b.

77 UNAIDS, 2013.

78 *Ibid.*

79 WHO, 2014b.

80 UNAIDS, 2013.

81 Based on available data for sub-Saharan African countries, there was a 19 percentage point gap in condom use between young women and young men in 2014. United Nations, 2015c.

82 United Nations, 2015c.

83 *Ibid.*

84 Blum and others, 2012; Patton and others, 2012; WHO, 2014f; Viner and others, 2012.

Table 2.2

Specific causes of death among young women and men (*aged 15 to 29 years*) **by region, 2012** (*top 10 sex-specific causes of death worldwide*)

Women					Men				
		Cause-specific mortality rates (deaths per 100,000)					Cause-specific mortality rates (deaths per 100,000)		
World rank	Cause of death	World	Developed regions	Developing regions	World rank	Cause of death	World	Developed regions	Developing regions
1	Maternal conditions	17	1	20	1	Road injury	28	19	29
2	HIV/AIDS	15	2	17	2	Interpersonal violence	19	8	21
3	Self-harm	11	5	12	3	Self-harm	16	21	15
4	Road injury	8	6	8	4	HIV/AIDS	11	4	13
5	Diarrhoeal diseases	6	0	7	5	Drowning	6	4	7
6	Lower respiratory infections	5	1	6	6	Lower respiratory infections	6	2	7
7	Interpersonal violence	4	2	4	7	Collective violence and legal intervention	5	1	6
8	Tuberculosis	3	1	3	8	Ischaemic heart disease	5	3	5
9	Fire, heat and hot substances	3	0	3	9	Diarrhoeal diseases	4	0	4
10	Ischaemic heart disease	3	1	3	10	Meningitis	4	0	4

Source: Computed by the United Nations Statistics Division based on data from WHO, Global health estimates for deaths by cause, age, and sex for years 2000–2012 (2014b).

are also predominant among young women in developed regions, with some differences in the ranking. Self-harm is the number one cause of death for young men in developed regions.

Injuries are the leading cause of death among young men in developed and developing regions

Young men are more likely than young women to die from both unintentional and intentional injuries (95 versus 36 deaths per 100,000 population aged 15 to 29, respectively, in 2012). Globally, this accounted for half of the deaths among young men between 15 and 29 years in 2012.[85] Traffic accidents are particularly lethal for young men in Latin America and the Caribbean, sub-Saharan Africa and South-Eastern Asia, where the corresponding death rates are 41, 37 and 34 deaths per 100,000. Latin America and the Caribbean and sub-Saharan Africa also stand out in terms of intentional injuries. Male death rates due to violence between individuals are the highest in these two regions, at 92 and 41 per 100,000, respectively. In Western Asia, male death rates due to collective violence and legal-intervention[86] are the highest, at 92 per 100,000.

Figure 2.13

Number of new infections among young women and men (*aged 15 to 24 years*)**, 2012**
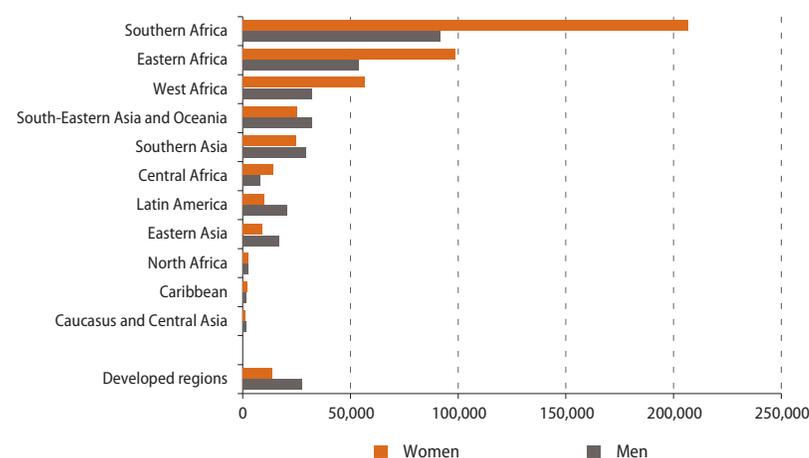
Source: United Nations Statistics Division and UN Women, Millennium Development Goals Gender Chart (2014).

achieve political, economic or social objectives. Various forms of collective violence have been recognized, including: (a) wars, terrorism and other violent political conflicts that occur within or between States; (b) state-perpetrated violence such as genocide, repression, disappearances, torture and other abuses of human rights; (c) organized violent crime such as banditry and gang warfare. Deaths due to legal intervention include deaths due to injuries inflicted by the police or other law-enforcing agents, including military on duty, in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order or other legal action (WHO, 2002).

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85 WHO, 2014b.

86 Deaths due to collective violence refers to deaths occurring in the context of instrumental use of violence by people who identify themselves as members of a group against another group or set of individuals, in order to

Mental health

An estimated one in four or five young people will suffer at least one mental disorder in a given year.[87] Exact numbers are difficult to ascertain due to the lack of available information, particularly in developing countries, and to methodological differences in underlying studies. Many mental health disorders begin in adolescence, but they are often detected only later in life. This can delay the specialized care that could improve an individual's quality of life and even forestall death.

Mental disorders contribute substantially to the mortality of young women and men and the associated disease burden at that age and later in life. Among young persons aged 15 to 29, the number of years lost due to premature mortality and disability (DALYs[88]) associated with unipolar depressive disorders and anxiety disorders are higher for women than for men (15 years versus 9 years per 1,000 population for unipolar disorders, and 7 years versus 4 years per 1,000 for anxiety disorders). The number of DALYs are higher for young men than young women when it comes to alcohol use disorder and drug use (9 years versus 2 years per 1,000 population and 6 years versus 3 years per 1,000, respectively). However, they are similar with regard to schizophrenia and bipolar disorders (1 to 2 years per 1,000 population).[89]

Suicide rates are lower for young women than young men in all regions except Southern Asia and Eastern Asia

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In terms of mortality, self-harm (suicide) is the third leading single cause of death for both young women and young men (table 2.2). In 2012, almost 100,000 young women and over 140,000 young men between the ages of 15 and 29 committed suicide worldwide.[90] In developed regions, self-harm is the leading cause of death for young men and the second leading cause of death for young women. In most regions, suicide rates are much higher for men than for women, particularly in developed regions, the Caucasus and Central Asia, Latin America and the Caribbean and sub-Saharan Africa. Southern and Eastern Asia stand out as the only two regions in the world where suicide rates are slightly higher for young women than for young men. They are particularly high in Southern Asia, with

28 deaths per 100,000 female population (compared to 11 deaths per 100,000 female population worldwide and 12 in developing regions).

Substance abuse and physical inactivity

Many girls and boys take up smoking and drinking during adolescence, increasing the risk of developing non-communicable diseases later in life. As with adults, more adolescent boys currently drink than their female peers in every region. Adolescent boys (aged 15 to 19) engage in heavy drinking about three times more often than girls the same age (17 per cent compared to 6 per cent). The highest rates of heavy drinking among young people of both sexes are found in Europe, the Americas and Western Pacific regions.[91]

Smoking prevalence is as high or even higher for teenage girls than boys in some countries

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Surveys conducted between 2008 and 2012 showed that in 21 countries around the world teenage girls[92] were as likely to smoke, and in some countries more so than boys. Twelve of those 21 countries are in Europe. Among them, tobacco use was higher for girls than for boys by 8 percentage points in Spain, 7 points in Sweden, and 6 in the Czech Republic.[93]

Girls aged 13 to 15 are less likely than boys of the same age to exercise physically in developing countries

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Physical inactivity in childhood and adolescence is detrimental to health in both the short and long term, increasing the risk of developing non-communicable diseases earlier, and premature death.[94] Physical activity fosters healthier adolescent populations not only through the maintenance of healthy body weight, but also through improvements to psychological well-being, social development, educational performance, and reduced use of tobacco, alcohol and drugs.[95] Despite these benefits, many adolescents do not meet the physical activity levels recommended by WHO (figure 2.14). In the vast majority of the developing countries surveyed, girls exercised less than boys, implying a difference in opportunities and/or preferences of adolescents with regard to physical activity.

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87 Patel and others, 2007.
88 For definition of DALYs, refer to section on alcohol consumption.
89 WHO, 2014g.
90 WHO, 2014b.

91 WHO, 2014d, WHO regions.
92 In most countries data refer to those 13 to 15 years old.
93 WHO, 2013c.
94 WHO, 2014h.
95 WHO, 2014i.

Figure 2.14

Physical exercise and prevalence of overweight among adolescents aged 13 to 15 years, developing countries, 2003–2014 (*latest available*)
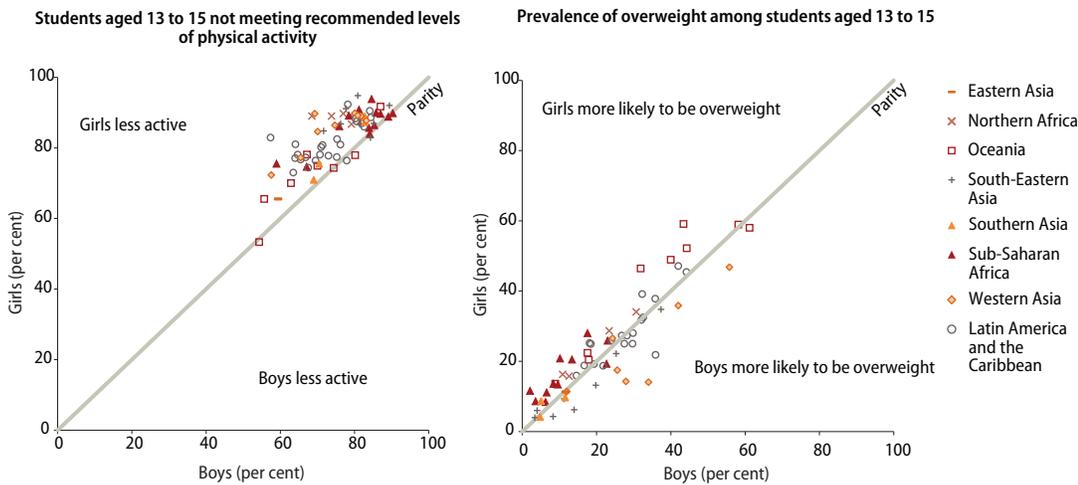
Physical inactivity and poor diet contribute to the increasing prevalence of overweight among children and adolescents.[96] Rates of overweight for female and male adolescents vary by region (figure 2.14). For both sexes, the highest rates of overweight are found in Oceania and the lowest in sub-Saharan Africa, Southern Asia and South-Eastern Asia. However, in terms of gender differences, Oceania and sub-Saharan Africa tend to have higher overweight rates among girls than boys, while overweight rates for boys tend to be higher than those of girls in Western and South-Eastern Asia.

3.   Women's reproductive years

Women's reproductive years are bordered by puberty (and the onset of menstruation) and menopause, roughly covering ages 15 to 49. Globally, women's health status during this period is dominated by issues related to sexual and reproductive health. The leading female causes of death at the global level and in developing regions are HIV/AIDS and maternal conditions. In 2012, in developing regions, the female mortality rates for these two causes of death were 34 and 19 deaths per 100,000 female population aged 15 to 49 years, respectively (table 2.3). In developed regions, maternal conditions were not a leading cause of death (1 per 100,000 death rate), while HIV/AIDS was among the highest ranked causes of death (6 per 100,000), together with breast cancer, ischaemic heart disease and self-harm. Within the same age group, men's causes of death are dominated by HIV/AIDS and road injuries in the developing regions and self-harm and ischaemic heart disease in the developed regions (table 2.3).

This section focuses on the key components of reproductive and maternal health, including access to contraceptive methods, prevention of unsafe abortions, access to prenatal care and skilled health care at delivery. Improvement in these key areas could save many of the almost 300,000 women who die each year from causes related to pregnancy and childbirth. The section concludes with issues related to HIV and AIDS.

Contraceptive use

Family planning is one of the most important aspects of reproductive health, since the use of modern contraceptive methods allows women to avoid unintended pregnancies. An unintended or unwanted pregnancy may be a pregnancy too early in life, too soon after a previous pregnancy, or after having reached the desired family size. Like any pregnancy, unwanted pregnancies carry the risk of disability or even death, but they also have added health risks due to abortion, particularly unsafe abortions. Unlike abortions carried out by skilled personnel in a medically safe environment, unsafe abortions have a very high risk of complications. Approximately half of all induced abortions globally are considered unsafe, according to the WHO definition (see following section).[97]

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[96] WHO, 2011a.

[97] Sedgh and others, 2012.

Table 2.3
Cause-specific mortality rates for women and men *(aged 15 to 49 years)* **by region, 2012** *(top 10 causes of death worldwide)*

	Women				Men			
		Cause-specific mortality rates (deaths per 100,000)					Cause-specific mortality rates (deaths per 100,000)	
World rank	Cause of death	World	Developed regions	Developing regions	World rank	Cause of death	World	Developed regions	Developing regions
1	HIV/AIDS	30	6	34	1	HIV/AIDS	31	13	34
2	Maternal conditions	16	1	19	2	Road injury	29	16	31
3	Self-harm	9	6	10	3	Ischaemic heart disease	19	23	18
4	Stroke	8	4	9	4	Interpersonal violence	17	8	19
5	Road injury	8	5	9	5	Self-harm	17	25	15
6	Ischaemic heart disease	8	6	8	6	Stroke	11	7	11
7	Breast cancer	7	7	7	7	Cirrhosis of the liver	10	11	10
8	Lower respiratory infections	6	2	7	8	Tuberculosis	9	5	10
9	Tuberculosis	6	1	7	9	Lower respiratory infections	8	3	9
10	Diarrhoeal diseases	6	0	7	10	Drowning	6	5	6

Source: Computed by the United Nations Statistics Division based on data from WHO, Global health estimates for deaths by cause, age, and sex for years 2000–2012 (2014b).

A recent study estimated that if all women wanting to avoid pregnancy used a modern contraceptive method, the number of unintended pregnancies would drop by 70 per cent and unsafe abortions by 74 per cent. Additionally, if contraceptive needs were met and all pregnant women received the basic standard of care recommended by WHO, the number of women dying from pregnancy-related causes would drop by two thirds, from 290,000 to 96,000.[98]

Contraceptive use and the proportion of demand for family planning that is satisfied remain low in some regions, particularly in sub-Saharan Africa and Oceania

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As of 2013, 84 per cent of the total demand for family planning (women wanting to delay or avoid pregnancy) among women in developing regions was being met.[99] This statistic reflects only women aged 15 to 49 who were married or in union.

The demand for family planning and the use of contraception (contraceptive prevalence) have increased over the years in almost all regions of the world, but wide disparities persist (figure 2.15). For instance, in sub-Saharan Africa, the proportion of women using any method of contraception doubled from 13 per cent to 27 per cent between 1990 and 2012. However, this still represents only half of the total demand for family planning (51 per cent), leaving the remainder of women desirous of delaying or avoiding pregnancy with an unmet need for family planning. The level of unmet need in sub-Saharan Africa is the highest among all regions. The region has also the highest share of unsafe abortions[100] and highest level of maternal mortality.[101]

Developing countries in Oceania also have low levels of contraceptive prevalence (38 per cent) and a relatively high unmet need for family planning. Around 40 per cent of the women there who would like to delay or avoid pregnancies are not using any method of contraception.

At the other extreme, Eastern Asia has the highest contraceptive prevalence (84 per cent) and nearly all demand for family planning is satisfied. Contraceptive prevalence has also reached very high levels (73 per cent) in Latin America and the Caribbean, where unmet need is comparable to the levels observed in developed regions (around 10 per cent).

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[98] Singh and others, 2014.
[99] United Nations, 2015c, Statistical Annex.

[100] Sedgh and others, 2012.
[101] WHO, UNICEF, UNFPA, World Bank and the United Nations Population Division, 2014.

Induced abortions

While abortion rates have declined since 1995, the share of unsafe abortions among all abortions have increased

Globally, 44 million pregnancies were terminated by induced abortions in 2008. That number declined from 46 million in 1995 to 42 million in 2003, increasing again to 44 million in 2008 due to the growing population of women of reproductive age. The induced abortion rate fell from 35 abortions per 1,000 women aged 15 to 44 years in 1995 to 29 in 2003, declining only slightly afterwards to 28 in 2008 (table 2.4). Induced abortions occur in every region of the world at rates varying from about 20 to 30 abortions per 1,000 women aged 15 to 44 years (table 2.4). The exception is Eastern Europe, which had the highest abortion rate worldwide, at 43 abortions per 1,000 women in 2008.

About half of all abortions globally are considered unsafe,[102] almost all of them occurring in developing regions (table 2.4), especially in Asia, Africa and Latin America and the Caribbean. Unlike abortions performed according to medical guidelines, unsafe abortions carry high health risks for women.[103] In 2008, for example, an estimated 22 million unsafe abortions led to more than 5 million complications, resulting in 47,000 deaths, mostly from heavy bleeding and infection.[104] While the total number of induced abortions has decreased since 1995, the share of unsafe abortions in total abortions worldwide increased from 44 per cent in 1995 to 49 per cent in 2008.

Abortion policies remain restrictive in many countries

In general, abortion policies are more restrictive in developing than in developed regions. In 2013, almost all countries (97 per cent) permitted abortion to save the life of a pregnant woman, with 31 per cent of all countries in developing regions allowing abortions only under this condition, compared to 6 per cent in developed regions. Six countries or areas did not permit abortion under any circumstance: Chile, the Dominican Republic, El Salvador, the Holy See, Malta and Nica-

Figure 2.15

Total demand for family planning, contraceptive prevalence, and unmet need for family planning, 1990, 2000 and 2013 (*percentage of women aged 15 to 49 years, married or in union*)
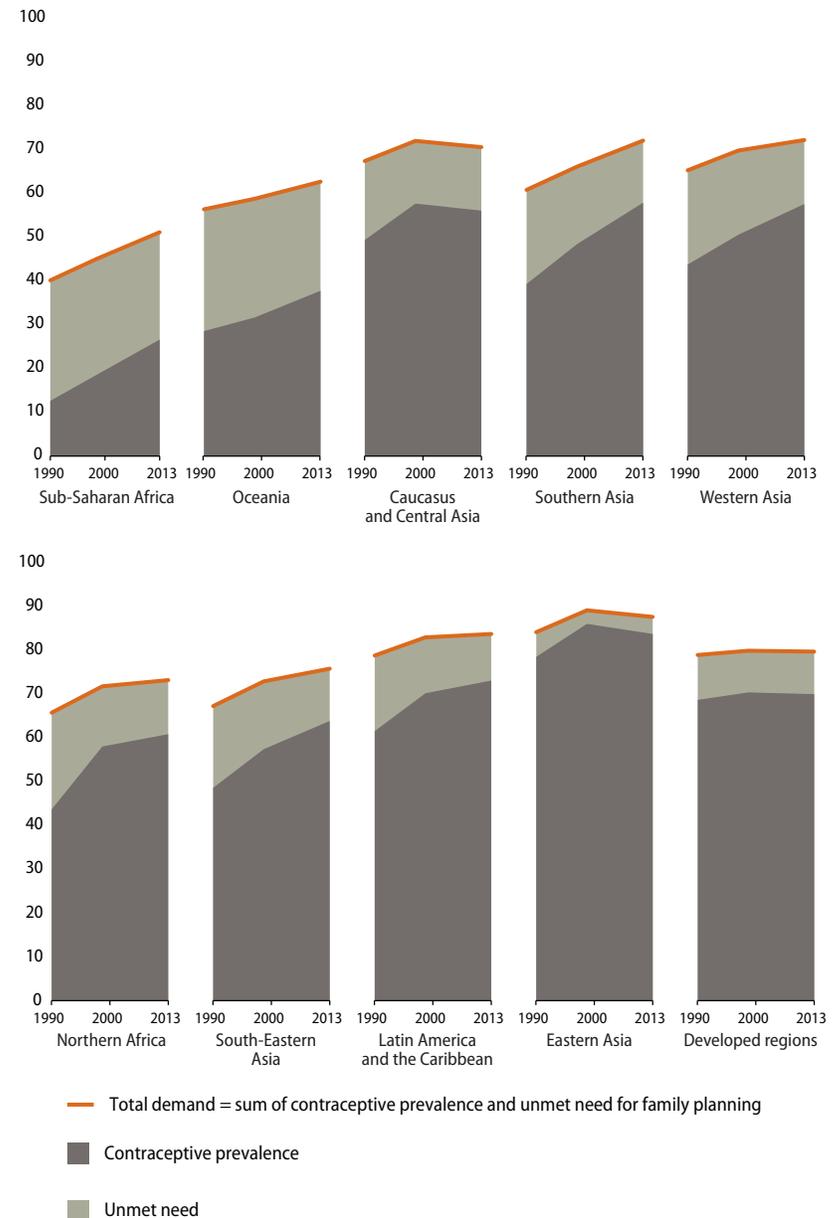
Source: United Nations, The Millennium Development Goals Report 2015 (2015c). Statistical Annex.

ragua. The most liberal allowances for abortion, on request or for economic or social reasons, are found in about 80 per cent of developed countries, but only in about 20 per cent of developing countries.[105] Although 56 countries extended the legal grounds for permissible abortion between

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102 The WHO defines an unsafe abortion as a procedure for terminating an unintended pregnancy carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal standards, or both.

103 WHO, 2011b; Sedgh and others, 2012.

104 WHO, 2014k.

105 United Nations, 2014c.

Table 2.4
Number of abortions and abortion rate by region, 1995, 2003 and 2008

	Number of abortions (*millions*)				Abortion rate (*per 1,000 women aged 15 to 44*)			
	1995	2003	2008		1995	2003	2008	
Region			Total	Unsafe abortions			Total	Unsafe abortions
World	46	42	44	22	35	29	28	14
Developed regions	10	7	6	<1	39	25	24	1
Developing regions	36	35	38	21	34	29	29	16
Africa	5	6	6	6	33	29	29	28
Asia	27	26	27	11	33	29	28	11
Europe	8	4	4	<1	48	28	27	2
of which, Eastern Europe	6	3	3	<1	90	44	43	5
Latin America and the Caribbean	4	4	4	4	37	31	32	31
Northern America	2	2	1	—	22	21	19	—
Oceania	<1	<1	<1	—	21	18	17	2

Source: WHO, Information sheet: safe and unsafe induced abortions (2012a).

Note: Abortion rate is defined as the number of abortions per 1,000 women aged 15 to 44 years. UN Population Division regions. Developed regions include Europe, North America, Japan, Australia and New Zealand; all others are classified as developing. Asia and Oceania exclude Japan, Australia and New Zealand from the regions.

1996 and 2013, many others continue to impose restrictive measures and eight[106] have even tightened their abortion policies.[107]

It is important to note that abortions take place regardless of their legal status. Nearly all of the estimated 22 million unsafe abortions in 2008 occurred in developing countries.[108] Countries with restrictive laws against abortion have more than four times as many unsafe abortions as countries with liberal abortion policies (27 versus 6 unsafe abortions per 1,000 women aged 15 to 44 years, respectively, in 2008). Countries with restrictive abortion laws also had maternal mortality rates that were three times higher than those with liberal abortion policies (223 versus 77 maternal deaths per 100,000 live births in 2013).[109]

Antenatal and delivery care

Access to antenatal care has improved, with almost universal coverage in some regions

Antenatal care visits by trained health workers can result in health problems in pregnant women being detected and treated before they become perilous for both mother and unborn baby. They include the identification and management of obstetric complications such as

preeclampsia, tetanus toxoid immunization, intermittent preventive treatment for malaria during pregnancy (IPTp), and identification and management of infections, including HIV, syphilis and other sexually transmitted infections. Significant improvements in access to antenatal care have been achieved (table 2.5). In 2014, 83 per cent of pregnant women in the developing regions had at least one antenatal care visit, an improvement of 19 percentage points since 1990. Some developing regions have reached almost universal antenatal care coverage. Latin America and the Caribbean, Eastern Asia and South-Eastern Asia all have antenatal care coverage of over 90 per cent. African countries, especially, have advanced. Between 1990 and 2014, coverage increased from 50 to 89 per cent in Northern Africa and from 68 to 80 per cent in sub-Saharan Africa. However, only little more than half of pregnant women in developing regions had the recommended minimum of four antenatal care visits.[110] Furthermore, information on the quality of care is scarce.

Skilled delivery care improved everywhere but remains low in Southern Asia and sub-Saharan Africa

Assistance during delivery by skilled health personnel—a doctor, nurse or midwife—can prevent or manage most obstetric complications and thus reduce the risk of death or disability for both mother and child. Skilled health workers

106 Algeria, Belize, Congo, Dominican Republic, Iraq, Japan, Nicaragua, Papua New Guinea.
107 United Nations, 2014d.
108 WHO, 2012a and United Nations, 2014d.
109 United Nations, 2014d, data refer to 2013.

110 United Nations, 2015c.

can either intervene directly or refer a patient to higher levels of maternal health services, including emergency obstetric care. It is estimated that around 15 per cent of all pregnant women will develop complications during childbirth,[111] often spontaneously without any previous existing conditions. In developing regions, the percentage of births attended by skilled health personnel was 70 per cent in 2014, an increase of 13 percentage points since 1990 (table 2.5). Some developing regions show almost universal coverage for skilled attendance at birth, such as Eastern Asia and the Caucasus and Central Asia, at 100 per cent and 96 per cent, respectively. However, in Southern Asia and sub-Saharan Africa, only every other pregnant woman gives birth with adequate care.

Maternal mortality

Maternal mortality has declined, yet high levels are still found in sub-Saharan Africa

Maternal mortality is a leading cause of death in women of reproductive age. In 2013, an estimated 289,000 women died during pregnancy, or the first 42 days after delivery (or termination of pregnancy) due to causes related to pregnancy or childbirth.[112] Maternal mortality shows extreme variations among regions.[113] In 2013, the maternal mortality ratio was 16 deaths per 100,000 live births in developed regions versus 230 deaths per 100,000 live births in developing regions and peaked in sub-Saharan Africa with 510 deaths per 100,000 live births. Accordingly, the vast majority of maternal deaths occur in developing regions—286,000, of which almost two thirds occurred in sub-Saharan Africa, compared to 2,300 in developed regions. The lifetime risk of maternal death (the probability that a 15-year-old woman will die eventually from a maternal cause) is 1 in 3,700 in developed regions but 1 in 160 in developing regions. Women in countries such as Chad and Somalia face the highest lifetime risk of dying due to maternal conditions, at 1 in 15 and 1 in 18, respectively.

However, much progress has been made since 1990. The number of maternal deaths worldwide declined by 45 per cent between 1990 and 2013.

During that period, the maternal mortality ratio was reduced from 380 to 210 per 100,000 live births at the global level (from 430 to 230 deaths per 100,000 live births in developing regions). Yet, high levels of maternal mortality are still found in sub-Saharan Africa, similar to the levels found in Southern Asia 20 years ago (figure 2.16).

The wide variations in the maternal mortality ratio and lifetime risk suggest that most maternal deaths are preventable. The main conditions causing maternal death, including post-partum haemorrhage, sepsis, obstructed labour, complications of unsafe abortions and hypertensive disorders, can be managed when well-trained staff and adequate equipment are available to provide the necessary care, including emergency obstetric care.[114] However, in developing countries, coverage by skilled birth attendance and of emergency obstetric care remain inadequate, preventing a more drastic decline in maternal mortality rates.[115]

Table 2.5
Women receiving antenatal care and deliveries attended by skilled health personnel by region, 1990 and 2014

	Percentage of pregnant women receiving antenatal care (at least one visit)		Percentage of births attended by skilled health personnel	
	1990	2014	1990	2014
Developing regions	64	83	57	70
Africa				
Northern Africa	50	89	47	90
Sub-Saharan Africa	68	80	43	52
Latin America and the Caribbean	75	97	81	92
Caribbean	84	95	..	..
Latin America	75	97	..	..
Asia				
Eastern Asia	70	95	94	100
Southern Asia	53	72	38	52
South-Eastern Asia	79	96	49	82
Western Asia	53	85	62	86
Caucasus and Central Asia	..	..	97	96
Oceania	..	..	..	..

Source: United Nations, The Millennium Development Goals Report 2015 (2015c).

111 Hoque, 2011.
112 WHO, UNICEF, UNFPA, World Bank and the United Nations Population Division, 2014.
113 See Statistical Annex available at http://unstats.un.org/ unsd/gender/worldswomen.html.
114 WHO, 2014l; UNFPA, 2014.
115 UNFPA, 2014.

Figure 2.16
Maternal mortality ratio by region, 1990 and 2013

Maternal deaths per 100,000 live births

2013 ← 1990
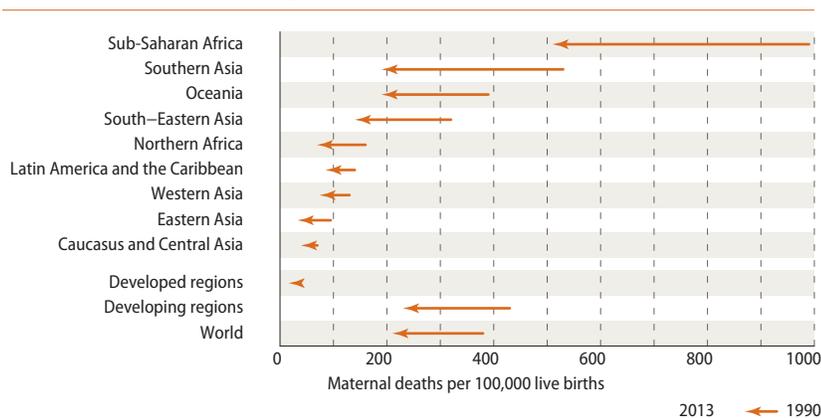
Source: United Nations Millennium Development Goals Report 2015 (United Nations, 2015c), statistical annex.

HIV/AIDS

HIV/AIDS is the single largest cause of death worldwide for both women and men aged 15 to 49 years. In 2012, an estimated 540,000 women and 580,000 men in this age group died from AIDS.[116] The death rates due to HIV/AIDS were 34 per 100,000 population for both women and men in developing regions. In developed regions, rates were higher for men, at 13 deaths per 100,000 population compared to women, at 6 per 100,000 (table 2.3). Recent data from the Joint United Nations Programme on HIV/AIDS (UNAIDS) also suggest that, in high-prevalence countries, HIV contributes significantly to pregnancy-related mortality, pointing to the urgent need to ensure that eligible women living with HIV receive full treatment and that these services are integrated into sexual and reproductive health care.[117]

In sub-Saharan Africa, women represent the majority of people living with HIV

In 2013, an estimated 35 million people globally were living with HIV. Of these individuals, 31.8 million were over the age of 15 and 3.2 million were under age 15.[118] Globally, the numbers of women and men living with HIV are similar, but with large regional differences (figure 2.17). Nearly seventy per cent of those who are HIV-positive live in sub-Saharan Africa, and 59 per cent of that group are women. In the Caribbean, the sex distribution among HIV-positive indi-

116 WHO, 2014b.
117 UNAIDS, 2013.
118 UNAIDS, 2014a.

viduals is balanced, while in all other regions more men than women are HIV-positive. In these regions, the female share of those who are HIV-positive ranges from 22 per cent in Western and Central Europe and North America to 39 per cent in the Middle East and North Africa.

In general, females have a greater physiological susceptibility than males to contracting HIV. Gender inequality and specific gender norms can add to their risk. Violence against women, for example, is fuelling the HIV epidemic. Women who have experienced intimate partner violence are 50 per cent more likely to be living with HIV than those who have not.[119] Moreover, fear of violence undermines the capacity of girls and women to negotiate safer sex and to seek HIV testing, reproductive health services or other health care.[120] Overall, services for women experiencing violence remain inadequate (see Chapter 6 on Violence against women).

Men are also harmed by unequal gender norms and expectations and prevailing concepts of masculinity. Men's sexual risk-taking can increase their chance of contracting HIV. They are also less likely to get tested for HIV in all regions as compared to women, who may be at an advantage since HIV testing is routinely offered in antenatal care settings.[121] Men also tend to enter treatment at later stages of the infection and are more likely to abandon it.[122]

Access to antiretroviral treatment has increased dramatically, yet it is far from universal

The number of adults living with HIV is increasing (figure 2.17), despite a decline in the number of new infections since the late 1990s.[123] The reason lies in the greater availability of therapy and improved medications that are keeping more HIV-positive people alive for longer periods of time. Since 2005, the number of people receiving antiretroviral treatment (ART) has increased sharply in most regions. As at June 2014, 13.6 million people living with HIV were receiving ART globally, among which 12.1 million living in the developing regions. Between 2012 and 2013 alone, the number of people receiving ART

119 UNAIDS, 2013.
120 *Ibid.*
121 *Ibid.*
122 *Ibid.*
123 UNAIDS, 2014a.

rose by 1.9 million in the developing regions, the largest annual increase ever (20 per cent).[124]

Treatment coverage is higher for women than for men in most regions. For instance, in 2012, 73 per cent of eligible[125] women compared to 57 per cent of eligible men received antiretroviral treatment in low- and middle-income countries.[126]

Antiretroviral coverage for the prevention of mother-to-child transmission of HIV has increased, and the number of new infections among children has declined.[127] In 2012, of the estimated 1.5 million pregnant women living with HIV in low- and middle-income countries, 62 per cent received antiretroviral treatment; the proportion in sub-Saharan Africa was 60 per cent, more than double the share only three years earlier.[128] In other regions, antiretroviral coverage for the prevention of mother-to-child transmission of HIV varied, from 90 per cent in Eastern and Central Europe and the Caribbean to less than 20 per cent in Asia and the Pacific, the Middle East and North Africa.[129]

4. Older ages

Non-communicable diseases are the main cause of death and disability among those in their later years

Old age is usually characterized by an increasing and general impairment of physiological functioning, resulting in the growing risk of disease and death. This is the outcome of the life-long individual ageing process and the accumulated effects of exposure to external health risk factors during all life stages. For statistical purposes, and unless otherwise specified, the term "older persons" in this chapter refers to those aged 60 and over.

Many studies, especially in developed countries, show that older women report worse health than men, suffer from more diseases, have more limitations in daily living activities, have more mental health problems, and are physically weaker than men of the same age.[130] Despite their higher morbidity, women in this age group have lower mortality than men. Possible explanations for

Figure 2.17
Estimated number of women and men (*15+ years*) **living with HIV** (*thousands*)**, 1990, 2000, 2013**
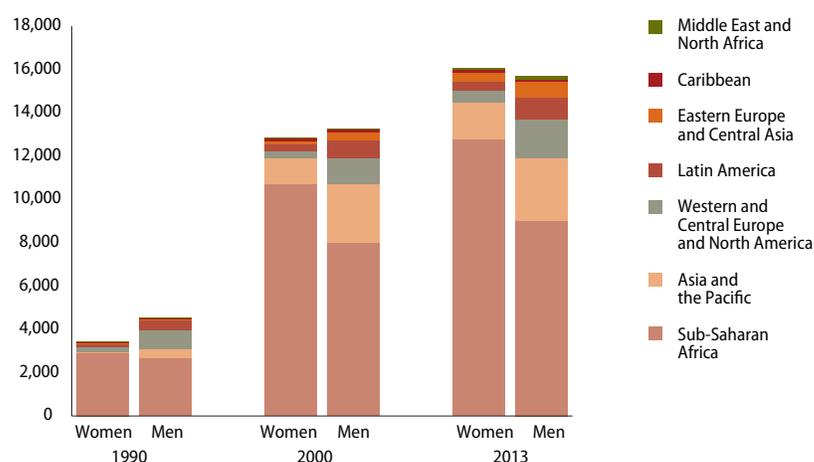
Source: UNAIDS, The Gap Report, (2014a).
Note: Regions as listed in UNAIDS, 2014a.

this paradox are, among other reasons, genetic and immunological differences between men and women, and differences in health reporting and in access and use of health-care services.[131]

Over 85 per cent of all deaths among those aged 60 and over are caused by non-communicable diseases. Stroke and ischaemic heart disease (a disease of the blood vessels supplying the heart muscle) are, by a large margin, the most common causes of death in both older women and men, followed by all cancers combined and chronic obstructive pulmonary disease (table 2.6).[132]

Cardiovascular disease

Cardiovascular disease kills more women than men, but the risk is higher for men than women

Stroke, ischaemic heart disease and other cardiovascular diseases have long been regarded as a male burden. Although men continue to have higher death rates due to cardiovascular disease than women in all regions of the world, in absolute numbers more women than men aged 60 and over die from these diseases globally (7.8 million women compared to 6.8 million men in 2012). This is mainly due to the increasing proportion of women in older age groups (70 and over), in which cardiovascular diseases cause most deaths.[133]

124 United Nations, 2015c.
125 Eligible as defined in the 2010 WHO HIV treatment guidelines.
126 UNAIDS, 2013.
127 Ibid.
128 UNAIDS, 2014b.
129 Ibid.
130 Oksuzyan and others, 2008; Collerton and others, 2009.
131 Oksuzyan and others, 2009; Christensen, 2008.
132 WHO, 2014b.
133 Ibid.

In 2012, death rates due to ischaemic heart disease for persons aged 60 and over were 802 per 100,000 population for men and 700 per 100,000 for women. Death rates were higher in developed regions compared to developing regions and higher for men than women in both regions. A different pattern emerged in death rates due to strokes: they were higher in developing than in developed regions, and women had higher death rates than men in developed regions (table 2.6).

Chronic obstructive pulmonary disease

Men are more likely than women to develop and die from chronic obstructive pulmonary disease

Chronic obstructive pulmonary disease (COPD) is a lung disease in which the airflow from the lung is blocked, making it hard to breathe. The disease is common among older persons and is usually irreversible and progressive. In 2012, death rates due to COPD for persons aged 60 and over were 278 per 100,000 population for women and 414 per 100,000 for men (table 2.6). Smoking—including passive exposure—is responsible for around 80 per cent of cases. Men have higher tobacco use than women and are more likely to develop COPD, but the increase in the number of women smokers could lead to an increase in incidence and prevalence of COPD among them.[134]

Other important risk factors for the disease are household air pollution and occupational exposure to various dusts or chemicals. Household air pollution is mostly caused by the burning of solid fuels, which are typically used in sub-Saharan Africa and Southern and Eastern Asia for heating and cooking.[135] Women in general have higher exposure to this form of air pollution because of closer proximity and longer exposure during cooking and household work (see Chapter 7 on Environment).[136] Exposure to occupational pollution, as in some factories or mines, is more common among men than women.[137]

Cancer

Although the majority of cancers start during middle adulthood, the disease usually takes its toll in terms of mortality in later years. Over 60

per cent of all cancer deaths occur after age 60.[138] Four of the 10 leading causes of death among men in this age group are cancers of different types—trachea, bronchus and lung cancers; stomach cancer; prostate cancer; and liver cancer. For women, two cancer types are included in this list—trachea, bronchus and lung cancers, and breast cancer (table 2.6).

Cancers (also called malignant neoplasms) are a group of diseases characterized by uncontrolled growth and spread of abnormal cells (metastasis). Cancers are a complex group of diseases and can have a variety of external causes usually modified by an individual's genetic make-up. An estimated 30 per cent of all cancer deaths are ultimately caused by five behavioural and dietary risks: high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco use and alcohol consumption. Tobacco use alone is responsible for around 22 per cent of all cancer deaths and for about 71 per cent of global lung cancer deaths.[139]

It is estimated that in 2012 there were over 14 million new cases of cancer, 8.2 million cancer deaths and 32.6 million people of all ages living with the disease.[140] Cancer incidence rates (the number of new cases per 100,000 population) and mortality rates (the number of deaths per 100,000 population) differ among regions and between women and men. For almost all forms of cancer (with the exception of cervical cancer), the age-standardized incidence rates in the developed regions are much higher than in the developing regions, while the age-standardized mortality rates are similar. In the developing regions, cancer detection usually occurs much later due to the lack of individual awareness, adequate primary care and widely available effective treatments.[141]

The global incidence rate for all cancers for men is 24 per cent higher than that for women, and the mortality rate 52 per cent higher (table 2.7). Although most forms of cancer can develop in both women and men, differences do exist: for women, the most common cancers are cancers of the breast, cervix, colon and lung; for men, cancers of the lung, prostate, colon, stomach and liver are predominant.

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134 Varkey, 2004.
135 WHO, 2013b.
136 Smith and others, 2014.
137 Salvi and Barnes, 2012.

138 WHO, 2014b.
139 WHO, 2014m.
140 IARC, 2014.
141 Global Task Force on Expanded Access to Cancer Care and Control in Developing Countries, 2011.

Table 2.6
Cause-specific mortality rates for women and men (*aged 60 or over*) **by region, 2012** (*top 10 causes of death worldwide*)

Women				Men			
	Cause-specific mortality rates (deaths per 100,000)					**Cause-specific mortality rates (deaths per 100,000)**	
World rank	**Cause of death**	**World**	**Developed regions**	**Developing regions**	**World rank**	**Cause of death**	**World**	**Developed regions**	**Developing regions**
1	Stroke	703	491	825	1	Ischaemic heart disease	802	858	776
2	Ischaemic heart disease	700	737	678	2	Stroke	703	416	842
3	Chronic obstructive pulmonary disease	278	104	378	3	Chronic obstructive pulmonary disease	414	180	528
4	Lower respiratory infections	177	103	220	4	Trachea, bronchus, lung cancers	231	292	201
5	Diabetes mellitus	149	70	194	5	Lower respiratory infections	201	136	232
6	Hypertensive heart disease	129	104	144	6	Diabetes mellitus	135	76	163
7	Alzheimer's disease and other dementias	103	226	33	7	Hypertensive heart disease	107	79	121
8	Trachea, bronchus, lung cancers	88	110	76	8	Stomach cancer	95	78	103
9	Breast cancer	65	98	46	9	Prostate cancer	83	125	63
10	Kidney diseases	63	54	69	10	Liver cancer	82	54	96

Source: Computed by the United Nations Statistics Division based on data from WHO, Global health estimates for deaths by cause, age, and sex for years 2000–2012 (2014b).
Note: Mortality rates are not age-adjusted.

Breast cancer and cervical cancer are among the most common forms of cancer among women

Two of the most common cancers among women are related to their reproductive function: breast and cervical cancer.

In 2012, breast cancer accounted for 26 per cent of all new cancer cases (around 1.7 million worldwide) and 16 per cent of all cancer deaths (522,000 worldwide). Developing regions saw slightly more new cases of breast cancer (883,000) than the developed regions (794,000), but the incidence rate was 2.4 times higher in the latter.[142] The higher incidence rate in the developed regions is partly due to higher detection rates. Lifestyle and risk factors also contribute. Low fertility, high alcohol consumption and obesity are important factors that increase the risk for breast cancer.[143]

Cervical cancer is almost always caused by a virus—the human papillomavirus (HPV). HPV is the most common viral infection of the reproductive tract, and most sexually active women and men will be infected at least once during their lives—most likely at a young age. Cervical cancer can easily be treated or even avoided when discovered at an early stage. Furthermore, vac-cinations are available against some virus types that are responsible for around 70 per cent of all cervical cancers. Contrary to most other cancers, cervical cancer has much higher incidence and mortality rates in developing than in developed regions (table 2.7). This is due to the lack of sufficient cancer screening and vaccinations in many developing countries. Cervical cancer is also the second most common cancer in terms of new cases in developing regions.

For men, lung cancer is the most common type of cancer and is a leading cause of death in men over 60

For men, the most common cancers are cancers of the lung, prostate, colon, stomach and liver. Lung cancer is the most common cancer worldwide for men and for both sexes combined, with an estimated 1.8 million new cases in 2012. It has a relatively high fatality rate and is responsible for every fifth cancer death in the world. Age-adjusted incidence rates for men are 2.5 times higher than those for women. The highest incidence rates for men are in Central and Eastern Europe and Eastern Asia, and for women in North America and Northern Europe.[144] These gender and geographic patterns largely reflect historical exposure to tobacco smoke.

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[142] Ferlay and others, 2013.
[143] McPherson and others, 2000.

[144] IARC, 2014.

Table 2.7
Estimated age-adjusted incidence[a] and mortality[b] rates of top five[c] cancers worldwide, women and men, by major regions, 2012

Women	World		Developing regions		Developed regions	
Cancer	Incidence	Mortality	Incidence	Mortality	Incidence	Mortality
Breast	43	13	31	12	74	15
Cervix uteri	14	7	16	8	10	3
Colorectum	14	7	10	6	24	9
Lung	14	11	11	10	20	14
Stomach	8	6	8	7	7	4
All cancers[d]	165	83	136	80	241	86
Men	World		Developing regions		Developed regions	
Cancer	Incidence	Mortality	Incidence	Mortality	Incidence	Mortality
Lung	34	30	30	27	45	37
Prostate	31	8	15	7	70	10
Colorectum	21	10	14	8	36	15
Stomach	17	13	18	14	16	9
Liver	15	14	18	17	9	7
All cancers[d]	205	126	163	120	309	138

a Number of new cases per year per 100,000 population (age-standardized).

b Number of deaths per year per 100,000 population (age-standardized).

c Top five cancers with highest mortality, sorted by incidence rate.

d Excluding non-melanoma skin cancer.

Source: Ferlay and others, 2013. GLOBOCAN 2012 v1.0, Cancer incidence and mortality worldwide: IARC CancerBase No. 11. http://globocan.iarc.fr (accessed November 2014).

Note: UN Population Division regions.

Cancer of the prostate is the second most common cancer among men globally, but with large geographical differences. In developed regions, it is the leading form of cancer in terms of new cases, with 50 per cent more cases in 2012 than lung cancer. The incidence rate in developed regions is almost five times higher than in developing regions—largely a consequence of higher-level diagnostic practices in developed countries.[145] Prostate cancer is mostly a cancer of old age, with the only other known risk factors being African ancestry and having a family history of the disease.

Dementia

Dementia is one of the major causes of disability in later life. It is a syndrome caused by degenerative changes in the brain leading to deterioration in memory, thinking, behaviour and the ability to perform everyday activities. The result is a loss of skills that enable one to live independently. Dementia is caused by a number of different underlying brain pathologies. Alzheimer's is the most common and is responsible for around 70 per cent of all dementia cases. Not much is known about risk factors except age itself, although evidence points to shared risk factors with cardiovascular disease. Smoking, obesity, diabetes, high

cholesterol and hypertension seem to increase the risk of dementia, while physical activity, a healthy diet, social activities and education seem to have a protective effect. Furthermore, genetic factors may increase the risk of dementia.[146]

Women are more likely than men to be affected by dementia

The prevalence of dementia is less than 1 per 1,000 up to age 65,[147] but rises sharply afterwards, doubling with every subsequent five to seven years of age. At age 90 and over, an estimated 3 to 5 people out of 10 live with dementia.[148] Although research shows that the age-related prevalence of dementia has hardly changed over the past 30 to 40 years (at least in high-income countries),[149] the continuous ageing of the world population (see Chapter 1 on Population and families) will lead to a sharp increase in the number of people with dementia. In 2013, an estimated 44 million people globally were living with dementia, a number that is expected to double every 20 years, leading to 76 million cases by 2030, and 135 million by 2050.[150] Due to the changing population

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145 Center and others, 2012.

146 Barnes and others, 2011; Alzheimer's Association, 2014.

147 Vieira and others, 2013.

148 Alzheimer's Disease International, 2009; Prince and others, 2013.

149 Alzheimer's Disease International, 2009.

150 Alzheimer's Disease International, 2013a.

structure, the vast majority (71 per cent) of people with dementia will live in countries currently classified as low- or middle-income.[151]

Dementia has important gender dimensions for two reasons. First, women are at a higher risk of dementia than men and represent the majority of older persons suffering from this condition. The prevalence rate for dementia is estimated to be between 23 and 41 per cent higher for women than for men. Also, the number of years lost globally due to premature death and disability related to Alzheimer's disease and other forms of dementia are higher for women than for men by 14 per cent in the 60 to 69 age group and by 38 per cent in the 70 and over age group. Women are more affected than men by the disease because of their greater longevity and the typically late onset of dementia. Dementia prevalence in the age group 85 and over—of which women represent 65 per cent in 2015[152]—is estimated to range between 25 to 50 per cent.[153]

Not only do more women than men suffer from dementia, they are also the majority of informal caregivers—mostly in their role as partners, daughters and daughters-in-law. Informal care is the rule in most low- and middle-income countries, where professional or institutional care is often not widely available. A recent literature review by Alzheimer's Disease International of 25 studies covering all major regions (and representing countries with 78 per cent of the global population with dementia) revealed that between 55 and 91 per cent of all informal caregivers of people with dementia were women (unweighted average of 76 per cent).[154] A survey in the United States conducted by the Alzheimer Association showed that the share of women among caregivers increased with the duration and amount of caregiving provided. The same study showed that women caregivers were seven times more likely than men to go from working full-time to working half-time and twice as likely to give up paid work entirely.[155] Taking care of a demented person not only has an economic impact, it also has adverse effects on the physical and mental health of caregivers due to the physical and emotional strain of caring for those ill with the disease.[156]

The health of an ageing population

The proportion of older persons in the population is increasing worldwide as a consequence of declining fertility rates and increasing life expectancy (see Chapter 1 on Population and families). This phenomenon, known as "population ageing", takes place in nearly all countries around the world.[157] Globally, the proportion of older people (aged 60 and over) has increased from 9 per cent in 1990 to 12 per cent in 2015, and is expected to increase further to 21 per cent by 2050.[158] As populations age, the prevalence of non-communicable diseases and the proportion of persons with disabilities increase. Forty-six per cent of all persons aged 60 and over have a moderate or severe disability compared to just 15 per cent of persons aged 15 to 49.[159] Several non-communicable diseases contribute the most to the burden of disease in terms of number of years lost due to disability per 1,000 persons (YLD) for both women and men. In addition to Alzheimer and dementia, they include hearing loss, musculoskeletal diseases (in particular, back and neck pain and osteoarthritis), COPD, unipolar depressive disorders, injuries due to falls, diabetes, vision loss and ischaemic heart disease.[160] Among these, the burden of disease due to unipolar depressive disorders, vision loss and osteoarthritis is higher for women than for men; the burden due to back and neck pain, hearing loss and injuries resulting from falls is higher for men than for women. Hyperplasia of the prostate also adds to the years of life lost due to disability in men.[161]

These conditions, which limit functional capacity and can cause chronic pain, are associated with increased dependency and restricted participation. They also create considerable demand for long-term care that often becomes the responsibility of the women in a household. For instance, a 2011 study on caregiving in 16 OECD countries[162] showed that more than 1 in 10 adults aged 50 and over are involved in informal caregiving related to personal care or basic activities of daily living for persons with functional limitations. A larger number of caregivers—1 in 3 adults aged 50 and over—provide help with instrumental activities of daily living

151 *Ibid.*
152 United Nations, 2013a.
153 Duthey, 2013.
154 Alzheimer's Disease International, 2010.
155 Alzheimer's Association, 2014.
156 Alzheimer's Disease International, 2013b; Alzheimer's Association, 2014.

157 United Nations, 2013c.
158 United Nations, 2013a.
159 WHO and World Bank, 2011.
160 WHO, 2014b.
161 *Ibid.*
162 Colombo, 2011.

such as shopping and paperwork. About two thirds of them are women, but the sex distribution changes with age. Among caregivers aged 75 and over, men have similar or higher rates of caregiving than women in two thirds of countries. The study also showed that providing personal care can be demanding and may be incompatible with a full-time job when the time spent on care is more than just a few hours. Caregivers, particularly those providing longer hours of care activities, are less likely to be employed than non-caregivers. When they are employed, they tend to work shorter hours or have a temporary work contract. Furthermore, intensive caregiving can have a negative impact on mental health. In some countries, the detrimental effect is stronger for women than for men.[163]

To improve the quality of life of older persons, more attention needs to be paid not only to managing disabilities but also to preventing them. The functional capacity of the body naturally declines with age, but the rate of decline is largely determined by external factors throughout the life course. The decline can accelerate due to unhealthy habits such as smoking or alcohol use, or slow down by healthy habits such as a wholesome diet and physical activity. Healthy behaviour in all life stages can increase life expectancy and delay the onset of chronic conditions and disability, compressing the time spent in ill health into a shorter period at the end of life.[164]

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[163] *Ibid.*

[164] WHO, 2007; WHO, 2009b; WHO, 2012b.

Chapter 3
Education

Key findings

- Despite progress, only one in two children in developing regions receive pre-primary education compared to nine in 10 in developed regions.
- Primary school enrolment at the appropriate age is nearly universal in most regions, except sub-Saharan Africa and Oceania.
- Yet, an estimated 58 million children of primary school age—31 million of whom are girls—are out of school.
- Only 72 per cent of the world's girls and 74 per cent of boys attend secondary school; gender disparities at the secondary level are wider than those at the primary level. In tertiary education globally, enrolments are increasing faster for women than for men.
- The proportion of women graduating in the fields of science and engineering remains low in poor and rich countries alike.
- Women account for 30 per cent of all researchers.
- Women account for about two thirds of teachers at the primary level, 52 per cent at the secondary level and 42 per cent at the tertiary level.
- Nearly two thirds of the world's 781 million illiterate adults are women, and almost all of them live in developing regions.
- The vast majority of the world's youth are literate: 87 per cent of young women and 92 per cent of young men having basic reading and writing skills.

Introduction

Education is a core human right[1] and an essential tool for achieving sustainable development.[2] It is an investment in human capital that confers benefits to both individuals and societies, allowing them to reach their fullest potential. Education is indispensable for closing the gap between women and men in respect to social and economic opportunities and is a key to empowering women and allowing them to become agents of change in economic, social and political spheres. It also improves women's chances of leading a healthy life and passing on the benefits to future generations.[3]

This chapter presents evidence-based analysis of progress in the education of girls and boys, and women and men, over the period 1990–2012. Overall, the data show remarkable progress in participation in education and literacy levels. Substantial progress has been made in the achievement of universal primary education, and girls and boys around the world participate equally in primary education in most regions of the world. While the overall progress in secondary education is encouraging, it lags behind primary education. In addition, gender disparities are wider and occur in more countries at the secondary than at the primary level. Among positive global trends, the evidence shows that, girls—once they have access to school—tend to do better than boys in terms of progression at the primary and secondary levels and beyond. In tertiary education, a clear trend is emerging that favours women—with enrolments increasing faster for women than for men. However, gender disparities persist in the fields in which men and women choose to study. Women continue to be underrepresented among graduates in the fields of science and engineering in most countries.

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1 United Nations General Assembly, Universal Declaration of Human Rights, 10 December 1948.
2 United Nations, 1994.
3 UNESCO, 2014.

Box 3.1
Gaps in gender statistics on education

The primary source for cross-nationally comparable statistics on education is the UNESCO Institute for Statistics (UIS). The statistics published by the UIS are based on national data reported to the Institute and estimates made by it. National sources of statistics on participation in education and their outcomes are: school administrative records; population and housing censuses; and, household or other sample surveys.

Availability and data quality issues

Country reporting to the international statistical system is an indication of national capacity to produce and disseminate education data. As the information in the table below indicates, there was a high level of reporting of enrolment data to the UIS for the two periods considered. Out of 211 countries or areas from which the UIS

collects statistics, 192 reported gross enrolment ratios for primary education by sex at least once for the period 2005–2012, while 184 did so for secondary education. Relatively fewer countries or areas (168) reported these ratios for tertiary education, partly because some countries do not have a tertiary education system within their borders. Periodicity in the reporting of the data continues to be a problem for some countries. A smaller number of countries or areas were able to report enrolment frequently (here defined as reporting for at least four out of the eight years considered). One hundred and seventy-five countries or areas frequently reported gross enrolment ratios by sex for primary education in the period 2005–2012, 158 for secondary education, and 125 for tertiary education.

Number of countries or areas for which data on gross enrolment ratios by sex and level of education are available, 1997–2004 and 2005–2012

	Primary		Secondary		Tertiary		Tertiary - Field of study
	At least once	At least 4 years	At least once	At least 4 years	At least once	At least 4 years	At least once
2005–2012							
World	192	175	184	158	168	125	113
Developed regions	46	46	47	46	47	44	42
Developing regions	146	129	137	112	121	81	71
1997–2004							
World	193	177	188	151	164	115	..
Developed regions	46	44	46	41	45	40	..
Developing regions	147	133	142	110	119	75	..

The major source of information on official enrolment levels is school administrative records, which often face data quality issues. In some countries, there is less than universal reporting by schools. In many countries, administrative data cover education in formal public and private institutions. Some educational institutions managed by non-governmental organizations and local communities may not be covered by administrative statistics.[a] The reliability of the data reported by government and public schools may be affected by shortcomings, particularly when resource allocation from the government is tied to the size of enrolment.[b] Moreover, population estimates are a key component in the calculation

of enrolment ratios. As a result, inconsistencies with population estimates used can affect the calculation of the enrolment ratios.

Literacy and educational attainment statistics are primarily produced from censuses and household surveys. The reporting of education data from these sources is slightly lower than that from administrative records. The total number of countries or areas that have reported adult and youth literacy data by sex from census or survey sources is 158 for the period 2005–2012 and 102 for educational attainment. Fewer countries or areas (108) reported literacy data on older persons. It is important to note that not all of the countries or areas that collected statistics on

a UNESCO Institute for Statistics, 2004.
b *Ibid*.

literacy and educational attainment in the 2010 census round (spanning the period 2005–2014) have as yet reported them to the international statistical system. There are differences in the reporting of data on literacy and educational attainment among development groups. Most countries in the more developed regions do not regularly report data on literacy because it is considered virtually universal and thus the information is not collected in their censuses and surveys.

Many factors contribute to data quality issues in the measurement of literacy and educational at-

tainment from censuses and household surveys. The completeness of the census enumeration and the sample design for the household survey may affect the accuracy of estimates produced from these sources. Surveys can also systematically miss parts of the population that are difficult to reach. A lack of consistency in survey questions and methodology may affect results. Because censuses and surveys are carried out infrequently, data from these sources may not be comparable across years and sources, especially in countries where the education system has changed over time.

Number of countries or areas for which data on literacy rates and educational attainment by sex are available, 1995–2004 and 2005–2012

	Adult literacy rates		Youth literacy rates		Literacy rates for older persons		Educational attainment
	1995–2004	2005–2012	1995–2004	2005–2012	1995-2004	2005–2012	2005–2012
World	143	158	143	158	116	108	102
Developed regions	20	25	20	25	17	15	37
Developing regions	123	133	123	133	99	93	65

International comparability

Education systems across the world vary widely. Most countries have their own definitions of education levels that do not easily correspond to the International Standard Classification of Education (ISCED) levels. Consequently, the UIS works with countries to map their education systems to the ISCED classification with a view to improving cross-country and -temporal comparisons. Despite UIS' guidance to countries to exclude data on programmes designed for people beyond regular school age, adult education data may still be included for a few countries, which may slightly affect the comparability of their enrolment data with those of other countries.

The definition and measurement of literacy differ across national censuses and household surveys. Some countries use self-reporting to measure literacy skills, while others rely on direct assessment. Yet, some other countries collect literacy data using proxy measurements based on educational attainment, though estimates produced by such methods are not accepted by the UIS. Some developed countries where basic literacy is considered virtually universal use a new concept that relates literacy to skills needed for successful participation in social and economic life. A lack of common definitions and measurements affect the international comparability of education data.

A. Participation in education

1. Pre-primary education

Early childhood education plays an important role in building a strong foundation for lifelong human development. Evidence from around the world indicates that an early start in education can improve children's chances of participating in and completing higher levels of education. Thus, it can potentially reduce social inequality by offsetting social, economic and language-

based disadvantages.[4] Early childhood care and education is a diverse area of learning. It ranges, on the one hand, from formal pre-primary education, which is integrated into the national education system via kindergartens where care, play and education are all included, to more informal and often home-based activities. Pre-primary programmes are typically designed for children aged 3 to 5 years, and include organized learning

4 UNESCO, 2010.

activities that last, on average, an equivalent of at least two hours per day and 100 days per year.

Only one in two children in developing regions are enrolled in pre-primary programmes, compared to nine in 10 in developed regions

Coverage of pre-primary education has steadily expanded over the period 1990–2012 (figure 3.1). Gross enrolment ratios (GER)[5] in pre-primary education have increased consistently in all regions of the world for both boys and girls over the same period. Worldwide, pre-primary enrolment rose from 28 to 54 per cent for boys while it increased from 27 to 54 per cent for girls. Overall, participation in pre-primary education was the highest in developed regions. It was also relatively high in Eastern Asia, Latin America and the Caribbean, and Oceania, where the regional averages were above 70 per cent for both boys and girls. Enrolment was low in Northern Africa, sub-Saharan Africa, Western Asia and the Caucasus and Central Asia. Only one in five children in sub-Saharan Africa and Western Asia was enrolled in pre-primary programmes, compared with one in two for developing regions as a whole and about nine in 10 in developed regions.

Gender disparities in pre-primary education were less marked than at other levels of education

Pre-primary education is less marked by gender disparities than any other level of education. This is partly because private institutions account for a large proportion of total pre-primary enrolment. Children participating in pre-primary education tend to come from more affluent groups, where gender biases in education are generally less pronounced than among the poor. With 54 per cent of girls and boys attending pre-primary

education globally in 2012, the Gender Parity Index (GPI)—the ratio between the female and male pre-primary GERs (see box 3.2)—was within the range of parity at 1.00. Globally, gender parity was maintained between 2000 and 2012. The GPI showed parity in all regions in 2012, except Northern Africa, where 9 girls are enrolled for every 10 boys. A high proportion of countries—112 out of 184 with available data, or 61 per cent—showed gender parity at the pre-primary level.[6] The largest disparities to the disadvantage of girls (GPI below 0.90) were found in: Montserrat, Morocco, Nauru, Niue, Pakistan, Tajikistan, Turks and Caicos Islands and Yemen. On the other hand, the largest disparities to the disadvantage of boys (GPI above 1.10) were observed in Angola, Armenia, Cayman Islands, Georgia, Saint Kitts and Nevis, Samoa, Senegal and Tuvalu.

Box 3.2
Understanding the gender parity index

The Gender Parity Index (GPI) is commonly used to measure progress towards gender parity in education. For a given indicator, the GPI is calculated as the ratio of the value for females to that for males. A GPI value equal to one indicates parity. This signifies that there is no difference in the indicator for females and males. UNESCO has defined a GPI value of between 0.97 and 1.03 (inclusive) as the achievement of gender parity. For indicators where higher values are desirable (e.g. school participation rates), a GPI of less than one means that girls are at a disadvantage and a GPI greater than one means that boys are at a disadvantage. For indicators where lower values are desirable (e.g. repetition rates), a GPI of less than one means that boys are at a disadvantage and a GPI greater than one means that girls are at a disadvantage. In general, the GPI should be interpreted together with the values of the underlying indicator.

One of the difficulties in presenting the GPI is that the scale of disadvantage for females and males is not represented symmetrically around one. For example, a GPI of 0.5 indicates that the female value of the indicator being reviewed is half the male value, whilst a GPI of 1.5 (also 0.5 units away from parity) indicates the male value of the indicator is two-thirds of the female value (not half).

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[5] The gross enrolment ratio in pre-primary education is the total number of children enrolled at pre-primary level expressed as a percentage of population at the official age for pre-primary education. A high gross enrolment ratio generally indicates a high degree of participation, whether the pupils belong to the official age group or not. GER can exceed 100 per cent due to the inclusion of over-aged and under-aged students because of early or late entrants. A GER value approaching or exceeding 100 per cent indicates that a country is, in principle, able to accommodate all of its school-age population. However, this is a meaningful interpretation only if one can expect the under-aged and over-aged enrolment to decline in the future to free places for pupils from the expected age group. The achievement of a GER of 100 per cent is therefore a necessary but not sufficient condition for assessing the attainment of universal access for the official age group.

[6] Data based on UNESCO Institute for Statistics, 2014. Data shown in Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

2. Primary education

Primary education is fundamental to human development and to the progress of all countries. Providing "universal access to basic education and ensuring the completion of primary education" by both girls and boys is one of the actions all governments must take to address one of the "Critical Areas of Concern—Education and Training of Women"—contained in the Beijing Platform for Action adopted in 1995. This section deals with some key topics in primary education, including participation, progression and completion, while offering an assessment on the extent to which education systems provide equitable access to both boys and girls.

Participation in primary education

Participation in primary education is nearly universal

Between 1990 and 2012, primary education was extended to an ever increasing proportion of the world's children. Over that period, substantial progress was made towards universal primary education, with the global adjusted net enrolment rate[7] in primary education rising from 77 to 90 per cent for girls and from 87 to 92 per cent for boys (figure 3.2). The enrolment of girls in primary education has increased faster than that of boys, which helped to close the gender gap at the primary level. This is particularly true in those regions where girls' enrolment rates were historically much lower than that of boys. Outstanding gains in primary enrolment have been registered in developing regions, particularly in Northern and sub-Saharan Africa, Southern Asia and Oceania. This is largely due to increased investment in primary education and measures taken such as the abolishment of school fees. However, many countries in some of these regions are still far from attaining universal primary education. In sub-Saharan Africa, despite an impressive increase of 27 and 22 percentage points for girls and boys, respectively, over the period 1990–2012, only 75 per cent of primary-school-aged girls and 81 per cent of boys of the same age attended school in 2012. In developed

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7 The adjusted net enrolment rate is the percentage of children of official primary school age who are enrolled in either primary or secondary education. The indicator is commonly used to assess the level of achievement of the universal primary education goal and to measure the school participation of the official primary-school-age population.

Figure 3.1
Pre-primary gross enrolment ratios by sex and region, 1990, 2000 and 2012
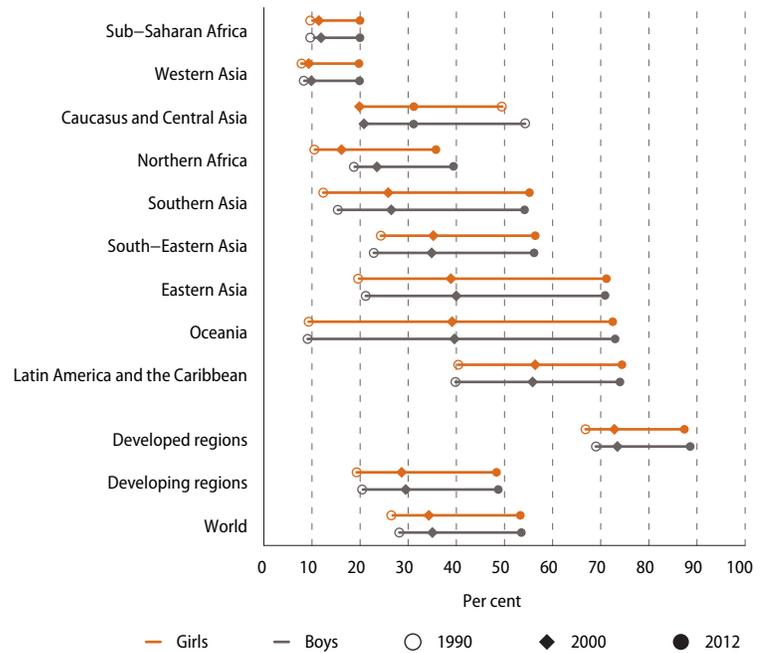
Source: UNESCO Institute for Statistics, 2014.
Note: Regions are listed in ascending order of the pre-primary gross enrolment ratio for girls in 2012.

Figure 3.2
Primary adjusted net enrolment rates by sex and region, 1990, 2000 and 2012
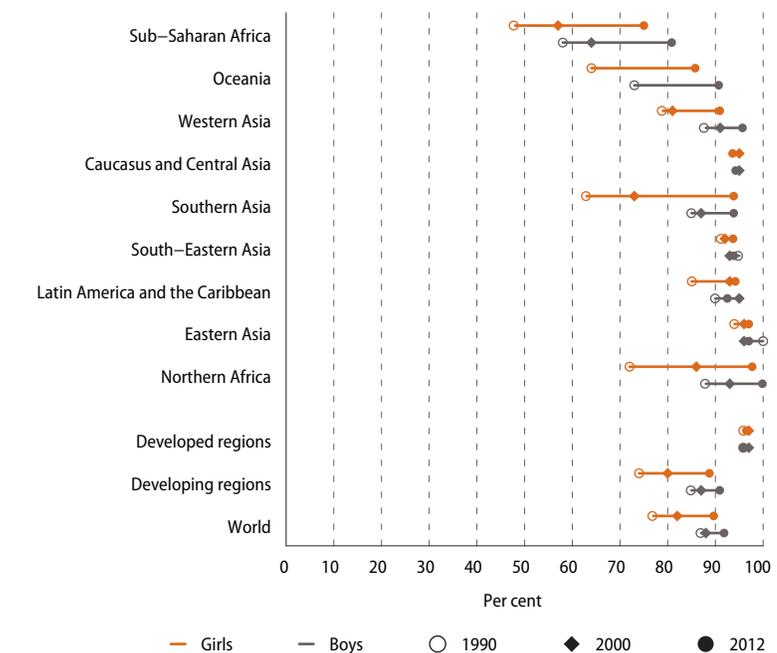
Source: UNESCO Institute for Statistics, 2014.
Note: Regions are listed in ascending order of the primary adjusted net enrolment rate for girls in 2012.

regions, Eastern Asia and Northern Africa, enrolment was nearly universal, with the enrolment rates of girls and boys generally exceeding 95 per cent in 2012. The average rates for both girls and boys exceeded 90 per cent in the Caucasus and Central Asia, Latin America and the Caribbean, South-Eastern Asia, and Southern and Western Asia.

Most countries have reached gender parity in primary education, but in those that have not, disparities to the disadvantage of girls are stark

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The GPI[8] based on GERs[9] in primary education was 0.97 in 2012. This falls within the range of parity (0.97 to 1.03), implying that, at the global level, boys and girls are equally likely to participate in primary education. The GPI for developed regions, Eastern Asia, Latin America and the Caribbean, South-Eastern Asia, Southern Asia and the Caucasus and Central Asia also fell within the range of parity, and Northern Africa was on the cusp. The average GPI value was lower than the range of parity in sub-Saharan Africa (where the GPI was 0.92), Oceania (0.93) and Western Asia (0.93).[10]

The nature and extent of gender disparities in primary enrolment are more apparent at the country level. Worldwide, 192 countries have available data on gross enrolment ratios in primary education for the period 2005–2012. Of these, some 113 countries (about 60 per cent) have reached gender parity, with as many girls as boys enrolled in primary school.[11] Of the 79 countries that reported gender disparities in participation in primary education, four out of five (63 countries) reported disparities to the disadvantage of girls. In terms of geographic distribution, 34 of these countries are in Africa, 14 in Latin America and the Caribbean, 7 in Western Asia and 4 in South-Eastern Asia. Large disparities to the disadvantage of girls (a GPI less than 0.90) were found in 21 of the 63 countries, of which 16 were in sub-Saharan Africa, where

children's access to school was more limited and the disparities affecting girls more severe. In contrast, there were relatively few countries (16 out of the 79 that showed gender disparities) where boys were at a disadvantage. Moreover, the disparities to the disadvantage of girls are typically more extreme (see also figure 3.8). Poverty is a significant contributing factor, although not the only one, which negatively affects their access to and participation in education. Other factors include ethnicity, disability and residence in rural, remote or scattered communities, slums and in conflict affected areas.[12]

Out-of-school children of primary school age

Most out-of-school children of primary school age live in sub-Saharan Africa and Southern Asia

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Great strides have been made towards achieving universal education for all. The global number of out-of-school children[13] of primary school age[14] declined for two decades, falling from about 104 million in 1990 to about 58 million in 2012—31 million girls and 27 million boys (figure 3.3). Most of these children live in developing regions. Sub-Saharan Africa accounted for more than half (57 per cent) of them and had the highest out-of-school rate of all regions. Almost one in four girls of primary school age and one in five boys in the region had either never attended school or left school without completing primary education. Some 10 million children were out of school in Southern Asia, representing nearly 17 per cent of the global total. Other regions had significantly fewer children out of school: South-Eastern Asia (4 million), Latin America and the Caribbean (3.8 million), Eastern Asia (2.7 million), and Western Asia (1.5 million).

Girls comprise the majority of the out-of-school population

Despite progress towards gender parity in school enrolment, girls comprise the majority of the world's out-of-school children. In 2012, the share

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8 See box 3.3.

9 The gross enrolment ratio in primary education is the total number of children enrolled in primary education, expressed as a percentage of the official school-age population in a given year. The GPI of the GER in primary education is expressed as the ratio of the GER for girls to that for boys.

10 Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

11 *Ibid.*

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12 UNESCO, 2007.

13 These are primary-school-age children not attending either primary or secondary education, having either not started school or dropped out before completion. They may also be in some type of non-formal education that is not recognized as fully equivalent to formal primary education.

14 Typically between 6 and 11 years of age.

of girls in the out-of-school population amounted to 53 per cent, down from 62 per cent in 1990. Gender disadvantage was most pronounced in Northern Africa and Western Asia, where girls accounted for over two thirds of children out of school. In sub-Saharan Africa, girls accounted for 56 per cent of such children, while in Oceania the figure was 60 per cent. Over the period 1990–2012, the proportion of girls in the total number of out-of-school children fell to less than one half in Eastern Asia, Latin America and the Caribbean, South-Eastern Asia and Southern Asia.

Poverty and other barriers further reinforce gender disparities in learning opportunities

The reasons why children do not attend school vary, but they are often associated with poverty, ethnicity, social exclusion, living in a rural area or slum, geographic remoteness, disasters, armed conflict, lack of basic facilities and poor-quality education. These barriers often interact with gender to create even greater disadvantages in learning opportunities. Countries face different challenges and need different policies depending on their circumstances. Among interventions that have successfully been used to reach the disadvantaged and the marginalized, especially girls include: the abolishment of school fees; increased education budgets; social cash transfers, especially to support poor families, making it easier for them to send their children to school; increasing attention to ethnic and linguistic minorities; overcoming conflicts that keep children out of school because of hostilities; and improving the quality of education.[15]

School progression at the primary level

In order to achieve universal completion of primary education, it is important that all boys and girls of primary school age attend school and progress through primary education. High levels of repetition and drop out hinder a considerable number of children from transitioning to secondary education. Difficulty in progressing through the primary grades (repeating) or leaving school before completing the last grade of primary education (dropping out) occur for a variety of reasons, mostly related to the educational system and social and economic factors. Gender plays a significant role in school progression and completion in most countries.

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[15] UNESCO, 2014a.

a. Repetition

Repetition at the primary level remains relatively high in Latin America and the Caribbean, sub-Saharan Africa, Southern Asia and Western Asia

A considerable number of children experience difficulty in progressing from one grade to the next at the primary level. The percentage of repeaters at the primary level was the lowest for both boys and girls in developed regions, Eastern Asia, and the Caucasus and Central Asia.[16]

Box 3.3
Gender parity and equality in education—what's the difference?

Gender parity and gender equality in education mean different things. Gender parity is a purely numerical concept. Reaching gender parity in education implies that the same proportion of boys and girls would enter the education system and participate in its various cycles.

Gender equality, on the other hand, means that boys and girls would experience the same advantages or disadvantages in educational access, treatment and outcomes. In so far as it goes beyond questions of numerical balance, equality is more difficult to define and measure than parity.

The achievement of full gender equality in education would imply:

- Equality of opportunities, in the sense that girls and boys are offered the same chances to access school, i.e. parents, teachers and society at large have no gender-biased attitudes in this respect;
- Equality in the learning process, i.e. girls and boys receive the same treatment and attention, follow the same curricula, enjoy teaching methods and teaching tools free of stereotypes and gender bias, are offered academic orientation and counselling not affected by gender biases, and profit from the same quantity and quality of appropriate educational infrastructures;
- Equality of outcomes, i.e. learning achievements, length of school careers, academic qualifications and diplomas would not differ by gender;
- Equality of external results, i.e. job opportunities, the time needed to find a job after leaving full-time education, the earnings of men and women with similar qualifications and experience, etc., would all be equal.

The last condition, while not strictly part of a notion of educational equality, is nevertheless affected by it: the persistence of gender discrimination in the labour market prevents the attainment of equality of access, treatment and outcomes in education by affecting the relative costs and perceived benefits of educating girls and boys. Accordingly, if full gender equality in education were to be achieved, ending labour market discrimination in all its gendered forms would probably be required.

Source: UNESCO, 2003.

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[16] Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

Figure 3.3
Number of out-of-school children of primary school age by region and sex, 1990–2012
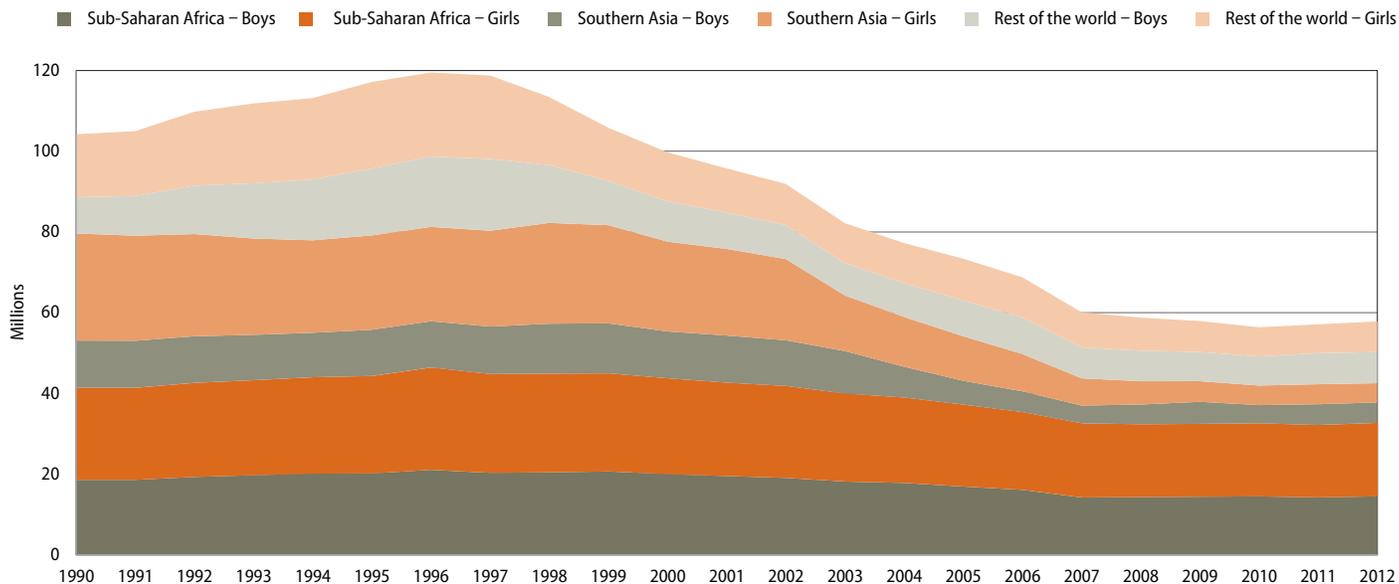
Source: UNESCO Institute for Statistics, 2014.

Among the 46 developed countries or areas with data for the period 2005–2012, the percentage of repeaters was below 1 per cent for both boys and girls, except in Israel, Latvia, Poland, Romania and Switzerland, where the value ranged between 1 and 2 per cent for girls and/or boys, and in Andorra, Austria, Belgium, Hungary, Slovakia and Spain, where the values ranged between 2 and 4 per cent (figure 3.4). In the Caucasus and Central Asia, once enrolled in school, boys and girls rarely repeated primary grades. The case was similar in all countries of Eastern Asia, except for the Macao Special Administrative Region of China, where the repetition for boys was 6 per cent and 3 per cent for girls. Repetition in South-Eastern Asia is also relatively low, although some of the countries in the region (Cambodia, Lao People's Democratic Republic, Thailand and Timor-Leste) have recorded repetition in the range of 5 to 20 per cent. In several countries in the regions mentioned above, repetition is relatively low, in part due to the practice of automatic promotion.

Repetition at the primary level is fairly high in Latin America and the Caribbean, Northern and sub-Saharan Africa, and Southern and Western Asia.[17] The phenomenon of repetition has been the most persistent and its incidence the highest in sub-Saharan Africa, where the percentage of primary repeaters ranges between zero and 33 per cent in 46 countries with data. In 23 of these countries the percentage of repeaters, for both boys and girls, surpasses 10 per cent (figure 3.4). Repeaters account for about a fifth of enrolment in Burundi, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Madagascar, Malawi and Togo. Repetition for boys and girls is 5 per cent or higher in the Western Asia countries of Iraq, Lebanon, the Syrian Arab Republic and Yemen and in the Southern Asia countries of Bangladesh, Bhutan, India and Nepal. Out of 38 countries with data in Latin America and the Caribbean, 30 have repetition of less than 5 per cent for girls, whereas only 18 countries show such low values for boys. In most cases, repetition tends to be concentrated in the early grades and, though not exclusively, among children from poor families, those living in rural areas and among disadvantaged social groups.[18] Countries that experience difficulty enrolling children in school at the official entrance age often encounter further problems in keeping them in school until they graduate from primary education.

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17 *Ibid.*

18 UNESCO Institute for Statistics, 2012.

Girls tend to progress through primary school in a more timely manner than boys

Once they have enrolled in school, girls tend to progress in a more timely manner than boys through primary education. In 126 countries out of 190 with data for the period 2005–2012, girls repeated at a lower percentage than boys.[19] The GPI was in the range of parity in 51 countries (the difference was less than 1 percentage point for boys and girls). Girls repeated at a higher percentage than boys in only 13 countries.

b. Survival to the last grade of primary school

Enrolling boys and girls in school is an indispensable first step towards universal primary education, but the success in achieving that goal depends on whether they stay in school long enough to benefit from a full course of primary education. A large number of children leave school before completing primary education due to social and economic factors, including poverty, the hidden costs of schooling, civil conflict, disasters, disease, displacement, migration, language barriers and the low quality of primary education.[20]

The survival rate up to the last grade of primary school—defined as the proportion of students starting first grade who are expected to reach the last grade regardless of repetition—is used to measure the ability and efficiency of an education system to retain students. It can also indicate the magnitude of the incidence of drop out. Survival rates approaching 100 per cent indicate a high level of retention or a low incidence of drop out.

Survival rates to the last grade of primary school show considerable variation across regions and countries

Globally in 2011, survival rates up to the last grade of primary school reached 74 per cent and 76 per cent for boys and girls, respectively (figure 3.5). Those rates were generally high, ranging from 93 to 98 per cent, in developed regions, Eastern Asia, Northern Africa, and the Caucasus and Central Asia. Survival rates of between 75 per cent and 83 per cent for boys and 78 per cent to 88 per cent for girls were recorded in Latin America and the Caribbean, South-Eastern Asia

19 Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

20 UNESCO and UNICEF, 2012.

Figure 3.4
Percentage of primary repeaters by sex and region, 2005–2012 (*latest available*)
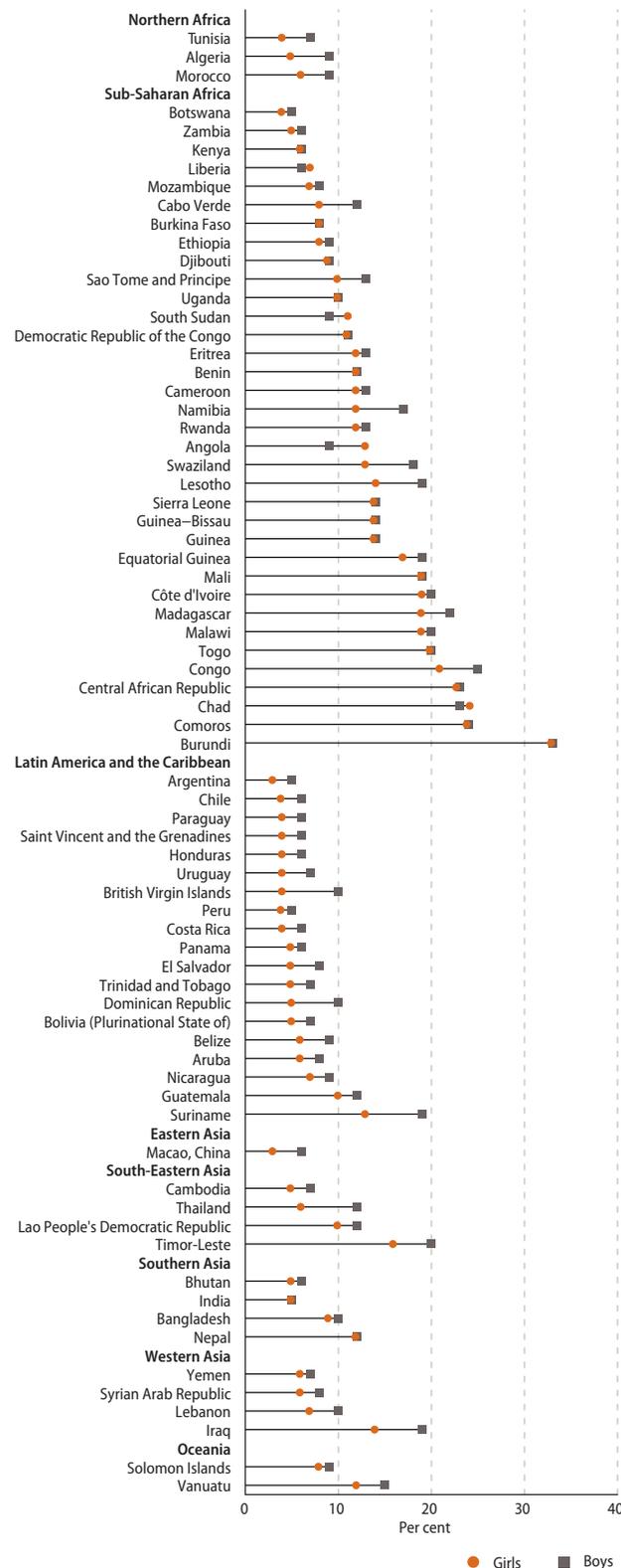
Source: UNESCO Institute for Statistics, 2014.
Note: Data are presented for countries where at least 5 per cent of boys or girls repeated.

and Western Asia. In contrast, between half and two thirds of pupils completed primary education in sub-Saharan Africa, Southern Asia and Oceania. Among countries with data for the period 2005–2011, the survival rates ranged from 25 per cent to 100 per cent. The survival rate for girls was less than 50 per cent in 10 countries, while it exceeded 90 per cent in 78 countries.[21]

Progress has been slow in improving survival rates at the primary school level

Between 1990 and 2011, the global survival rate at the primary school level improved by 7 percentage points for girls and 4 for boys. All regions of the world, except Oceania, improved their survival rate, but progress has been slow towards reaching the goal of universal completion (figure 3.5). Marked progress in the survival rate up to the last grade of primary education was witnessed in Eastern Asia, Latin America and the Caribbean, Northern Africa, and South-Eastern Asia, where rates improved by 14 to 22 percentage points for girls and by 12 to 15 percentage points for boys. Modest improvements in survival rates were registered in sub-Saharan Africa, Southern Asia and Western Asia. In Southern Asia, the gain for boys (4 percentage points) was much smaller than that for girls (14 percentage points). Oceania is the only region that made no progress at all and even fell back in this indicator.

c. Transition from primary to secondary education

A successful outcome of primary education is an increase in enrolment at the secondary level. The transition rate from primary to secondary education is based on the number of new entrants to the first grade of secondary education (general programmes only) in a given year, expressed as a percentage of the number of students enrolled in the final grade of primary education in the previous year who do not repeat the last grade of primary in the following year.

Globally, most students who reach the end of primary education continue their studies

Worldwide, more than 91 per cent of primary school students transitioned to lower secondary school in 2012[22] (figure 3.6). High rates of transition from primary to lower secondary education are observed in most countries, indicating that the end of primary education is not the most common exit point from the education system. In developed regions, all countries, except Bosnia and Herzegovina (with transition rates of 83 per cent for girls and 85 per cent for boys), reported transition rates above 95 per cent for both girls and boys. Transition rates were above 95 per cent also in Eastern Asia, Latin America and the Caribbean, and the Caucasus and Central Asia, and between 85 and 95 per cent in Northern Africa, South-Eastern Asia, Southern Asia and Western Asia. Some of the lowest transition rates were found in sub-Saharan Africa, where only 77 per cent of girls and 79 per cent of boys moved on to secondary education. Slightly over a third of the countries in the region recorded rates over 90 per cent, while about another third of countries registered rates below 75 per cent. In three countries in this latter group (Angola, Guinea and the United Republic of Tanzania), the rate was less than 50 per cent for girls and/or boys.

The transition to secondary education has improved for developing regions as a whole during the past decade

The transition to general secondary education improved for developing regions as a whole from 1990 to 2011, by 13 percentage points for girls and 9 points for boys. Progress in the transition rate from primary to secondary school was substantial in Eastern Asia, South-Eastern Asia, Southern Asia and Western Asia, especially for girls. The Caucasus and Central Asia and Latin America and the Caribbean have moved to near universal transition (98 per cent or higher) from the primary to secondary level. Progress in Northern Africa was relatively modest.

Currently, the GPI of transition rates to secondary education shows parity across all regions of the world and in most countries. In 106 out of the

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21 Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

22 The indicator is referenced to the earlier year as it is a percentage of the previous year's cohort but the transition actually takes place in the later year.

154 countries with data for the period 2005–2011, girls and boys who reached the end of primary education continued their studies at the lower secondary level at more or less the same rate.[23]

3.   Secondary education

While successful completion of primary education provides the foundation for a lifetime of learning, secondary education is the key to acquiring more complex skills and knowledge, which in turn offer individuals more opportunities in life, including preparation for tertiary education and better jobs.

Participation in secondary education

Secondary enrolment ratios for both boys and girls have increased since 1990 but remain lower than the corresponding ratios at the primary level

Participation in secondary education[24] has expanded steadily in all regions of the world (figure 3.7). Globally, the secondary GER improved by 26 percentage points for girls and 20 percentage points for boys over the period 1990–2012. Despite this remarkable improvement, only 72 per cent of the world's girls and 74 per cent of boys attended secondary school in 2012. The global enrolment ratios in secondary education for both boys and girls were lower than the corresponding ratios in primary education.[25] In addition, when compared to those at the primary level, secondary enrolment ratios show significant variation among regions. It was close to 100 per cent for both boys and girls in developed regions and the Caucasus and Central Asia, and was close to 90 per cent in Eastern Asia, Latin America and the Caribbean, and Northern Africa. Despite the steady expansion of post-primary education, secondary enrolment was low in many developing countries. In sub-Saharan Africa, the secondary enrolment ratio was 45 per cent for boys and 38 per cent for girls. Similarly, in Oceania, it was 52 per cent for boys and 45 per cent for girls. Secondary GERs were close to or

lower than 75 per cent for both boys and girls in the other regions, namely South-Eastern, Southern and Western Asia.

Figure 3.5
Survival rates to last grade of primary school by sex and region, 1990 and 2011
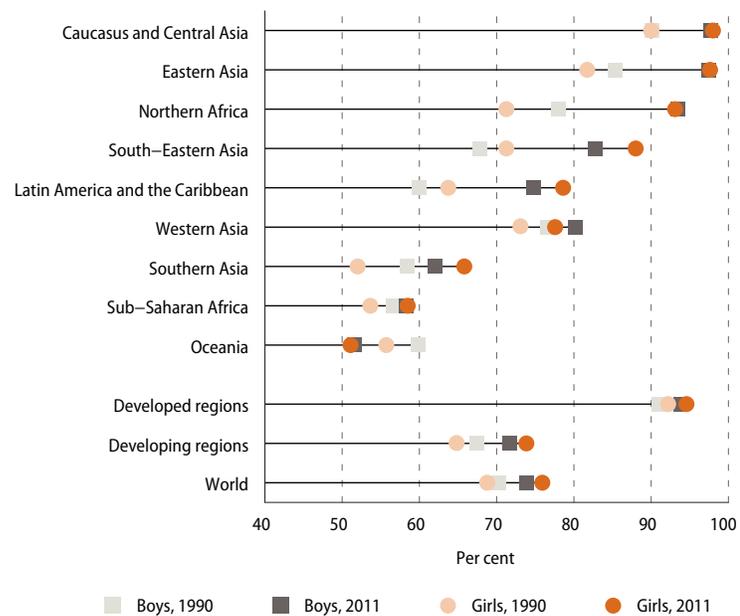
Source: UNESCO Institute for Statistics, 2014.
Note: Regions are listed in descending order of the survival rate for girls in 2011.

Figure 3.6
Transition rates from primary to secondary education by sex and region, 1990 and 2011
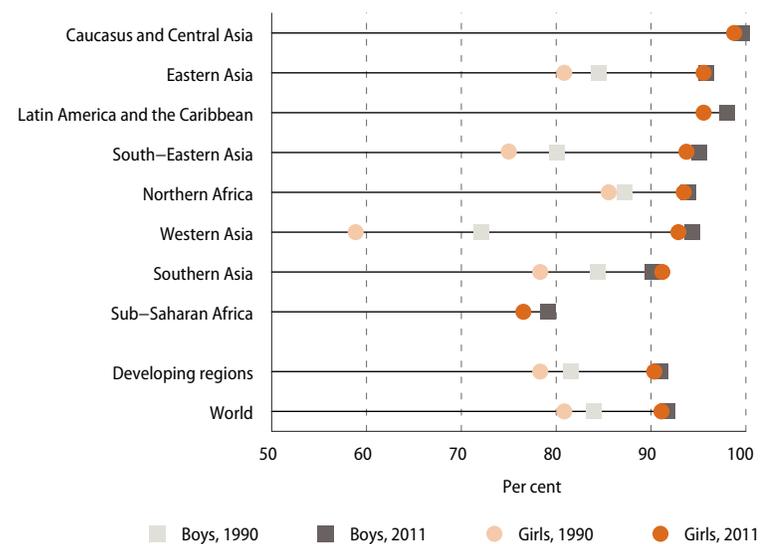
Source: UNESCO Institute for Statistics, 2014.
Note: Regions are listed in descending order of the transition rate for girls in 2011.

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23 Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats. un.org/unsd/gender/worldswomen.html.

24 Secondary education comprises lower secondary (ISCED 2), upper secondary (ISCED 3) or postsecondary non-tertiary (ISCED 4).

25 This is so partly because in some countries primary education is compulsory and freely provided by the State, while secondary education is not, especially in developing countries.

Despite progress in reducing gender disparities in secondary enrolment, girls still face significant disadvantages in many regions

Between 1990 and 2000, the gender gap between the global GERs for boys and girls declined from 9 to 5 percentage points (figure 3.7). The decline continued steadily through 2012, shrinking to only 2 percentage points. Despite the gains made over the past two decades, girls are still less likely than boys to enrol in secondary school in Oceania, sub-Saharan Africa, and Southern and Western Asia—all regions with low overall enrolment rates for both boys and girls. In regions with higher overall secondary enrolment ratios—such as Eastern Asia and Latin America and the Caribbean—gender-based disparities favour girls. Developed regions and the Caucasus and Central Asia are the only regions that have achieved and maintained equal access to secondary education for both boys and girls throughout the period 1990–2012.

The number of countries reporting gender parity at the secondary level was lower than that at the primary level in most regions

Although gender disparities in access to secondary education have been reduced, they remain more prevalent and wider than those at the primary level (figure 3.8). In those countries where girls are severely disadvantaged, gender differences at the secondary level are partly a reflection of cumulative gender disparities at the primary level and those at the transition to the secondary level.[26] A small number of countries are near gender parity in secondary education than in primary education. Out of 184 countries with data for the period 2005–2012, gender parity has been attained in only 62 countries, in contrast to 113 countries at the primary level. Gender disparities in secondary education favouring girls over boys have been observed in 58 countries with data. On the other hand, gender disparities favouring boys were found in 64 countries with data. In 36 countries, the GPI was less than 0.90.[27]

Out-of-school adolescents of lower secondary school age

A large number of young adolescents of lower secondary school age[28] are out of school.[29] In 2012, 62 million, or one in five adolescents of lower secondary school age, were out of school worldwide.[30] The problem is most widespread in sub-Saharan Africa and Southern Asia, which together account for more than three quarters (77 per cent) of all out-of-school adolescents in this age group. Many out-of-school adolescents are likely to face the prospect of social and economic marginalization.[31] Out-of-school adolescent girls face additional challenges, including early marriage and pregnancy and the burden of domestic responsibilities.

Girls make up half of the global out-of-school adolescent population of lower secondary age

Globally in 2012, girls made up 50 per cent of out-of-school adolescents of lower secondary age, compared to 53 per cent in 1999. Substantial variations are found among and within regions. In Western Asia, girls accounted for 60 per cent of all out-of-school adolescents of lower secondary school age. In sub-Saharan Africa and the Caucasus and Central Asia, the share of girls in the out-of-school adolescent population was well over half. Girls made up slightly less than half of the out-of-school adolescents in the other regions.

Progress at the global level has been notable since 1999, especially for girls. During the period 1999–2012, the global rate of out of school adolescent girls declined from 28 to 17 per cent, while that for boys dropped from 23 to 16 per cent.[32] Less than 10 per cent of adolescent girls and boys of lower secondary age were out of school in the developed regions, Eastern Asia, Latin America and the Caribbean and the Caucasus and Central Asia. The out of school rates were much higher in sub-Saharan Africa (36 per cent of adolescent girls and 31 per cent of adolescent boys) and in

26 UNESCO Institute for Statistics, 2005.

27 Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

28 Usually between 12 and 15 years old.

29 Typically, young adolescents are not enrolled in lower secondary school either because they have not completed primary school or could not make the transition to lower secondary school.

30 Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

31 UNESCO, 2010.

32 Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

Southern Asia (26 per cent of boys and girls). Among countries with available data, the rate was higher than 20 per cent for girls and/or boys in 36 countries. The difference between the rate for girls and that for boys was larger than 15 percentage points in Angola, Antigua and Barbuda, Bangladesh, Central African Republic, Ethiopia, Guinea, Iraq, Mali, Swaziland, Togo and Yemen.[33]

Graduation from lower secondary education

Completion ratios for lower secondary education are inadequate in several countries

The gross graduation ratios[34] for lower secondary education exceeded 80 per cent for both girls and boys in almost all countries with available data for 2012 (or latest available year since 2005) in developed regions, Eastern Asia and the Caucasus and Central Asia. Similarly, completion of lower secondary education was relatively high in Latin America and the Caribbean and Western Asia, where several countries reported graduation ratios close to or above 80 per cent. On the other hand, in sub-Saharan Africa, graduation ratios were lower than 40 per cent in nearly three quarters of countries with available data (figure 3.9).

Girls completed lower secondary education at a higher ratio than boys in the majority of countries with data

Girls completed lower secondary education at a higher ratio than boys in more than half of the countries with available data (figure 3.9), despite being more disadvantaged in participation at the secondary level in many developing regions. Out of 101 countries reporting data, girls graduated at a higher ratio than boys in 57 countries. In Latin America and the Caribbean, this was the case in 24 out of 29 countries and areas with available data. The exceptions were Anguilla, the Bahamas, the British Virgin Islands, Cuba and Saint Lucia, where boys outperformed girls. Girls completed lower secondary education at a higher ratio than boys in Northern Africa, Oceania, Southern Asia (except Afghanistan and Pakistan) and Western

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33 *Ibid.*

34 The gross graduation ratio for lower secondary education is the number of graduates of lower secondary education, regardless of age, expressed as a percentage of the population at the theoretical graduation age for this level. The ratio can exceed 100 per cent because the number of graduates in the calculation includes children who are over-aged and under-aged relative to the theoretical graduation age.

Asia (except Yemen). However, the reverse was observed in 22 of the 28 countries reporting data by sex in sub-Saharan Africa. The exceptions were Botswana, Cabo Verde, Mauritius, Seychelles, South Africa and Swaziland, where girls graduated at a higher ratio than boys. Gender differences were minor (less than 5 percentage points) or at parity in developed regions and Eastern Asia. A similar situation prevailed in South-Eastern Asia (except in the Philippines, where

Figure 3.7
Secondary gross enrolment ratios by sex and region, 1990, 2000 and 2012
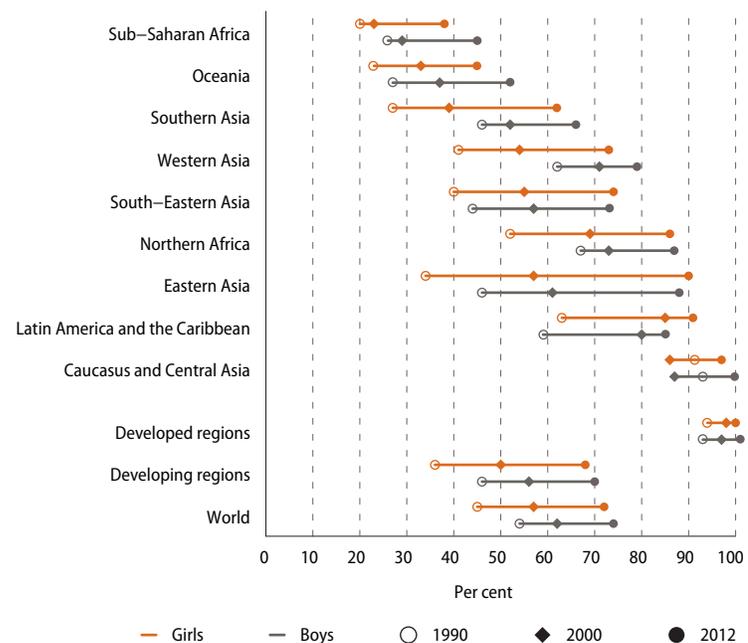
Source: UNESCO Institute for Statistics, 2014.
Note: Regions are listed in ascending order of the secondary gross enrolment ratio for girls in 2012.

Figure 3.8
Gender parity index (GPI) for gross enrolment ratios in primary, secondary and tertiary education, 2005–2012 (*latest available*)
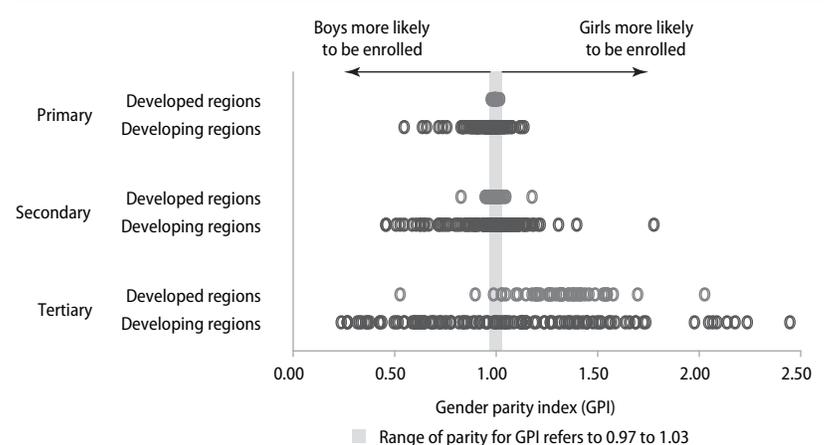
Source: UNESCO Institute for Statistics, 2014.

Figure 3.9

Gross graduation ratios for the lower secondary level by sex and region, selected countries, 2005–2012 (*latest available*)

Per cent

● Girls   ■ Boys

Note: Data are presented for countries where the difference between the gross graduation ratios for girls and boys is at least 5 percentage points. The ratio can exceed 100 per cent because the number of graduates in the calculation includes children who are over-aged and under-aged relative to the theoretical graduation age.

girls graduated at a ratio of 15 percentage points higher than that for boys) and the Caucasus and Central Asia (except in Armenia where the ratio was in favour of girls by 26 percentage points, and in Tajikistan, where it was to the advantage of boys by 10 percentage points).

Participation in technical and vocational education and training

Technical and vocational education and training (TVET) programmes develop skills and competencies valued by employers and/or are useful for self-employment. Such programmes equip young women and men with capabilities that can broaden their opportunities in life and prepare them for the transition from school to work. TVET encompasses a wide range of fields—from teacher training programmes to commercial studies and to various technical fields in industry and engineering.

More boys than girls participate in TVET in all regions except Latin America and the Caribbean

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Between 1990 and 2012, the global share of girls enrolled in TVET programmes at the secondary level remained unchanged at 44 per cent (figure 3.10). This proportion has fallen slightly—from 45 to 43 per cent—in developed regions. Among developing regions, the share of girls enrolled in TVET has declined slightly in Latin America and the Caribbean, Oceania and South-Eastern Asia. The share has increased, however, in Eastern Asia, sub-Saharan Africa, and Southern and Western Asia.

Of the 163 countries for which data were available for the period 2005–2012, girls had lower TVET enrolment than boys in 140 countries.[35] In 34 of those countries, young women were considerably underrepresented, at only one third of enrolment or less. In several Southern Asian countries, including Afghanistan, Bangladesh, Bhutan, India and Nepal, the share of girls was between 12 and 33 per cent. In Western Asia, the share of girls enrolled in such programmes was between 5 and 19 per cent in Bahrain, Iraq, Kuwait, Saudi Arabia, United Arab Emirates, Yemen and the State of Palestine. Similarly, in sub-Saharan Africa, the majority of countries showed lower

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35 Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

enrolments among girls than boys. In Angola, Comoros, Madagascar, Sao Tome and Principe, Sudan and Tunisia, girls' shares were only a third or less. However, in six countries in the region (Ethiopia, Kenya, Lesotho, Liberia, Niger and Senegal), girls represented half or over half of TVET enrolment. More girls were enrolled than boys in 16 of the 163 countries with data. Most of those countries were located in Latin America and the Caribbean, including Brazil, Colombia, Costa Rica, Dominica, Dominican Republic, El Salvador, Guatemala, Mexico, Nicaragua and the Bolivarian Republic of Venezuela.[36]

Box 3.4
Learning achievement of girls and boys

The main purpose of any education system is to impart skills to young people so that they can effectively participate in the social, economic and political life. Getting children into school is not an end in itself. The ultimate measure of success is not only the extent to which children learn, but the quality of their education experience. Student assessment surveys provide a measure for assessing learning outcomes and the quality of education. Such surveys allow some assessment to be made of the relative achievements of girls and boys in terms of the subjects they study in school. The Organisation for Economic Co-operation and Development (OECD) Programme for International Student Assessment (PISA)—which surveys school performance among 15-year-olds around the world, particularly in reading, mathematics and science—makes it possible to measure disparities among and within countries in terms of the skills students attain after a given period of learning. Typically, this is done after about eight years of schooling, near the end of compulsory education in many countries.

Results from a PISA survey[a] conducted in 2012 in 34 OECD member States and 31 other countries and areas showed large gaps in learning achievement among countries. In general, low-income countries lag far behind high-income countries in learning achievement. Also, there is less variation among OECD countries than among non-OECD countries. Furthermore, differences among countries represent only a fraction of the overall variation in student performance. In all three subjects tested—reading, mathematics and science—the differences between the lowest- and the highest-performing students within the countries were large and the inequality in learning achievement across population groups was closely related to wealth distribution. Gender differences in educational performance were considerably less prominent than differences between the countries and within countries in educational performance.[b] Nevertheless, existing gaps underscore the importance of a gender-sensitive approach in teaching.

Girls outperformed boys in reading skills in every country that participated in the 2012 PISA survey

Results from the PISA 2012 reading assessment showed that girls outperformed boys in every participating country. The OECD average score for reading performance was 478 points for boys and 515 for girls (a gender gap of 38 score points, which is roughly equivalent to one year of schooling). Similarly, the non-OECD average showed a gap of 41 points to the advantage of girls. Gender gaps in students' performance were related to gender differences in attitudes towards reading. Fifteen-year-old girls were more likely to read for enjoyment and read complex works of fiction and non-fiction, whereas boys were more likely to read comic books, which could partly be the result of their weaker reading skills. Girls also tended to be more skilled in understanding, remembering and summarizing the material they read.[c]

Boys did slightly better than girls in mathematics in most countries

Performance in mathematics was also characterized by gender differences, which tended to be smaller and less systematic than those related to reading. Boys performed better in mathematics than girls in the majority of countries that participated in the PISA survey (52 out of 65 countries or areas). The average OECD score in mathematics was 499 for boys and 489 for girls (a 10-point gender gap), while for non-OECD countries or areas, the average score was 453 for boys versus 448 for girls (a 5-point gap). In contrast to what was observed for reading, the gender gaps were not significant in many countries. In 13 countries, the gender disparities were actually in the favour of girls, albeit the size of the gaps being small. Girls appear to be narrowing the gaps in achievement in mathematics where boys have historically held an advantage. Gender differences in science performance showed much narrower gaps than in mathematics and reading for most countries or areas—both OECD and non-OECD—and in most cases the gaps were not statistically significant.[d]

a OECD, 2014.
b *Ibid.*
c *Ibid.*
d *Ibid.*

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36 *Ibid.*

4. Tertiary education

Tertiary education builds on secondary education and imparts knowledge and skills as well as qualifications in specialized fields. It also brings extensive social and private benefits. At the individual level, pursuing and completing a tertiary education are linked to better employment opportunities and higher levels of earning (see, for example, Chapter 4 on Work). At the societal level, tertiary education graduates contribute to human capital, which is essential for economic development, productivity growth, innovation and the healthy functioning of government and civil society.[37]

Participation in tertiary education

Tertiary enrolment of women and men globally has seen substantial growth over the past two decades

Globally, participation in tertiary education showed remarkable progress between 1990 and 2012, reflecting the steady expansion of education systems around the world and the increasing demand for a highly skilled labour force. Over that period, participation, as measured by

Figure 3.10
Share of girls participating in TVET at the secondary level, 1990, 2000 and 2012

Source: UNESCO Institute for Statistics, 2014.
Note: Regions are listed in descending order of the share of girls in 2012.

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37   UNESCO Institute for Statistics.

the tertiary GER,[38] rose from 13 to 33 per cent for women, and from 14 to 31 per cent for men (figure 3.11). Substantial progress was observed across the world, with developing countries as a whole registering a threefold increase for men and a fourfold increase for women.

Participation in tertiary education shows large regional disparities

Despite considerable expansion of tertiary education across the board, tertiary GERs show large regional disparities. Gross enrolment ratios are high for both women and men in regions where tertiary education participation has historically been high. Developed regions, Latin America and the Caribbean, and Western Asia remain the global leaders. Developed regions expanded tertiary enrolment from 42 to 66 per cent for men and from 46 to 85 per cent for women. In Latin America and the Caribbean, the tertiary GER more than doubled for men and almost tripled for women. In terms of progress since 1990, Eastern Asia enjoyed a nearly fivefold increase for men and a tenfold gain for women. Growth in tertiary enrolment in this region has been especially remarkable since the year 2000. Similarly, Western Asia saw nearly a tripling of growth for men and almost a quadruple rise for women.

In contrast, despite significant progress, tertiary GERs for women and men remain low in other regions. In sub-Saharan Africa, it only rose from 4 to 10 per cent for men and from 2 to 6 per cent for women over the period 1990-2012. Similarly, in Southern Asia, GERs are lower than global averages at 25 per cent for men and 20 per cent for women. When India is excluded from the averages, these ratios drop to 19 per cent for men and 17 per cent for women. Between 1990 and 2012, the Caucasus and Central Asia was the only region in the world to experience stagnation in tertiary participation in the mid- to low-20 per cent range for both men and women.

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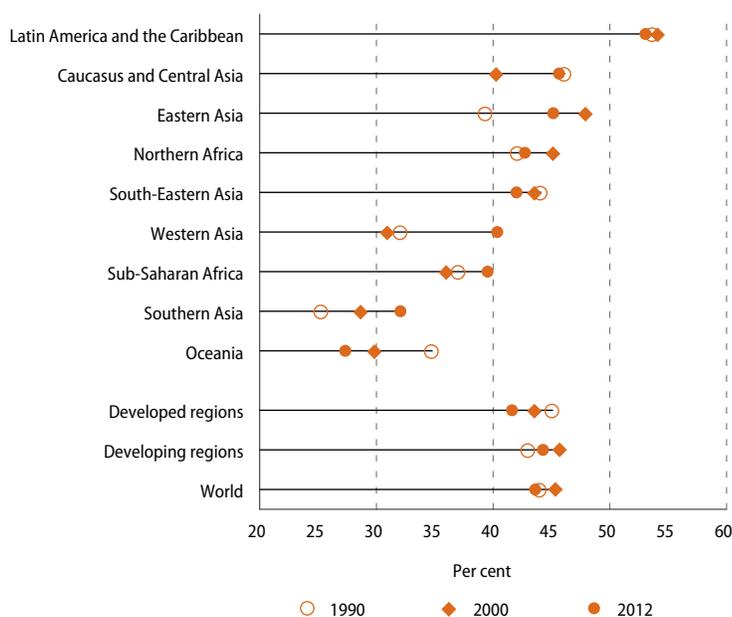
38   The gross enrolment ratio in tertiary education is computed as the total enrolment in tertiary education, regardless of age, expressed as a percentage of a target population group consisting of the five-year age group following secondary school leaving. There are limitations when comparing the actual population coverage across countries due to the diversity in the duration of tertiary programmes, the enrolment of large numbers of women and men outside the target age group, and the high levels of drop outs and frequent re-enrolments.

Enrolment in tertiary education is increasing faster for women and exceeding that of men in most regions, but in sub-Saharan Africa and Southern Asia women remain at a serious disadvantage

Changing patterns of participation in tertiary education between 1990 and 2012 have shifted gender disparity from a male to female advantage in the world and in most regions (figure 3.11). In 1990, men's participation was higher than that of women as reflected in a worldwide GPI of 0.90.[39] Since then, the global participation of women has increased at a faster rate than that of men, enabling the tertiary enrolment ratios of men and women to reach parity around the year 2000. Subsequently, the global participation of women exceeded that of men, shifting gender disparity from a male to female advantage. In 2012, the GPI of the global tertiary enrolment of women and men stood at 1.08, reflecting a gender disparity highly favouring women.[40]

In most regions of the world, women outnumber men in tertiary education. In 2012, the GPI surpassed the parity range in developed regions (GPI of 1.28), Northern Africa (1.22), Latin America and the Caribbean (1.28), Eastern Asia (1.08), South-Eastern Asia (1.12) and the Caucasus and Central Asia (1.07). However, considerable disparity in favour of men persists in sub-Saharan Africa and Southern Asia (GPI of 0.64 and 0.81, respectively). Overall, there are almost as many women as men enrolled in tertiary education in the Western Asia, but the regional average conceals very low participation among women in several countries. For instance, the GPI was 0.44 for Yemen and 0.60 for Iraq.[41]

Out of 168 countries with available data for the period 2005–2012, only six countries showed gender parity at the tertiary level. In 106 countries, disparities were in favour of women, while in the other 56 countries they favoured men. Women outnumber men in tertiary enrolment in almost all countries in developed regions, but only in half of the countries in developing regions (see figure 3.8). For instance, women's participation in tertiary education was less than half that of men's (GPI of less than 0.50) in several countries with low tertiary enrolment in sub-Saharan Africa and Western Asia, including Benin, Chad, Eritrea,

Figure 3.11
Tertiary gross enrolment ratios by sex and region, 1990, 2000 and 2012
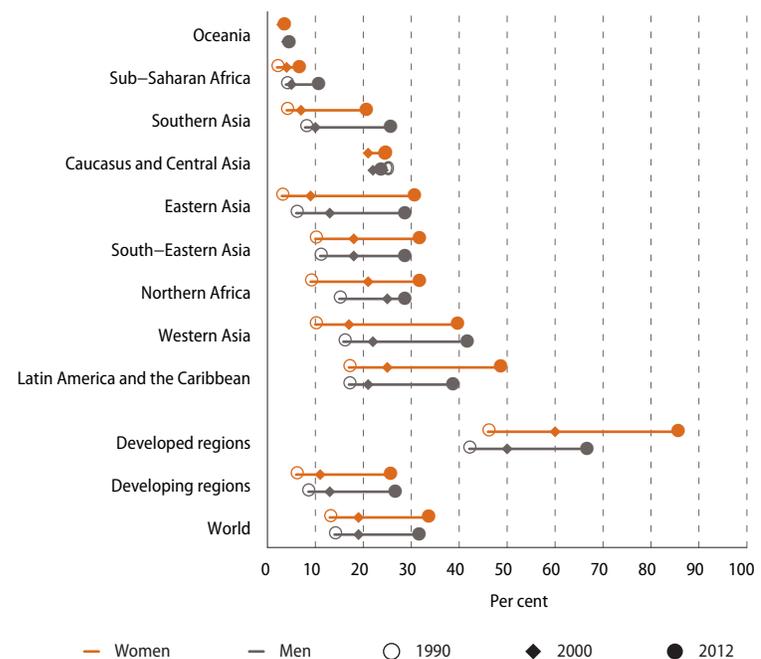
Source: UNESCO Institute for Statistics, 2014.
Note: Regions are listed in ascending order of the tertiary gross enrolment ratio for women in 2012.

Ethiopia, Guinea, Mauritania, Niger and Yemen.[42] It is important to consider gender equality in the context of the overall level of participation in tertiary education. Where tertiary GERs remain low, countries must address gender inequalities as they seek to broaden access to tertiary education for all students, women and men alike.

Tertiary graduates by field of study

The field of study that men and women choose has an impact on their future lives, careers, incomes and roles in society. Many factors drive students' subject preferences in tertiary education, including performance in secondary education, perception of one's own abilities, social, economic and family background, career aspirations and labour market expectations. Gender-based stereotypes and gender differences in the balance between job and family responsibilities are also a significant factor.

Figure 3.12 presents data on the proportion of women and men graduates in eight broad fields of study: education; health and welfare; humanities and arts; social science, business and law; science; engineering, manufacturing and con-

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39 Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.
40 *Ibid.*
41 *Ibid.*

42 *Ibid.*

struction; agriculture; and services. The figure illustrates that women and men choose very different fields of study in tertiary education. This observation holds across many developing and developed countries.

Women are more likely to graduate in fields related to education, health and welfare, and humanities and arts

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Fields of study traditionally dominated by women—education, health and welfare, and humanities and arts—continue to be more often preferred by women than by men (figure 3.12). Women are particularly prominent in education and in health and welfare. Women were at least twice as likely to graduate in education as men in three quarters of the 111 countries reporting data by field of study for the period 2005–2012. In the case of health and welfare programmes, women were at least twice as likely to graduate in that field as men in four out of five countries. Among women graduates, on average, one out of six graduated in the field of education compared to one out of 10 men graduates; and one in seven women graduated in health and welfare, compared to one in 15 men.

Women are less likely than men to graduate in fields related to science and engineering

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Despite enjoying better access to tertiary education than ever before, women continue to face challenges in participating in some fields of study traditionally dominated by men. Women are less likely than men to graduate in science, engineering, manufacturing, construction, agriculture, and services. This is particularly so in the case of engineering and to a lesser extent science among countries with data for the period 2005–2012 (figure 3.12). Among men graduates, on average, one in five graduated in engineering compared to one out of 20 women graduates, and one in nine men graduated in science compared to one in 14 women. In all countries with data, with the exception of Cyprus (where 16 per cent of men and 11 per cent of women graduated in engineering) and Myanmar (4 per cent of men and women), men were at least twice as likely to graduate in engineering as women. In a third of these countries, representing different regions, the percentage of men graduating in this field was at least 5 times higher than that of women. As for the field of science, in 6 out of 10 countries with data, the percentage of men graduating in this field was at least twice that of women.

B. Women in research and development

Researchers are professionals engaged in the conception or creation of new knowledge, products, processes, methods and systems, as well as the management of these projects. Innovation is an acknowledged determinant of economic growth.[43] Since research and development is one of the key components of innovation, it is important to assess the gender-balance in the research workforce. Despite improved access to tertiary education, women still face considerable barriers as they transition from higher education to careers in research. As a result, women continue to be underrepresented in research and development. This limits their ability to contribute to innovation on an equal basis with men. It also affects the overall quality of research given the different perspectives women bring to any project.[44]

1. Participation in research

Less than a third of world's researchers are women

In 2011, women constituted 30 per cent of all researchers worldwide (figure 3.13). This figure has remained almost constant over the past decade, highlighting the lack of progress towards gender parity in this area. Developed regions (30 per cent) and developing regions (31 per cent) are similar in terms of the average shares of women researchers. Only one region—the Caucasus and Central Asia (45 per cent)—has achieved gender parity, defined here as a share of between 45 and 55 per cent (inclusive) for each sex. Latin America and the Caribbean (44 per cent), South-Eastern Asia (43 per cent) and Northern Africa (40 per cent) follow closely. By comparison, the share of women researchers is lowest in Eastern Asia (18 per cent) and Southern Asia (20 per cent).

Women accounted for less than half of researchers in 108 out of 120 countries with available data[45] in the period 2005–2012. In 53 countries, women's share is less than a third. This is the case in 19 out of 30 countries with available data in sub-Saharan Africa.

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43 UNESCO Institute for Statistics, 2014a.

44 European Commission, 2013.

45 Data based on UNESCO Institute for Statistics, 2014b. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

Figure 3.12
Proportion of tertiary graduates by field of study, women and men, 2005–2012 (*latest available*)
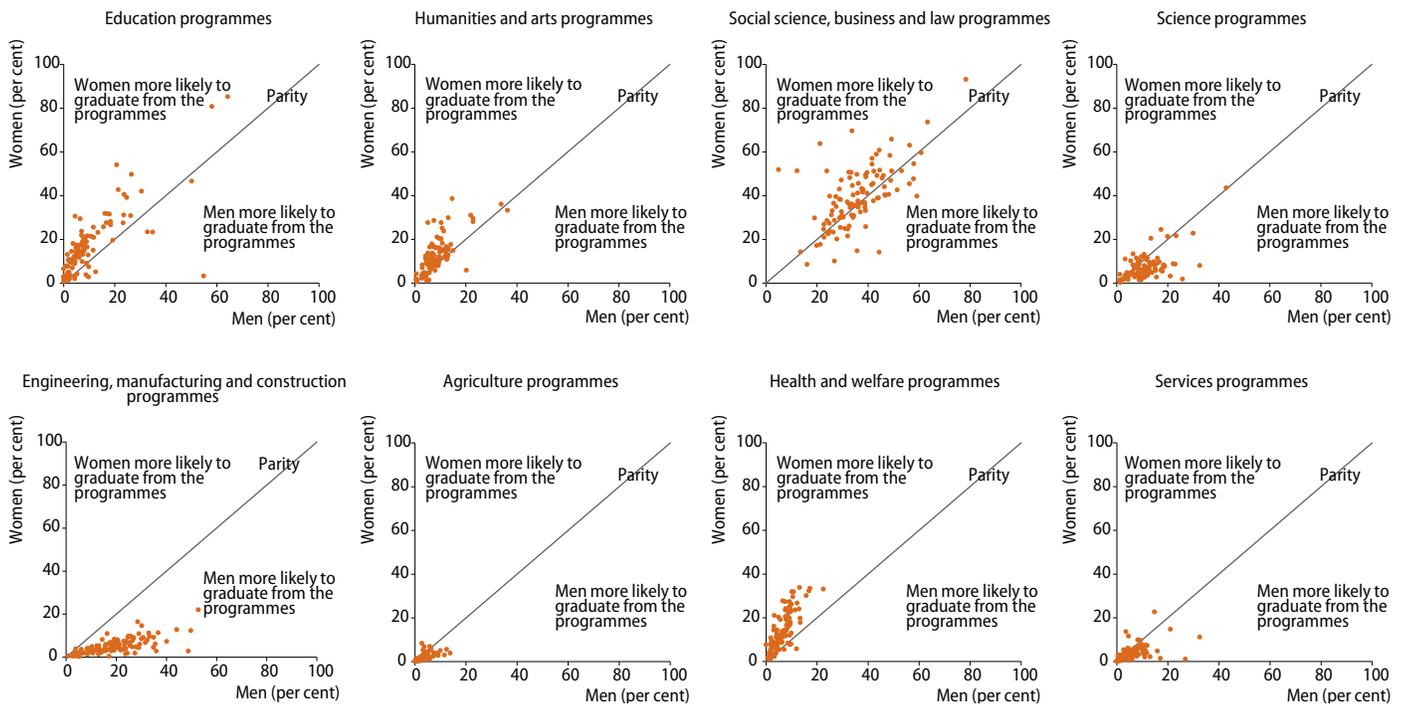
2. Field of research

The current gender distribution of researchers in the various fields of science is the cumulative result of variations in graduation from tertiary education, particularly at the highest level required for a research career, and in the labour market. Figure 3.14 presents the share of women among researchers by region in six specific fields of science: natural sciences; engineering and technology; medical sciences; agricultural sciences; social sciences; and humanities.

Men dominate in all fields of research globally

At the global level, gender disparities reflect the advantage men have in participation in all the six areas of research. Most regions display the same pattern of male domination, with the exception of South-Eastern Asia, which has registered parity in participation across all six research fields.

In two fields—medical sciences and humanities—the global share of women is relatively higher (42 per cent and 44 per cent, respectively)

and comes close to parity.[46] Several regions display parity for these two fields. For instance, four regions—Latin America and the Caribbean, Northern Africa, South-Eastern Asia and Western Asia—show parity in medical sciences. In the Caucasus and Central Asia, women are actually at an advantage in this field. In addition, more than one third of the 67 countries or areas with available data in the field of humanities in the period 2005–2012 reported gender parity. In 10 countries or areas, women represented over 55 per cent of the total researchers in the humanities, whereas their share was lower than a third in 21 countries or areas.

Globally, women's participation is the lowest in engineering and technology (17 per cent). Only South-Eastern Asia achieved parity (45 per cent) in this field, while in the remaining regions, the overwhelming majority of researchers in this field are men. Only four countries—Azerbaijan, Guatemala, Malaysia and Mongolia—out of 74

[46] Here gender parity is defined as a share of between 45 and 55 per cent (inclusive) for each sex.

Figure 3.13
Women's and men's share of the total number of researchers by region, 2011
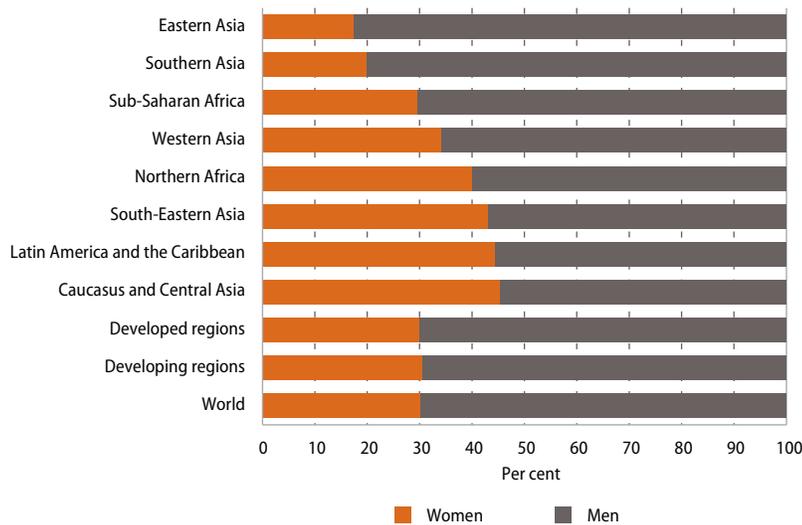
Source: UNESCO Institute for Statistics, 2014.
Note: Data on researchers are based on the total number of persons who are mainly or partially employed in research and development. This includes staff employed both full-time and part-time. Regions are listed in ascending order of women's share in 2011.

with available data for this field recorded parity in the period 2005–2012.[47] In 55 countries, men outnumbered women researchers by more than two to one. Much remains to be done to increase women's participation in research and to strengthen their influence in the science and technology agenda.

C.   Women in teaching

Teachers represent a key educational resource. Trained, qualified and well-motivated teachers are fundamental for an effective learning environment and better quality in education. The teaching staff has an important role in the creation of a gender-sensitive learning and social environment in which girls and boys are treated equally and encouraged to achieve their full potential. Policies that promote gender balance in teaching workforces have been found to have a positive impact on access to education and completion rates, especially for girls and young women.[48] The mere presence of female teachers is, however, insufficient to ensure that girls enrol and complete schooling. In this regard, training teachers to be gender sensitive is crucial.

Teaching at the primary level is dominated by women

The participation of women in the teaching profession has increased over the period 1990-2012 at all levels of education in most regions (figure 3.15). Women accounted for about two thirds of primary school teachers worldwide in 2012, up from 56 per cent two decades ago. They constitute the majority of primary school teachers in most regions of the world, although the data show significant variations across countries. In the developed regions as a whole, women teachers accounted for 84 per cent of the primary teaching staff in 2012 compared to 58 per cent in developing regions. The share was highest in the Caucasus and Central Asia at 89 per cent and lowest in sub-Saharan Africa at 44 per cent.

In 82 countries out of 164 reporting data for the period 2005–2012, the proportion of female primary school teachers exceeded 75 per cent.[49] The proportion exceeded 90 per cent in 22 countries, while in 15 countries it was less than 30 per cent. All but one of these countries was in sub-Saharan Africa. The proportion of women primary teaching staff is lower in countries with low levels of overall enrolment.

Women's share in teaching staff declines at successive levels of education

The share of women teachers is lower at the post-primary levels of education. Globally, 52 per cent of teachers at the secondary school level were women in 2012, up from 48 per cent in 1990. The proportion for developing regions as a whole was 48 per cent, and 63 per cent for developed regions. Regionally, the proportion ranged from 69 per cent in the Caucasus and Central Asia to 31 per cent in sub-Saharan Africa. Women teachers throughout sub-Saharan Africa are vastly outnumbered by men. In 16 countries in the region, the proportion of female teachers at the secondary level was below 20 per cent. Similarly, in the majority of Southern Asia countries, including Afghanistan, Bangladesh, Bhutan, India and Nepal, women's share was below half.[50]

At the tertiary level, most teaching staff in the world are men. Women represented 42 per cent

47 Data based on UNESCO Institute for Statistics, 2014b. Data shown in the Statistical Annex. http://unstats. un.org/unsd/gender/worldswomen.html.
48 UNESCO Institute for Statistics, 2010.
49 Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats. un.org/unsd/gender/worldswomen.html.
50 Ibid.

Figure 3.14
Share of women among researchers by region and field of science, 2011
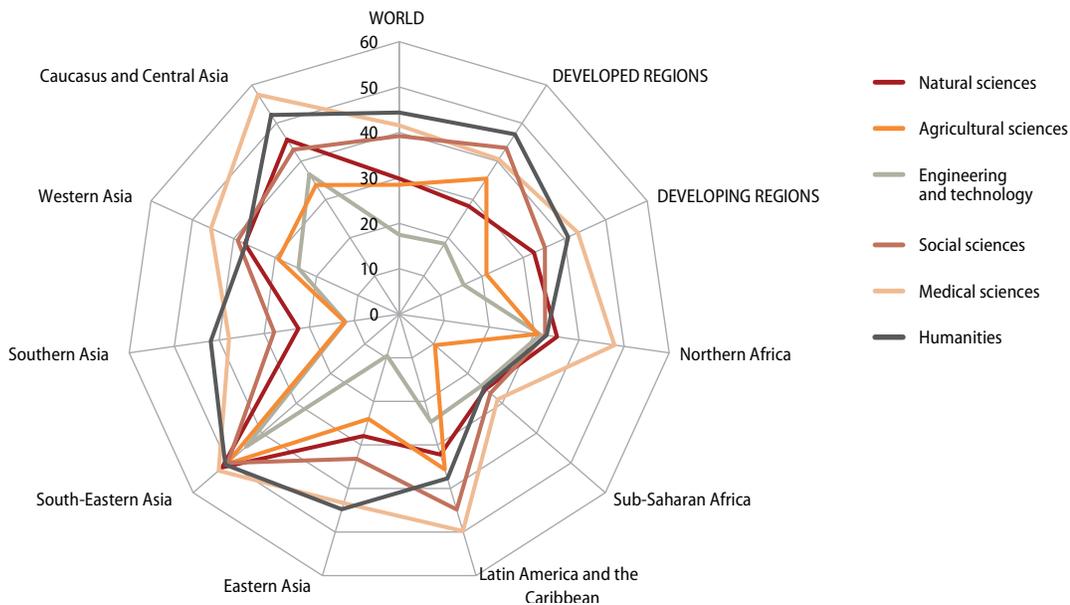
Legend:
- Natural sciences
- Agricultural sciences
- Engineering and technology
- Social sciences
- Medical sciences
- Humanities

of teachers at this level globally in 2012. The share was about the same in both developing and developed regions. Tertiary-level data for 135 countries reported during the period 2005–2012 showed that in 110 countries, the proportion of women teachers was below 50 per cent. Despite this general pattern, there are more women teachers than men at the tertiary level in Eastern Europe (Albania, Belarus, Latvia, Lithuania, Republic of Moldova and the Russian Federation), Latin America and the Caribbean (Aruba, Colombia, Cuba, Guyana and Saint Lucia), the Caucasus and Central Asia (Armenia, Azerbaijan, Georgia, Kazakhstan and Kyrgyzstan) and South-Eastern Asia (Malaysia, Myanmar, the Philippines and Thailand).[51]

D. Educational outcomes and lifelong learning

1. Literacy

Literacy[52] is essential for accessing information, knowledge and skills, for acquiring the abilities to cope with the challenges and complexities of life, and to participate fully in society. A lack of literacy is strongly correlated with poverty and exclusion from social and economic opportunities.

Women make up nearly two thirds of illiterate adults, a proportion that has remained unchanged for two decades

In 2012, an estimated 781 million adults aged 15 and over were illiterate, nearly all (99 per cent) of whom were found in developing regions. Nearly two thirds of the world's illiterate adults (496 million) were women, a share that has held steady since 1990. Women make up more than half of the illiterate population in all regions of the world. In Eastern and Western Asia, they make up nearly three quarters of the illiterate population.

51 *Ibid.*

52 UNESCO defines literacy as the ability to read, write and understand a simple statement related to one's daily life. It involves a continuum of reading and writing skills, and often includes basic arithmetic skills or numeracy.

Figure 3.15

Share of women among teaching staff by level of education and region, 1990, 2000 and 2012

● Women teaching staff in primary ◆ Women teaching staff in secondary ■ Women teaching staff in tertiary
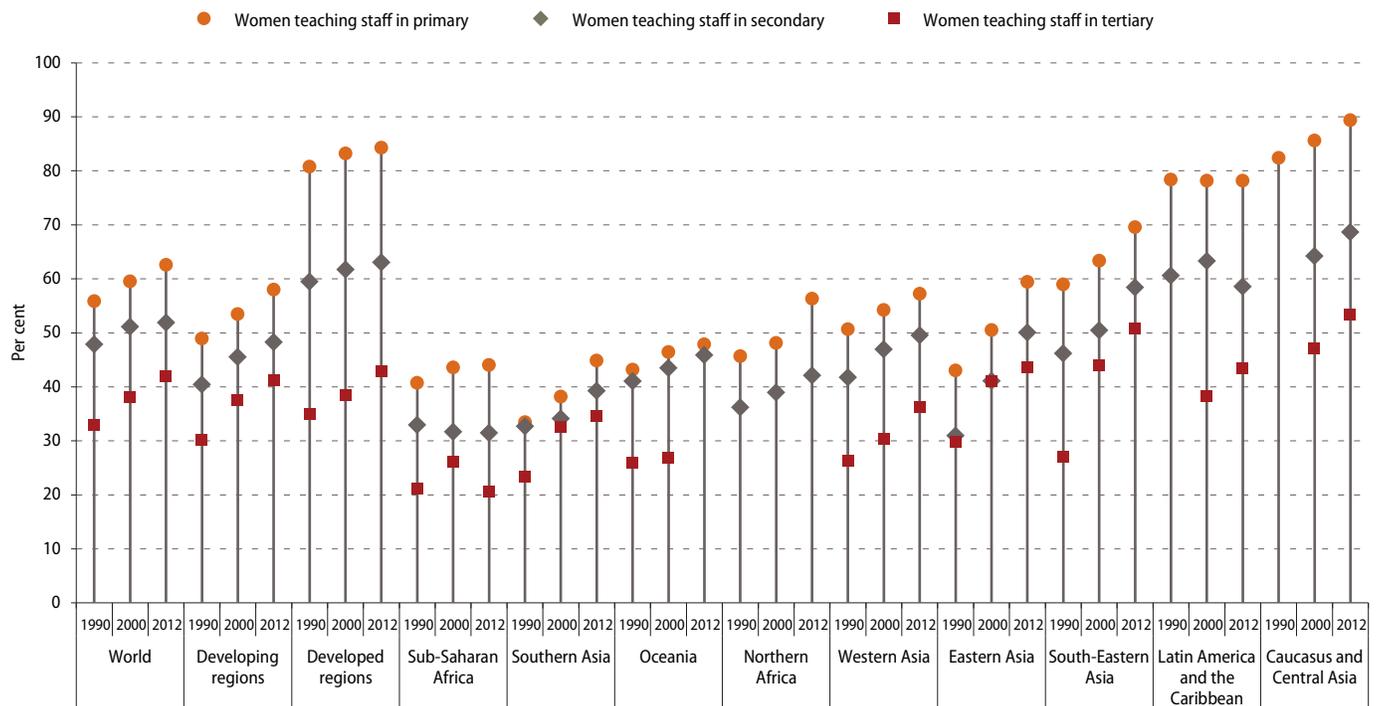
Source: UNESCO Institute for Statistics, 2015. UIS Data Centre. http://www.uis.unesco.org (accessed in February 2015).
Note: Regions are listed in ascending order of women's share among teaching staff in primary.

Adult literacy rates have improved in all regions of the world for both women and men

Globally, in the period 1990–2012, the adult literacy rate[53] for men rose from 82 to 89 per cent, and for women from 69 to 80 per cent (figure 3.16). Northern Africa, sub-Saharan Africa, Southern Asia and Western Asia—all regions that in 1990 had literacy rates for both sexes significantly below global averages—have registered gains. Developing regions that had adult literacy rates above the global averages in 1990—namely, Eastern Asia, Latin America and the Caribbean, South-Eastern Asia and the Caucasus and Central Asia—have also seen progress, with Eastern and South-Eastern Asia showing considerable improvement, especially for women. At the country level, less than 50 per cent of adult women had basic literacy skills in 24 out of 158 countries with data for 2012 (or the latest year over the period 2005–2012). With the exception of Afghanistan, Bhutan, Haiti, Nepal and Pakistan, the other 19 countries were in sub-Saharan Africa. In com-

parison, the rate was less than 50 per cent for adult men in 8 out of the 158 countries.[54]

Gender disparities in adult literacy rates have diminished globally, but women are still losing out to men in four developing regions

Between 1990 and 2012, the gender gap in adult literacy rates decreased in all regions (figure 3.16). The gap between the global rates for men and women was 8 percentage points in 2012, down from 13 percentage points in 1990. Developed regions, Latin America and the Caribbean, and the Caucasus and Central Asia have attained gender parity in adult literacy, while Eastern Asia, South-Eastern Asia and Oceania are close to attaining that goal. Gender disparity remains a serious concern in Northern Africa, sub-Saharan Africa, Southern Asia and Western Asia, where the gender gap was in the range of 10 to 22 percentage points to the advantage of men. The gap in Southern Asia and sub-Saharan Africa remains wide and persistent. In Southern Asia,

[53] The adult literacy rate is the percentage of the population aged 15 and over who are literate.

[54] Data based on UNESCO Institute for Statistics, 2014. Data shown in the Statistical Annex. http://unstats.un.org/unsd/gender/worldswomen.html.

progress was rapid in the period 1990–2000, but only modest gains have been made for women since 2000.

Of the 158 countries with data for 2012 (or the latest year over the period 2005–2012), 74 attained gender parity in adult literacy, 4 countries showed disparities to the disadvantage of men and 80 to the disadvantage of women. Women's literacy rates were less than two thirds those of men's in 22 of those countries, four of which are located in Southern Asia (Afghanistan, Bhutan, Nepal and Pakistan), one in Western Asia (Yemen), and the rest in sub-Saharan Africa.[55]

The vast majority of young men and women have basic reading and writing skills

The vast majority of young people (aged 15 to 24) in the world are literate. Over the period 1990–2012, the global literacy rate for young women rose from 79 to 87 per cent and from 88 to 92 per cent for young men (figure 3.17). This reflects increased participation in formal schooling among younger generations. Youth literacy is almost universal in the more developed regions, in Eastern Asia and in the Caucasus and Central Asia; it is close to being universal in Latin America and in South-Eastern Asia. In parts of the world where many boys and girls do not attend school or drop out, youth literacy rates are much lower than global averages. In sub-Saharan Africa, where the rates are among the lowest in the world, only 64 per cent of young women and 76 per cent of young men are literate. In Oceania and Southern Asia, young men and women have attained basic literacy skills at rates significantly lower than the global averages for each sex.

From 1990 to 2012, gender gaps in youth literacy rates have decreased in all regions that showed disparities at the beginning of this period. However, gender gaps, to the disadvantage of young women, remain significant in Northern Africa, sub-Saharan Africa, Southern Asia and Western Asia, where they range between 4 to 12 percentage points in favour of young men.

The gender gaps in literacy rates among older persons show marked disparities against women

All regions of the world have shown progress in literacy for those aged 65 years and older. In 2012, the global literacy rate for this age group was 70 per cent for women and 81 per cent for men (figure 3.18). In 1990, the rates were much lower, at 56 per cent and 67 per cent, respectively. Developed regions and the Caucasus and Central Asia were the only regions approaching universal literacy for this age group in 2012. Latin America and the Caribbean was a distant second, with 75 per cent and 80 per cent of older women and men, respectively. The other regions had rates below the global averages for each sex. In developing regions as a whole, 51 per cent of older women and 72 per cent of older men were literate. The vast majority of older persons were illiterate in Northern Africa, sub-Saharan Africa and Southern Asia, where less than a quarter of women and less than half of men were literate.

In 2012, in developing regions as a whole, older women barely reached the 1990 literacy levels of older men. Among those regions that showed a significant gender gap in 1990, Eastern Asia, South-Eastern Asia and Western Asia have seen rapid progress in closing it. In contrast, Northern Africa, sub-Saharan Africa and Southern Asia saw a slight widening of the gap over the same period, despite rising literacy rates for both men and women.

2. Educational attainment in the population

Educational attainment—the highest level of education an individual has completed—is a measure of human capital and the skills available in a given population. Whereas current enrolment rates only provide information on the school population at a given time, educational attainment indicates the education level of an entire adult population, reflecting long-term trends in participation and completion of primary, secondary and tertiary education. Higher levels of educational attainment are reflected in the availability of a relatively high level of skills and knowledge in the labour force. Progress in educational attainment contributes to economic growth[56] and improved labour market outcomes, including in productivity, participation, and income and career progression. Beyond labour

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55 *Ibid*.

56 Thévenon and others, 2012.

Figure 3.16
Adult literacy rates (*age 15 and over*) **by sex and region, 1990, 2000 and 2012**
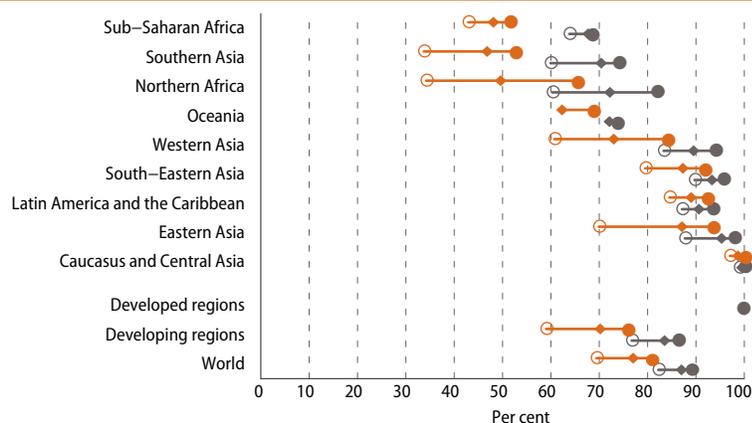
Figure 3.17
Youth literacy rates (*age 15 to 24*) **by sex and region, 1990, 2000 and 2012**
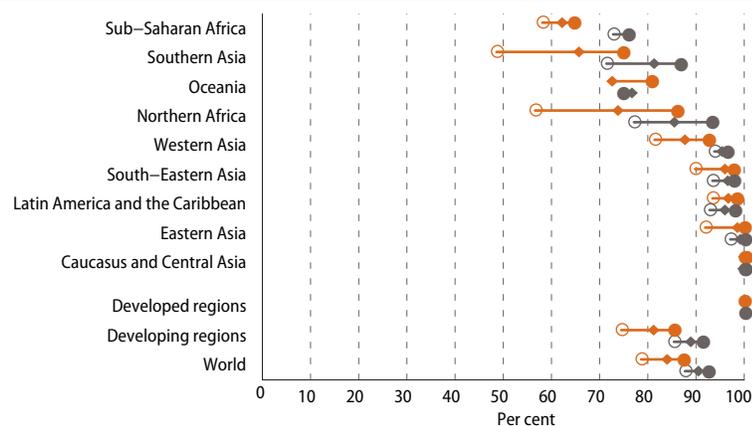
Figure 3.18
Literacy rates among older persons (*age 65 and over*) **by sex and region, 1990, 2000 and 2012**
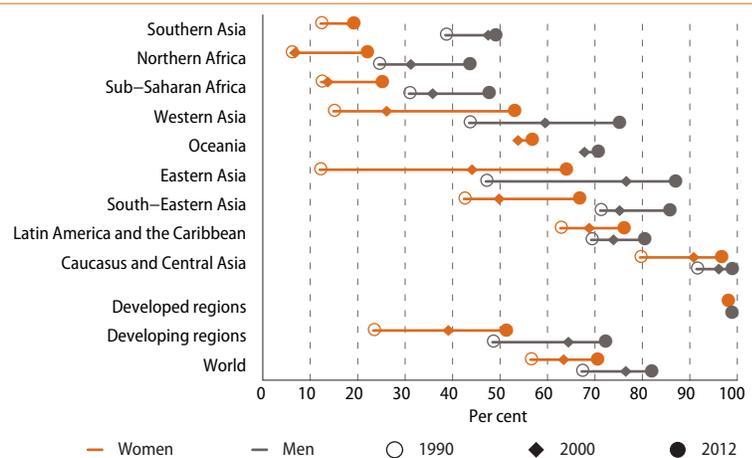
Source: UNESCO Institute for Statistics, 2014.
Note: Because literacy data are not collected annually, the Institute for Statistics-UNESCO reports regional and global data on literacy rates in reference to census decades. For ease of reading, this chapter refers to data for the 1985–1994 census decade as data for 1990, and the most recent data, for the 2005–2014 census decade, as data for 2012. Regions are listed in ascending order of the literacy rate for women in 2012.

markets, a high level of educational attainment is also associated with positive social outcomes, including improvements in participation and representation in government and political influence,[57] volunteering and interpersonal trust,[58] and the health status and survival of children and other family members. Lastly, raising educational attainment is a key mechanism for the empowerment of women.

Figure 3.19 presents the highest level of educational attainment among men and women aged 25 and older as a percentage of respective populations in each region according to four educational levels: "no schooling", "primary", "secondary" and "tertiary". There are significant variations in educational attainment across regions, suggesting a strong association with the general level of social and economic development. In developed regions, where universal primary education has been attained, the proportions of women and men with no schooling or whose highest attainment is at the primary level are small, while those whose highest attainment is at or above the secondary level are substantial. Most countries in Eastern Asia, Latin America and the Caribbean, South-Eastern Asia, Western Asia, and the Caucasus and Central Asia display a similar profile. In contrast, in sub-Saharan Africa and Southern Asia, where the goal of universal primary education has not yet been achieved, the proportions of women and men without schooling or whose highest educational attainment is the primary level are significant, but modest for those whose highest educational attainment is at the secondary or tertiary level.

> **Gender disparities against women are most evident among those with no schooling, particularly in sub-Saharan Africa and Southern Asia**

Gender differences in the educational attainment of women and men aged 25 years or older are the starkest for the category of the population with no schooling. Some of the largest gaps are found in sub-Saharan Africa, where, on average, 44 per cent of women have never attended school, compared to 34 per cent of men. A gender gap of more than 15 percentage points in favour of men was observed in Benin, Burkina Faso, Chad, Ethiopia, Ghana, Malawi, Mali, Senegal, Togo, the United Republic of Tanzania and Zimbabwe.

57 Lopez-Carlos and Zahidi, 2005.
58 OECD, 2013.

Figure 3.19

Distribution of population aged 25 and over by sex, region and the highest level of education attained, 2005–2012 (*latest available*)
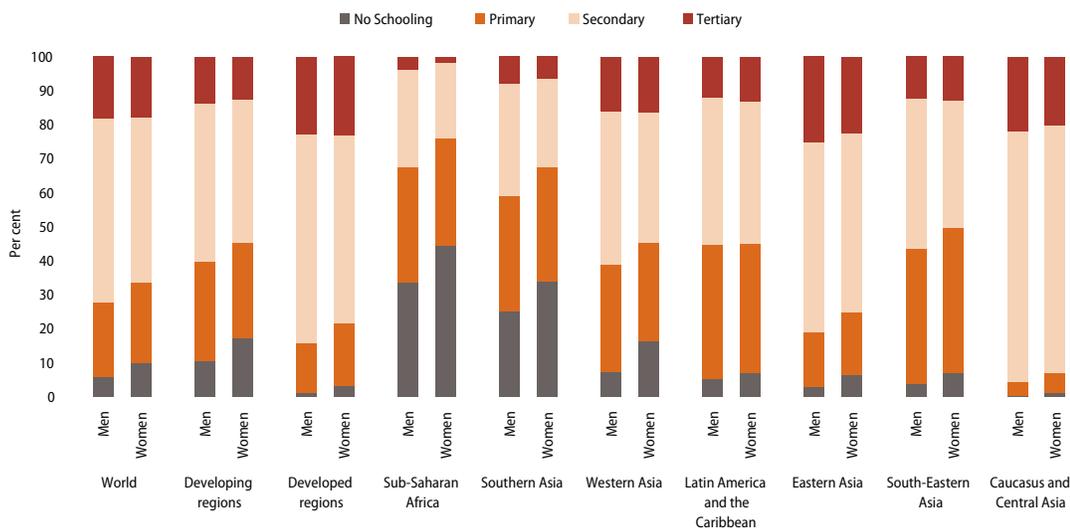
Note: Unweighted averages for regions with data for at least three countries. The educational attainment category of "no schooling" refers to all persons who have attended less than one grade at the primary level; "primary" comprises those who completed primary education (ISCED 1) or at least one grade of primary; "secondary" represents those who attended lower secondary (ISCED 2), upper secondary (ISCED 3) or post-secondary non-tertiary (ISCED 4); and "tertiary" comprises those who attended any tertiary education level (ISCED 5-6). The population whose education level is unknown has been proportionately distributed over the four categories of educational attainment. Regions are listed in descending order of the percentage of women with no schooling.

On the other hand, Kenya and Lesotho exhibited gender differences to the advantage of women among the adult population with no schooling. Gender differences are also large in Southern Asia. There, 34 per cent of women on average have no education at all, compared to 25 per cent of men. In Pakistan, 64 per cent of women have never attended school, 29 percentage points higher than for men. In Bangladesh, more than 57 per cent of women have no education, compared to 45 per cent of men. In the Western Asian countries of Bahrain, Jordan, Oman and the Syrian Arab Republic, gender gaps over 10 percentage points were recorded, all in favour of men. Some countries in South-Eastern Asia also showed moderate gender gaps in the range of 5 to 10 percentage points in favour of men.

Over a quarter of the adult population in developing regions has not completed education beyond the primary level. Primary education is the highest level of attainment for over 30 per cent of women and men in Latin America and the Caribbean, sub-Saharan Africa, Southern Asia, and South-Eastern and Western Asia. In the case of South-Eastern Asia, 43 per cent of women and 40 per cent of men have attained education only up to the primary grades. The corresponding figures for sub-Saharan Africa are 32 per cent and 34 per cent of women and men, respectively. On the other hand, in developed regions, as well as in Eastern Asia and the Caucasus and Central Asia, the proportions are less than 20 per cent for both women and men.

Secondary education is the highest educational level attained by most women and men across both developed and developing regions

Compared to other levels of education, secondary education is the level attained by most adults across both developed and developing regions. Worldwide, the average is 49 per cent of women and 54 per cent of men. In the Caucasus and Central Asia, for nearly three quarters of both men and women secondary education is the highest level of educational attainment. In developed regions and Eastern Asia, more than half of adult women and men have attained that education level, and is the most common highest education level achieved for about 4 in 10 men and women in Latin America and the Caribbean, South-Eastern Asia and Western Asia. Twenty-two per cent (one in five) of women in sub-Saharan Africa on average have some secondary education, compared to 29 per cent of men. Secondary education is also the highest level of attainment for 26 per cent of women and 33 per cent of men in Southern Asia, whereas in Bangladesh, Maldives and Pakistan, the number is less than 25 per cent. These countries display a gender gap in the range of 3 to 21 percentage points, revealing moderate to severe educational disadvantages for women.

On average, 18 per cent of adult women and men globally have attained tertiary education. Tertiary education is most common in the developed regions, Eastern Asia and the Caucasus

and Central Asia, where more than one in five of men and women have attended or graduated from post-secondary education. Tertiary education is least common in sub-Saharan Africa and Southern Asia, where those who have attained post-secondary education constitute only a small minority of the population.

3. Adult education

UNESCO defines adult education as "education specifically targeting adults to improve their technical or professional qualifications, further develop their abilities, enrich their knowledge with the purpose to complete a level of formal education, or to acquire knowledge, skills and competencies in a new field or to refresh or update their knowledge in a particular field."[59] Adult education programmes are extremely diverse[60] and may differ in terms of objectives, focus, target groups, content, pedagogy and scale. In the more developed countries, adult education tends to be more focused on the enhancement of skills, while in the less developed countries the emphasis is more on literacy programmes and the completion of basic education. Providers are also very diverse, consisting of governments, non-governmental organizations, local communities and employers. Adult learning can play an important role in helping adult men and women to re-enter the labour market, and provide skills to meet the needs of a changing social and economic context, or new knowledge and skills to enhance employment opportunities, including self-employment and entrepreneurship. Adult learning can also contribute to non-economic goals, such as personal fulfilment, improved health, civic participation, social inclusion, volunteerism and traditional knowledge.

In most European Union countries, women participate slightly more than men in adult education

Available data[61] from a 2013 European Union (EU) survey[62] on adult lifelong learning involving 28 countries showed that the average participation rate in adult education and training among the 25 to 64 age group, regardless of the respondent's level of education, stood at 11 per cent for women and 10 per cent for men (figure 3.20). Those figures were only slightly higher than the corresponding figures for 2004. Participation in adult education and training varied considerably across countries. Denmark had the highest participation rate (27 per cent of women and 36 per cent of men), while at the opposite extreme, Bulgaria had only 2 per cent of women and men who were engaged in adult education. In most countries, women were more likely to participate in learning activities than men, except in Germany, Greece and Romania; however, the sex differential in participation rates in those countries was small.

Adults with already high levels of education participate in adult learning at a higher rate than those with lower educational attainment

The data show a strong positive relationship—consistent across countries—between participation in adult education and the level of educational attainment. Adults with already high levels of education participate at a higher rate, while those with lower levels participate at a lower rate (figure 3.20). There are a number of reasons to explain this. For one, demand for training might be higher among individuals with higher levels of education because they already have the skills that facilitate learning, and are more likely to be in jobs that demand ongoing training. Regardless of the educational level, in most countries,

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59 UNESCO Institute for Statistics, 2014a.

60 Adult education may encompass formal and non-formal education and training, including: continuing education; recurrent education; equivalency or second chance education; professional development; literacy and post-literacy programmes; adult basic education; ICT training; religious, cultural and political education; technical, vocational and entrepreneurship education and training; income-generation programmes; and other programmes focusing on life skills, livelihoods and community development.

61 Because of the large variation in adult learning programmes and the lack of a common understanding about which categories of learning activities should be included, this section is limited to statistics on participation in adult education only for those countries that take part in the annual European Union Labour Force Survey and those that participated in UNESCO's Regional Project for Education in Latin America and the Caribbean (PRELAC).

62 The European Union Labour Force Survey (LFS) provides annual results for the indicator "lifelong learning" (defined as the participation of people aged 25 to 64 in education and training) used for regular EU policy monitoring. The reference period for participation in education and training is the four weeks prior to the interview.

women's participation rates are higher than those of men. Gaps between women's and men's participation rates are significant in the group with tertiary education. For lower educational attainment levels, gaps between women and men are smaller or insignificant.

In Latin America and the Caribbean, women constitute the majority of participants in adult education programmes

In Latin America and the Caribbean, women constitute the majority of participants in adult education. However, participation and completion vary widely across countries. In 11 out of 13 countries with available data, the women's share exceeded that of men's in adult literacy programmes.[63] In the case of primary education for adults, a similar gender pattern is observed. Participation in lower and upper secondary education programmes for adults show stronger gender parity[64] in most countries with data. The proportion of women and men participating in lower secondary education is in the range of 45 to 55 per cent in 8 out of 16 countries with data. The corresponding figure is 10 out of 14 countries for upper secondary education. Where participation is out of the parity range, women tend to participate at a higher rate than men in both lower and upper secondary education.[65]

Figure 3.20

Adult education and training participation rates in 28 European Union countries by sex and level of educational attainment, 2004 and 2013
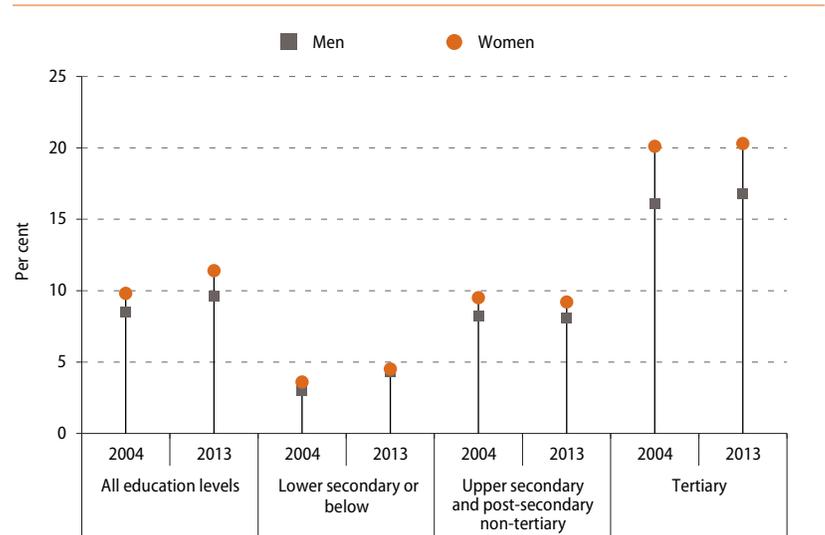
Source: EUROSTAT database, 2014. http://ec.europa.eu/eurostat/data/database (accessed 5 December 2014).
Note: The annual European Union Labour Force Survey collects statistics on lifelong learning for the population aged 25 to 64 years. The reference period for participation is four weeks prior to the survey.

63 Data based on UNESCO Institute for Statistics, 2014c. Data shown in the Statistical Annex. http://unstats. un.org/unsd/gender/worldswomen.html.
64 Gender parity is defined here as a share of between 45 and 55 per cent (inclusive) for each sex.
65 Data based on UNESCO Institute for Statistics, 2014c. Data shown in the Statistical Annex. http://unstats. un.org/unsd/gender/worldswomen.html.

Chapter 4

Work

Key findings

- Globally, about three quarters of men and half of women participate in the labour force; the gender gap in participation has narrowed in only some regions and remains widest in Northern Africa, Western Asia and Southern Asia.

- Since 1995, both young women and men (aged 15 to 24) have experienced a large decline in labour force participation. Women aged 25 or older, however, recorded an increase of participation in most regions.

- Women's unemployment rate remains higher than men's in most countries, and the differences remain substantial.

- Vulnerable employment—that is, own-account and contributing family work—constitutes half of women's and men's employment globally, but is most common in Africa and Asia, especially among women.

- Women predominate in the services sector of employment, especially in education, health and social work, and private households as employers.

- The occupational segregation of women and men continues to be deeply embedded in all regions.

- Women earn less than men across all sectors and occupations, with women working full-time earning between 70 and 90 per cent of what men earn in most countries.

- Women spend, on average, three hours more per day than men on unpaid work in developing countries and two hours more per day than men in developed countries; when all work—paid and unpaid—is considered, women work longer hours than men.

- Over half of countries offer at least 14 weeks maternity leave and the proportion has increased over the past 20 years.

- Paternity leave is becoming more common— 48 per cent of countries have provisions on paternity leave in 2013, compared to 27 per cent in 1994.

Introduction

Women constitute roughly half of the global population and thus, potentially, half of its work force. As a group, women do as much work as men, if not more. However, the types of work they do, as well as the conditions under which they work and their access to opportunities for advancement, differ from that of men. Women work less than men in the labour market but more within households on domestic activities. In the labour market, women are more disadvantaged than men: They are more likely to be unemployed; less likely to be employed as wage and salaried workers in most developing regions; and are more likely to work as contributing family workers who typically do not receive a monetary income. Their work is concentrated in sectors and occupations that tend to have low pay, is subject to long hours

and carries no social protections. Women are less likely to hold managerial positions, and earn less than men everywhere.

The Beijing Platform for Action identifies women's role in the economy as a critical area of concern, and calls attention to the need to promote and facilitate their equal access to employment and resources, improved employment conditions, as well as the harmonization of work and family responsibilities for women and men.[1]

Some progress has been made since 1995 in women's position in the labour market, as well as in the equal sharing of family responsibilities. Women aged 25 and older have increased their

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1 United Nations, 1995.

participation in the labour force in most regions. They are currently more likely than in the past to be employed as wage and salaried workers and less likely to be contributing family workers. Although women still do not earn as much as men, evidence from many developed countries has shown signs that the gender gap in pay is narrowing. More countries have adopted measures to

provide maternity leave to help strengthen women's attachment to the labour market. Measures are also being instituted to grant paternity leave, which helps to promote greater involvement of fathers in childcare and hence more equal sharing of family responsibilities. Indeed, the gender difference in the sharing of those responsibilities has narrowed over time.

Box 4.1
Gaps in gender statistics on work

Monitoring the status and progress of women and men in the area of work requires reliable and timely data on labour force and on time use. However, national capacity for producing these data is far from satisfactory.[a]

As shown in the following table, since 2005, slightly more than 60 per cent of countries provided data on labour force participation and unemployment by sex for at least two years. Half of the countries have employment data disag-

gregated by sex which are further disaggregated by status in employment and by occupation for at least two years; only 40 per cent have data on earnings by sex since 2005. When an additional two data points are required for an earlier period (1995–2004), the proportion of countries that have such data is lower, especially for data on earnings. The divide between developing and developed countries in terms of data availability is significant across all labour force indicators.

Proportion of countries that reported main labour force indicators by sex, developed and developing countries

	Labour force participation rate	Unemployment rate	Employment by status in employment	Employment by occupation	Earnings
At least 2 data points in 2005–2014					
All countries	64	64	55	50	39
Developing countries	53	53	42	37	30
Developed countries	100	98	98	93	70
At least 2 data points in 1995–2004 and 2005–2014					
All countries	59	60	47	44	17
Developing countries	49	51	34	31	13
Developed countries	93	89	89	89	28

a The assessment of national capacity to produce the necessary data for gender analysis carried out in this section is only based on national data that were either reported to the international statistical system or accessible in national reports and databases. The analysis described in the chapter, however, is based on both national data and international estimates.

Source: Statistics on labour force data availability were compiled by the United Nations Statistics Division, based on the International Labour Office, 2014a, ILOStat database and International Labour Office, 2014b, Key Indicators of the Labour Market, 8th edition (accessed January 2015).

The production of time-use statistics has been increasingly integrated into regular social statistics programmes in many countries. Since 2005, 75 countries (38 per cent) have collected time-use statistics through a time-use survey or have included a time-use module in a multipurpose household survey; time use statistics are available at the international level for 67 of them.

Even with regular surveys on labour force and time use, accurate measurement of women's work remains a challenge. Work activities such as

subsistence agriculture are often underestimated or excluded, for reasons such as limitation of data sources, gender-based stereotypes, and concepts and definitions adopted in data collection. "Work activities", which were re-defined by the International Conference of Labour Statisticians in 2013 to include all forms of work, including unpaid domestic and care work performed by women and girls in households, could help in better measuring and understanding the full range of work carried out by women (box 4.3).

A. Women and men in the labour force

1. Labour force participation

Globally, the gender gap in labour force participation remains very large

Globally, men are much more likely than women to participate in the labour force.[2] In 2015, 77 per cent of men and 50 per cent of women of working age were in the labour force (figure 4.1).[3] Women's labour force participation rate remained steady at 52 per cent from 1995 to 2006, declined to 50 per cent in 2010, and is projected to remain at that level in 2015. Labour force participation for men declined steadily from 80 per cent in 1995 to 77 per cent in 2010, and has remained unchanged. The gender gap in labour force participation narrowed only marginally over the past 20 years due to the slightly larger decline in men's labour force participation rate than that of women (for concepts related to the labour force, see box 4.2).

The gender gap in labour force participation has narrowed in most regions, but remains large

The labour force participation rates of women and men vary greatly across regions. In 2015, women's labour force participation rates were 30 per cent or lower in Northern Africa, Western Asia and Southern Asia and below 50 per cent in Southern Europe. In the other regions of the world, women's rates were between 50 and 70 per cent. In contrast, men's labour force participation rates ranged less widely, from 62 per cent in Southern Europe to 82 per cent in South-Eastern Asia (figure 4.2).

Trends in the labour force participation of women and men also varied markedly by region. Over the past two decades, all regions except Eastern and Southern Asia showed some increase in women's participation rates. The most notable increases were recorded in Latin America and the Caribbean and Southern Europe, where participation rates of women increased by 8 percentage points. In contrast, women's labour force participation decreased in Eastern and Southern Asia (figure 4.2), mainly due to patterns observed

Figure 4.1

Estimated and projected global labour force participation rate, persons aged 15+ years, by sex, 1995 to 2015

Source: ILO, Estimates and Projections of the Economically Active Population (EAPEP), 2013 edition (April 2014 update).
Note: 2014 and 2015 figures are projections.

in China and India where, between 1995 and 2013, women's participation in the labour force declined from 72 to 64 per cent and from 35 to 27 per cent, respectively.[4]

The labour force participation rates of men revealed different trends than those for women. They increased slightly in the Caucasus and Central Asia and in Oceania, remained unchanged in Eastern Europe, and declined in the other regions. The sharpest decline was recorded in Eastern Asia, where the participation rate fell by more than 6 percentage points (figure 4.2).

As a result, the difference between the labour force participation of women and men has narrowed in most regions. The largest decline was observed in Latin America and the Caribbean and Southern Europe. Yet, in no region was women's labour force participation rate equal to that of men. In Eastern Asia, Oceania, and sub-Saharan Africa women's participation in the labour force is the highest among all regions (around 65 per cent), but is still about 10 percentage points lower than men's (around 75 per cent). The regions with the largest gender gap, at over 50 percentage points in 2015, remained the same over the past two decades—Northern Africa, Western Asia and Southern Asia.

Labour force participation across age groups

Age patterns of labour force participation are shaped differently across regions and countries. Labour force participation of young women and men (aged 15 to 24) is generally low (figure 4.3)

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2 Labour force participation rate is calculated as the proportion of persons in the labour force—employed and unemployed—among working age population.

3 ILO, Estimates and Projections of the Economically Active Population (EAPEP), 2013 edition (April 2014 update). Data for 2014 and 2015 for the global level are projections.

4 International Labour Office, 2014b, table 1a (accessed December 2014). The regional aggregates for labour force participation rates are averages weighted by the population in individual countries.

Figure 4.2
Labour force participation rate, persons aged 15+ years, by sex and region, 1995 and 2015
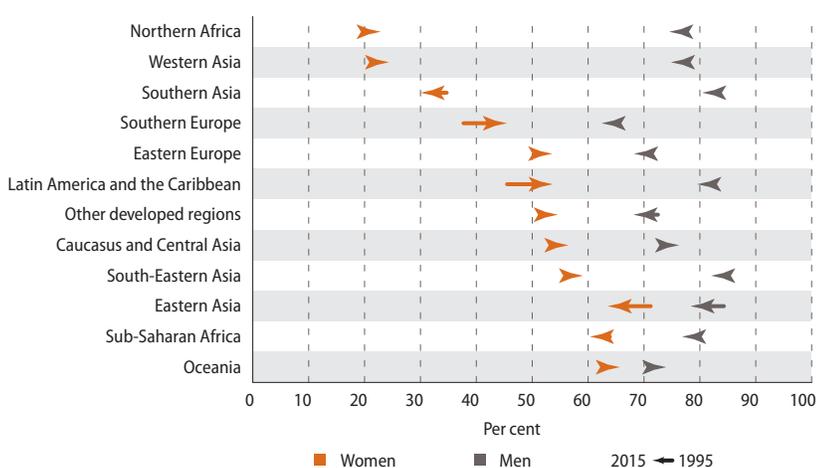
Source: ILO, Estimates and Projections of the Economically Active Population (EAPEP), 2013 edition (April 2014 update).
Note: Other developed regions include countries in Northern and Western Europe, as well as Australia, Canada, Japan, New Zealand, and the United States. 2015 figures are projections.

and reflects the availability and differential access to educational opportunities as well as the capacity of the labour market to integrate new cohorts of graduates. During prime working ages (25 to 54 years), labour force participation is typically the highest, indicating availability of opportunities for employment as well as differences in the roles and responsibilities of women and men in childbearing and caring. Finally, labour force participation among older workers (55 to 64 years and 65 years and over) is low and reflects existing retirement policies, access to social safety nets for older persons as well as attitudes towards retirement and staying actively engaged in later years.

The gender gap in labour force participation is considerable at all ages, except the young adult years

As shown in figure 4.3, women's labour force participation is lower than that of men at all stages of the life cycle. The narrowest gender gap is in the young adult years (ages 15 to 24), while the widest gap is generally during prime working ages (25 to 54 years). The gender gaps narrow slowly thereafter and tail off at the older ages without totally disappearing. Even after retirement age, men tend to stay more active than women. Northern Africa and Western and Southern Asia have the widest gender gap across all age groups. (figure 4.3).

Box 4.2
Definitions used in labour force, employment and unemployment statistics

The statistics presented in this chapter on the labour force, employment and unemployment are based on concepts and definitions laid out in the resolution adopted by the 13th International Conference of Labour Statisticians in 1982.

Accordingly: "Labour force" comprises all persons above a specified minimum age of either sex who furnish, or are available to furnish, the supply of labour for the production of goods and services included in the System of National Accounts (SNA) production boundary, during a specified time reference period, usually one week or one day. The SNA production boundary includes the production of goods and services for the market (for pay or profit); some types of non-market production (such as services provided by governments and nonprofit institutions); and own-account production of all goods that are retained by their producers for their own final use (production and processing of primary products for own consumption, such as subsistance agriculture, own-account construction and other production of fixed assets for own use). It excludes services produced by a household for its own use, such as cleaning, cooking, caring for houshold members and volunteer community services.

"Employed" comprises all persons above a specified age who, during the short reference period, either worked for pay or profit or contributed to a family business (farm and non-farm) without receiving any remuneration, or produced/processed products/goods for their own (or their family's) consumption.

"Unemployed" comprises all persons above a specified age, who, during a specified reference period:

- Did not have any work/job—that is, were not employed.
- Were currently available for work—that is, were available for paid employment or self-employment.
- Were seeking work—that is, had taken specific steps in a specified recent period to seek paid employment or self-employment (this condition is relaxed in situations where the conventional means of seeking employment are not relevant).

These international standards used by countries to produce their statistics on the labour force, employment and unemployment have been recently replaced. In October 2013, the 19th International Conference of Labour Statisticians adopted a resolution concerning statistics of work, employment and labour underutilitzation (see box 4.3 for more details). Activities to implement the new standards are currently under way in a number of countries, and updated data are expected in the coming years.

Source: Hussmanns, Mehran and Verma, 1990, chapters 2 and 3; ILO, 1982.

Figure 4.3

Labour force participation rates by age group and sex, 1995 and 2013

15–24   25–34   35–54   55–64   65+

- - - 1995 Men
——— 2013 Men
- - - 1995 Women
——— 2013 Women
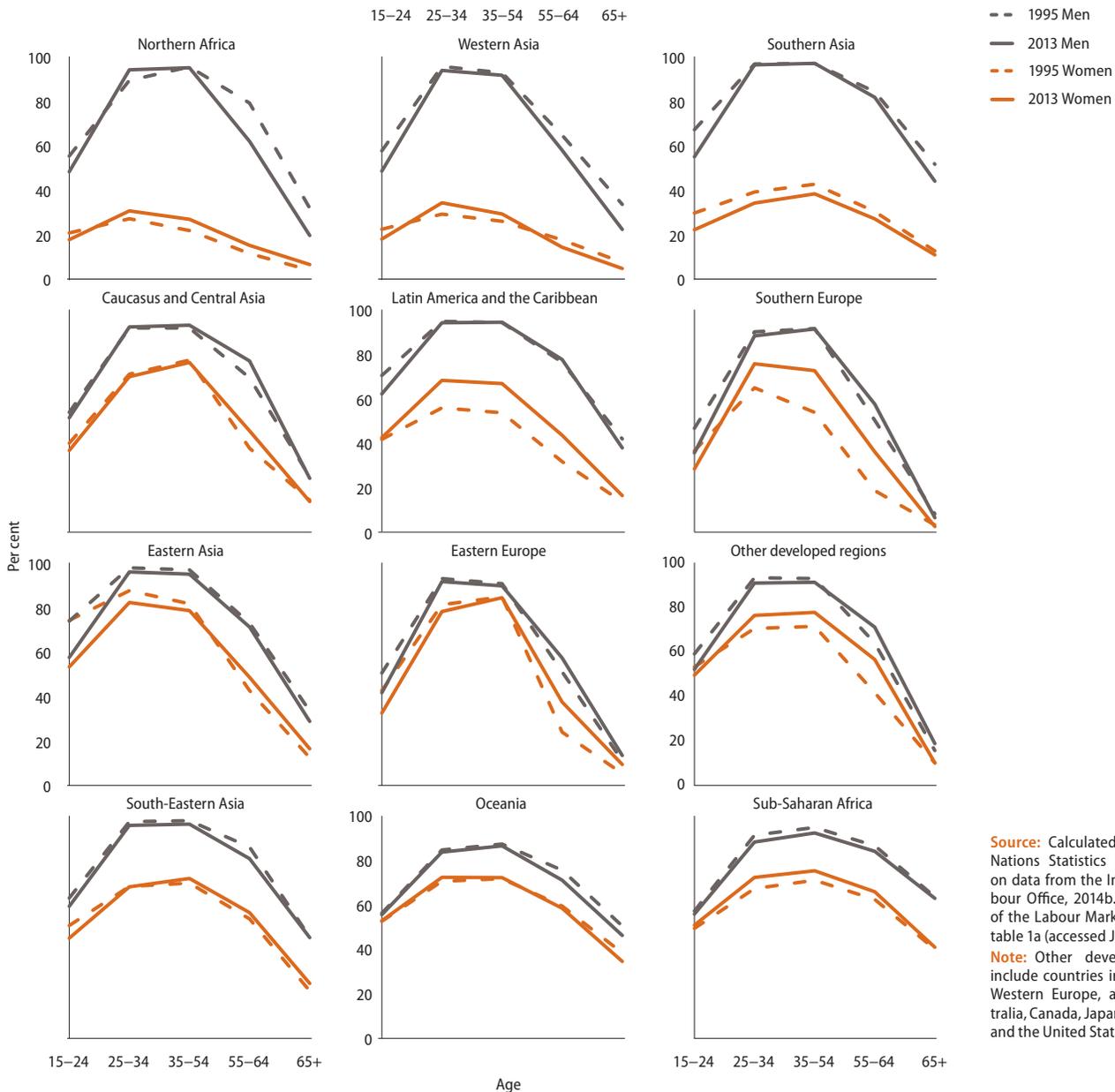
Source: Calculated by the United Nations Statistics Division based on data from the International Labour Office, 2014b. Key Indicators of the Labour Market, 8th edition, table 1a (accessed January 2015).

Note: Other developed regions include countries in Northern and Western Europe, as well as Australia, Canada, Japan, New Zealand, and the United States.

Young women and men (aged 15 to 24) are entering the labour market later

Labour force participation among young women and men (aged 15 to 24) is generally low, as many of them are still pursuing education at upper secondary or tertiary levels. Currently, Northern Africa and Western Asia remain the regions with the lowest labour force participation rate of young women, at around 18 per cent. Young women in Eastern Europe, Southern Asia, Southern Europe and the Caucasus and Central Asia participate at a level of between 20 and 40 per cent. In the other regions, the participation of young women ranges from 40 to 53 per cent (figure 4.3). For young men, Southern Europe has the lowest labour force participation rate (36 per cent), followed by Eastern Europe, Northern Africa and Western Asia, where the rate is between 40 and 50 per cent. The rate among young men in other regions is above 50 per cent, with the highest rate recorded in Latin America and the Caribbean (62 per cent).

For most regions, labour force participation rates for women and men aged 15 to 24 have declined since 1995, contributing to the slight decline in the overall global rate. For young adults, the decline may be linked to either expanding educational opportunities for young women and men[5] or a growing proportion of young people who are neither pursing education nor engaged in employment and are not seeking and available for work. The largest decline for young women occurred in Eastern Asia, with a decline of 21 percentage points. Young women in Eastern and Southern Europe also registered a 10-percentage-point decline in labour force participation. For young men, the most notable decrease was recorded in Eastern Asia, with a 16 percentage points decrease, followed by Southern Asia and Southern Europe, where labour force participation of young men declined by at least 10 percentage points.

In most regions, a higher proportion of women aged 25 to 54 are participating in the labour force than in the past

Women and men reach their peak in labour force participation between the ages of 25 and 54. In most regions, the participation rate for women aged 25 to 54 ranged between 65 and 85 per cent in 2013. Women in Northern Africa, and Western and Southern Asia, however, participated at a much lower rate—around 30 per cent. For men of that age group, the rate is above 80 per cent in all regions (figure 4.3).

Between 1995 and 2013, labour force participation rates for women and men in their prime working ages showed different trends. For men, participation rates remained constant or declined slightly over the past two decades across most regions. By comparison, women experienced an increase in labour force participation in many regions except Eastern and Southern Asia and Eastern Europe and the Caucasus and Central Asia (showing a slight decrease) (figure 4.3). A large increase in women's participation was observed in Latin America and the Caribbean and Southern Europe (10 percentage points or more). In Latin America and the Caribbean, the increase seems to be associated with additional education and changes in family formation—that is, later marriage and lower fertility levels,[6] while in Southern Europe, it may be related to changes in attitudes towards women's participation in the

labour market in countries with traditionally low women's participation, and to labour market reforms aimed at improving work flexibility and increasing fiscal/tax benefits for working women.[7]

In contrast, a notable decline in labour force participation was observed for women aged 25 to 54 in Southern and Eastern Asia from 1995 to 2013 (figure 4.3), dominated by declines in India and China. In India, where women lack job opportunities because of occupational segregation, job growth disproportionately benefited men. That, along with a change in the measurement methodology between survey rounds and, to a lesser extent, an increase in household incomes that reduced the need for women from wealthy families to work, have contributed to the decline.[8]

In the case of China, significantly fewer government-sponsored childcare facilities may have contributed to the decline in women's labour force participation rate. The proportion of more affordable state-owned and community-based childcare centres decreased from 86 per cent in 1997 to 34 per cent in 2009.[9] Studies also showed that the restructuring of the state-owned sector of the economy in the late 1990s resulted in large layoffs and early retirement for urban workers, affecting women and older workers disproportionately.[10]

Older women workers currently remain longer in the labour market

Between the ages of 55 and 64, both women and men participate in the labour force at a much lower level compared to those aged 25 to 54. In 2013, the participation rate of women aged 55 to 64 was the lowest in Northern Africa and Western Asia (15 per cent), followed by Southern Asia at 27 per cent. The highest participation rate for women in this age group was in sub-Saharan Africa (66 per cent), followed by a slightly lower rate (57 to 59 per cent) in Oceania, South-Eastern Asia and the developed regions except Eastern and Southern Europe. In other regions, labour force participation for women aged 55 to 64 ranged from 36 to 50 per cent. The rates for men aged 55 to 64 ranged from 55 to 85 per cent, with the highest levels recorded in Southern Asia, South-Eastern Asia and sub-Saharan Africa, at above 80 per cent.

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5   International Labour Office, 2008a.
6   Chioda, Garcia-Verdú and Muñoz Boudet, 2011.

7   Cipollone, Patacchini and Vallanti, 2013.
8   Kapsos, Silberman and Bourmpoula, 2014.
9   China Ministry of Education, 2014; Du and Dong, 2013.
10 Giles, Park and Cai, 2006.

In all regions, except Oceania, Southern and Western Asia, labour force participation increased for older women during the period 1995–2013. The largest increase was recorded in Eastern Europe, Southern Europe and the other developed regions, as well as in Latin America and the Caribbean (figure 4.3). The prolonged time people remain in the labour market in more recent years can be attributed in part to changes in national policies on retirement and pension systems.[11]

National policies encouraging longer working lives for both women and men at older ages, through higher statutory retirement ages and pension reforms, have been in place in many developed countries. This has been reflected in upward trends in the effective retirement age[12] since the mid-1990s among Organisation for Economic Co-operation and Development (OECD) member States and non-OECD European Union (EU) countries.[13] It is also noteworthy that the trend of raising the statutory retirement age, which affects women more than men, will eventually lead to a higher and equal retirement age for both sexes. Among the 25 European countries with plans for a statutory retirement age, 14 had unequal legal retirement ages in 2012 and this number is expected to be reduced to 8 by 2030.[14]

From 1995 to 2013, labour force participation for men aged 55 to 64 decreased in 7 out of 12 regions, with the largest decrease observed in Northern Africa, where the participation for male workers in that age group declined from 79 per cent to 62 per cent (figure 4.3). The decline was registered in a number of countries in the region, including Algeria, Egypt, Morocco and Tunisia. Egypt, however, recorded the largest decline in older men's labour force participation (a drop of 23 percentage points, from 88 per cent in 1995 to 65 per cent in 2013).[15] Such a drop in participation could be associated with the implementation of the Economic Reform and Structural Adjustment Programme in Egypt that aimed to downsize public sector employment by encouraging early retirement of public sector employees.[16]

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[11] International Labour Office, 2001; Council of Europe, 2012; OECD, 2013a.

[12] The effective age of retirement is defined as the average age of exit from the labour force during a five-year period. A more in-depth explanation can be found in OECD, 2013a.

[13] OECD, 2013a.

[14] Council of Europe, 2012.

[15] International Labour Office, 2014b, table 1a (accessed January 2015).

[16] Selwaness, 2009. The programme became fully functional in 1996.

Women and men remain active after retirement age

The participation of women and men in the labour force further declines after they reach age 65, although a certain percentage of both sexes remain active. In 2013, women in sub-Saharan Africa were more likely to remain in the labour force after age 65 (41 per cent) compared to women in other regions, due to their heavy participation in subsistence agriculture. In South-Eastern Asia and Oceania, 25 per cent and 35 per cent of women aged 65 or over, respectively, participated in the labour force. In the other regions, the participation rate for women in that age group was below 20 per cent (figure 4.3). In most regions, the labour force participation for men aged 65 and older ranged from 20 to 50 per cent. The exceptions include Eastern Europe, Southern Europe, and other developed regions, where men at that age participated less (less than 20 per cent), and sub-Saharan Africa, where men participated at a much higher level (63 per cent).

For women aged 65 and over, changes in labour force participation between 1995 and 2013 were smaller in all regions. The participation of men in this age group has also been stable over time in most regions, except in Northern Africa and Western Asia, where it declined by more than 10 percentage points.

2. Unemployment

Total unemployment

Women's unemployment rates remain higher than men's in most countries

Unemployment rates[17] in many countries around the world clustered under 10 per cent for both women and men aged 15 and above in 2013 (figure 4.4). For most countries (121 out of 177 countries with data), the unemployment rate for women was higher than that for men. In particular, women in Northern Africa and Western Asia experienced much higher unemployment rates than men. Out of 11 countries where women's unemployment rates were at least 10 percentage points higher than men's, 7 were from Northern Africa and Western Asia. A number of countries (52) recorded lower unemployment rates for women than for men, but only by a small degree.

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[17] Percentage of people in the labour force who are unemployed.

The highest unemployment rates of women were found in many countries in Northern Africa and Western Asia, Southern Europe, and in sub-Saharan Africa; for men, unemployment was highest in many countries in Southern Europe and in selected countries in sub-Saharan Africa.

Figure 4.4
Unemployment rates of women and men, aged 15+ years, 2013
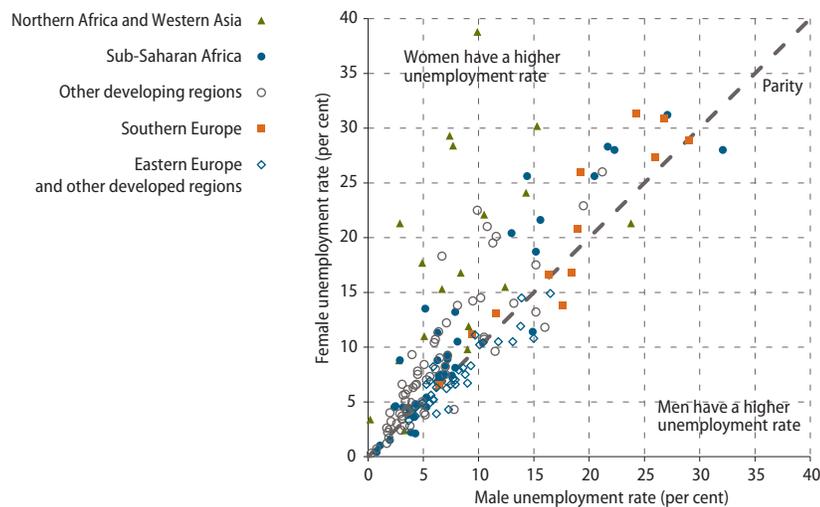
Legend:
- Northern Africa and Western Asia ▲
- Sub-Saharan Africa ●
- Other developing regions ○
- Southern Europe ■
- Eastern Europe and other developed regions ◇

Chart labels: Female unemployment rate (per cent); Male unemployment rate (per cent); "Women have a higher unemployment rate"; "Parity"; "Men have a higher unemployment rate"

Source: Compiled by the United Nations Statistics Division based on data from the International Labour Office, 2014b. Key Indicators of the Labour Market, 8th edition, table 9a (accessed October 2014).
Note: Other developing regions include countries in Eastern Asia, Latin America and the Caribbean, Oceania, South-Eastern Asia , Southern Asia and the Caucasus and Central Asia. Other developed regions include countries in Northern and Western Europe, as well as Australia, Canada, Japan, New Zealand, and the United States.

In terms of trends, since 1995, the gender gap in unemployment has remained relatively constant in all regions, with the exception of Southern Europe and Western Asia. The increase in Western Asia (from 4 to 9 percentage points) was due to a larger increase in the unemployment rate for women than for men, while Southern Europe experienced the opposite trend, a decreased gender gap (from 7 to 4 percentage points) due to a higher increase in unemployment among men.[18]

Youth unemployment

Unemployment is highest among young women and men

In all regions, unemployment is more prevalent among young persons aged 15 to 24 than among adults aged 25 and older. Higher unemployment among young people, especially women, can be attributed to several factors, including the lack

of needed work skills due to limited job experience and a mismatch between young women and men's skill supply and labour market demand.[19] In many countries, the gains in education have outpaced economic development and the demands of the labour market. Women are particularly susceptible to skills mismatch due to the fields of study they favour, such as education and humanities and arts (see Chapter 3 on Education). Finally, in countries where public sector jobs are associated with higher social status, stability and even better pay, young women and men may choose to be unemployed until a public sector job is available.[20]

In 2015, unemployment rates for young women and young men were twice or even three times higher than for adults in the majority of the regions analysed (figure 4.5). The Caribbean, Northern Africa, Southern Europe, and Western Asia have the highest unemployment rates for young people and some of the largest disparities between them and other adult workers.

The difference between the youth and adult unemployment rate has been relatively stable over the past 20 years in most regions.[21] A few exceptions, however, stand out. From 1995 to 2015, the unemployment rate among young women rose, for example, from 45 per cent to 54 per cent in Northern Africa, and from 22 per cent to 36 per cent in Western Asia. Changes in the past 20 years in adult women's unemployment rates in both regions, however, have been small. During the same period, in Southern Europe, young men experienced a 12-percentage-point increase in the unemployment rate (from 30 per cent to 42 per cent), compared to an increase of 7 percentage points among adult men. Such increase, for both youth and adult men in the region, occurred only after 2007 and may be linked to the recent economic and financial crisis.[22]

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18 Analysis conducted by the United Nations Statistics Division based on the ILO, Estimates and Projections of the Economically Active Population (EAPEP), 2013 edition (April 2014 update).

19 International Labour Office, 2008a; International Labour Office, 2013a.

20 International Labour Office, 2008a.

21 Analysis conducted by the United Nations Statistics Division based on the ILO, Estimates and Projections of the Economically Active Population (EAPEP), 2013 edition (April 2014 update).

22 A recent study has shown that the unemployment of both adult and youth has been affected by the economic and financial crisis, and youth in many countries have been affected disproportionally (O'Higgins, 2010).

Figure 4.5
Unemployment rates of adults (*aged 25+ years*) **and youth** (*aged 15 to 24 years*)**, by region and sex, 2015**
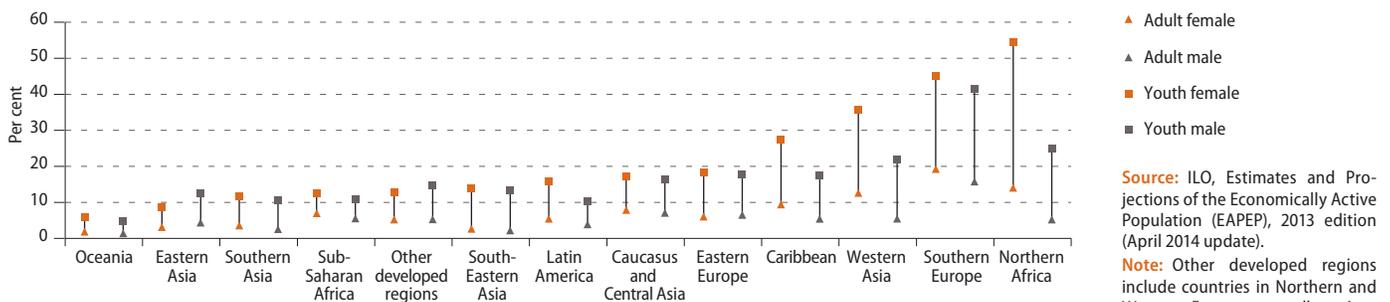
Legend:
- ▲ Adult female
- ▲ Adult male
- ■ Youth female
- ■ Youth male

Unemployment rates are higher for young women than young men in most regions

In 2015, young women are more likely to be unemployed than young men in all regions except Eastern Asia and developed regions other than Eastern and Southern Europe, where youth unemployment among women is slightly lower than that for men. At the other end of the spectrum, high gender differentials are found in Northern Africa (where 54 per cent of young women are unemployed compared to 25 per cent of young men), Western Asia (36 per cent of young women versus 22 per cent of young men), and the Caribbean (27 per cent of young women versus 17 per cent of young men). In contrast, the unemployment rates for young women and men in Southern Europe are roughly the same, though both are still high, at above 40 per cent (figure 4.5).

Box 4.3
New standards for measuring work, employment and labour underutilization

The resolution concerning statistics of work, employment and labour underutilization, adopted by the 19th International Conference of Labour Statisticians in 2013, provides new standards to be used by countries to produce statistics on the labour force, employment, unemployment and underemployment.

The new standards introduce a number of important revisions that redefine the way the work of women and men is to be captured and reflected in official statistics. These revisions aim to support the comprehensive but separate measurement of all forms of work—both paid and unpaid. Among the most important revisions are the introduction of:

- The first international statistical definition of **work**, aligned with the SNA general production boundary. The new definition recognizes all productive activities, including unpaid household services provided by household members or by volunteers, as work.

- A refined concept and measure of **employment** that refers to "work for pay or profit". This will support more targeted monitoring of participation in remunerated work needed to inform labour market policies aimed at promoting job creation and reducing gender disparities in access to remunerated work opportunities.

- A new concept and measure of **own-use production work,** comprising production of goods and provision of services for final use by the household or family. This will support the valuation of their common contribution to household material welfare, household income and well-being. At the same time, it will enable an assessment of gender and age differences in the allocation of labour within the household.

- A new concept and measure of **volunteer work** covering non-compulsory work performed without pay for others. This will support the measurement of organization-based volunteering and direct volunteering to households, resulting in more comprehensive assessments of their prevalence and contributions to social cohesion, well-being and national production.

- A set of measures of labour underutilization beyond the traditional measurement of unemployment. This will encourage wider monitoring of situations of unmet need for employment due to insufficient working time among the employed, and to the lack of access to remunerated work among those outside the labour force, including due to labour market conditions as well as to social and cultural barriers to employment.

- Finally, the terms "economically active population" and "economically inactive population" were replaced by more neutral terms—"labour force" and "persons outside the labour force". This recognizes that persons outside the labour force may be engaged in other forms of work, particularly in own-use provision of services that also contribute to production and economic growth.

These new concepts are expected to be especially relevant in countries and areas where subsistence activities are widespread, where labour markets are of limited scope and where labour absorption is at times insufficient. They will also be relevant for groups predominantly engaged in forms of work that are unpaid, especially women, youth and workers in rural areas.

B. Employment conditions of women and men

1. Economic sector of employment

For both women and men, employment in agriculture continues to decline while employment in the services sector keeps growing

Globally, the services sector is currently the largest source of employment for both women and men. In 2015, 52 per cent of employed women and 43 per cent of employed men were engaged in this sector. By comparison, in 1995, agriculture was the main source of employment for both sexes and in particular for women. Globally, the transition from agriculture to services occurred in 2000 for women and in 2004 for men (figure 4.6).

Over the past 20 years, agriculture has declined in importance as a source of employment, more so for women than for men. In fact, the difference between women's and men's share of employment in this sector has disappeared (from 44 per cent for women and 41 per cent for men in 1995 to 30 per cent for both in 2015). The sector of employment with the fewest women and men is industry. The proportion of employed persons working in this sector remained stable from 1995 to 2005, at around 16 per cent for women and 25 per cent for men. After 2005, both women and men experienced a slight increase in employment in the industry sector, reaching 18 per cent of employed women and 27 per cent of employed men in 2015 (figure 4.6).

Figure 4.6
Distribution of employed persons by economic sector of employment, by sex, 1995 to 2015
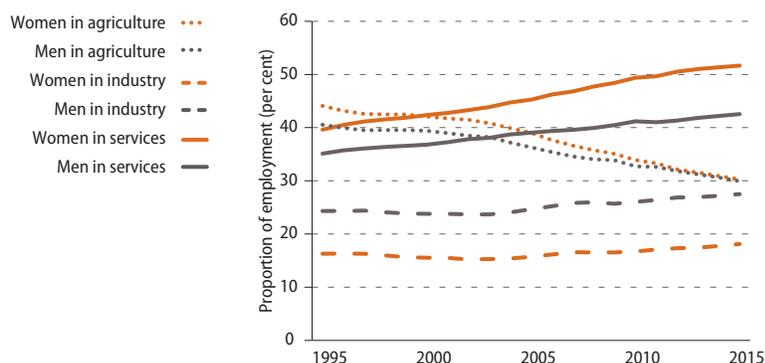
Women in agriculture
Men in agriculture
Women in industry
Men in industry
Women in services
Men in services

Women work predominantly in the services sector, while men tend to be more spread out across the three economic sectors

In four regions—Latin America and the Caribbean, Eastern Europe, Southern Europe and other developed regions—more than 70 per cent of employed women work in the services sector in 2015. In those regions, men's employment in the services sector, while relatively high compared to agriculture and industry, is at least 20 percentage points lower than that of women. Southern Asia and, to a lesser extent, Oceania, are the only regions where the services sector is a more important source of employment for men than for women (36 per cent versus 20 per cent for men and women, respectively, in Southern Asia, and 33 per cent and 30 per cent for men and women, respectively, in Oceania) (figure 4.7).

Agriculture remains the largest sector for women's employment in three regions—Oceania, Southern Asia and sub-Saharan Africa—with around 60 per cent of women employed in it. In Oceania and sub-Saharan Africa, agriculture is also the primary source of employment—for around 60 per cent of men (figure 4.7). The diminishing gender gap in agricultural employment at the global level masks differences across regions. In six out of 12 regions –Northern Africa, Oceania, Southern Asia, sub-Saharan Africa, the Caucasus and Central Asia and Western Asia—women are more likely than men to be working in the agriculture sector. One region—South-Eastern Asia—shows no gender difference in the percentage of women and men working in agriculture (37 per cent for both). In the other regions—Eastern Asia, Latin America and the Caribbean, Eastern Europe, Southern Europe and other developed regions—men are more likely to be working in agriculture than women.

In 2015, between 20 and 40 per cent of male employment was in the industrial sector in most regions, with the exception of sub-Saharan Africa and Oceania. Among women, the share engaged in industry is under 20 per cent in most regions except Eastern Asia (30 per cent) and Southern Asia (21 per cent). In all regions, men are more likely to work in the industrial sector than women, with a gender difference ranging from 3 percentage points in Oceania to 22 percentage points in Eastern Europe, which is also the region with the highest share of men working in this sector (around 40 per cent).

Figure 4.7
Distribution of employed persons by economic sector of employment, by sex and region, 2015

Legend:
- Services
- Industry
- Agriculture

Source: ILO, Estimates and Projections of the Economically Active Population (EAPEP), 2013 edition (April 2014 update).
Note: Other developed regions include countries in Northern and Western Europe, as well as Australia, Canada, Japan, New Zealand, and the United States. 2015 figures are projections.
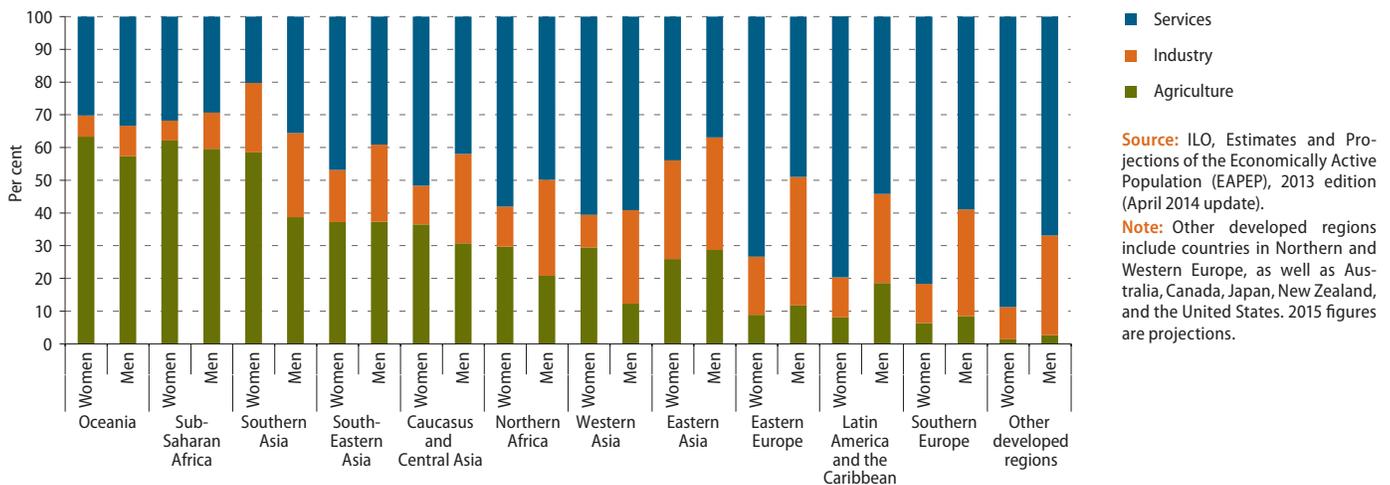
Share of women in sub-categories of the services sector

Women dominate in three services subsectors: education, health and social work, and private household as employers

As more jobs for women gradually move into services, the share of women in the services sector has surpassed their share in total employment. In 2015, women's share among people employed was 40 per cent globally, and 44 per cent among those employed in the services sector. The representation of women in the services sector increased slightly by 2 percentage points, from 42 per cent in 1995, but their share in total employment remained unchanged in the 20 years since. Meanwhile, the share of women in agriculture during those 20 years declined by 2 percentage points.[23]

Within the services sector, women are the majority of workers in specific subcategories (figure 4.8). Among 24 developing countries[24] with recent data available, the average women's share is above 50 per cent (or women "dominate") in three services subsectors, in the order of importance: private households as employers, education, and health and social work. In the category "private households as employers", mainly consisting of paid domestic workers providing services to private households, women dominate in most of the countries in developing regions

for which data are available and on average they represent 73 per cent of workers in this subsector of employment.[25] The exceptions are Egypt and Yemen, where the female share in this category is around 20 per cent.[26] Yemen, among all 24 developing countries, also has the lowest female share of workers in education and health and social work, two subsectors that are usually dominated by women in other developing countries. In Yemen, more than 50 per cent of employed women are in services overall, although within each service subsector, women's share is much lower than that of men, due to the extremely low percentage of working women (only 15 per cent of women 15 and over were employed in 2012 compared to 65 per cent of men of the same age).

For 36 countries in developed regions with available data, private households as employers, health and social work, and education are also the top three subsectors, in the order of importance, dominated by women (figure 4.8). However, less variation is observed among countries in developed regions, especially with respect to the health and social work and education subsectors, where women outnumber men in all countries considered. In addition, on average the financial and insurance and hotels and restaurants subsectors are also the source of employment for a slightly higher number of women than men. With respect to the "private households as employers" sector, the average women's

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23 ILO, Estimates and Projections of the Economically Active Population (EAPEP), 2013 edition (April 2014 update).

24 The 24 countries are in Eastern Asia (2), Latin America and the Caribbean (4), Northern Africa (2), Oceania (2), South-Eastern Asia (6), sub-Saharan Africa (2), the Caucasus and Central Asia (2) and Western Asia (4).

25 Globally in 2010, 83 per cent of domestic workers were women. ILO, 2013c.

26 Country level data obtained from the International Labour Office, 2014b, table 2a (accessed August 2015).

share among workers in this category in developed countries with data is 83 per cent and all countries except New Zealand (38 per cent) have a higher share of women than men.

Services that tend to have low pay, long hours and no social protection are more likely to be provided by women than men.[27] These unfavourable employment conditions are particularly prevalent for workers in the category "private households as employers". Such workers include maids, cooks, waiters, valets, butlers, laundresses, gardeners, gatekeepers, stable hands, chauffeurs, caretakers, babysitters, tutors and secretaries, among others,[28] and are usually referred to as paid domestic workers. They tend to work long hours per week, with no entitlement to a weekly rest period or paid annual leave, receive very low wages and have less access than other workers to social security schemes and measures to ensure occupational safety and health.[29]

Men in both developing and developed countries tend to dominate in other subsectors within the services sector, such as transportation and storage, administrative and support services, information and communication, and real estate.

2. Occupational segregation

Women and men tend to work in different occupations (horizontal segregation) and in different positions within the same occupation or occupational group (vertical segregation). The segregation of women and men in different occupations is closely associated with gender roles or stereotypes about women (for example, that they are caring or home-based). Gender-based occupational segregation also reflects the difference between women and men in terms of their choice of education and vocational training (see Chapter 2 on Education). Occupational segregation can negatively affect the flexibility of the labour market[30] and the economy as a whole. It also has direct negative effects on women in particular, partly because women's employment is concentrated in a more limited number of occupations than that of men.[31] Such concentration imposes more restrictions on women than on men in terms of what types of jobs they can undertake. Occupational segregation, both horizontal and vertical, also contributes greatly to the pay differentials between women and men (see section in this chapter on the gender pay gap).

Figure 4.8
Share of women in subcategories of the services sector, 2008–2012 (*latest available*)
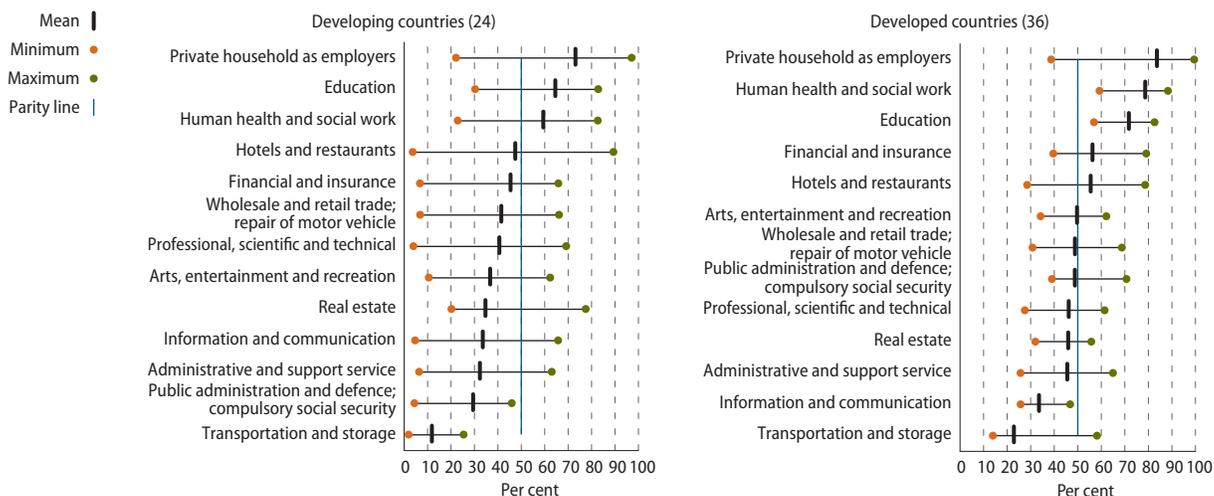
Source: International Labour Office, 2014b. Key Indicators of the Labour Market, 8th edition, table 2a (accessed May 2014). Data limited to countries that have adopted the ISIC-4 classification.
Note: The numbers in brackets indicate the number of countries with available data. The 24 developing countries are: in Caucasus and Central Asia (2), Eastern Asia (2), Latin America and the Caribbean (4), Northern Africa (2), Oceania (2), South-Eastern Asia (6), sub-Saharan Africa (2) and Western Asia (4).

27   International Labour Office, 2010.
28   United Nations, 2008.
29   International Labour Office, 2013c.

30   Segregation causes labour market inflexibility because it constrains mobility between male and female occupations. When a firm needs a large group of new workers for an industry that is clearly male- or female-dominated, it may not find a sufficient number of qualified candidates for the posts. Source: Melkas and Anker, 1997.
31   A study covering 41 countries showed that there are seven times more male-dominated occupations than female-dominated occupations—defined as an occupation in which either men or women, respectively, comprise at least 80 per cent of workers. United Nations, 2000.

Figure 4.9
Share of women in nine occupational groups, 2008–2012 (*latest available*)

Developing countries (40)

Developed countries (42)

| Mean
• Minimum
• Maximum
| Average share of women in total employment among countries with data
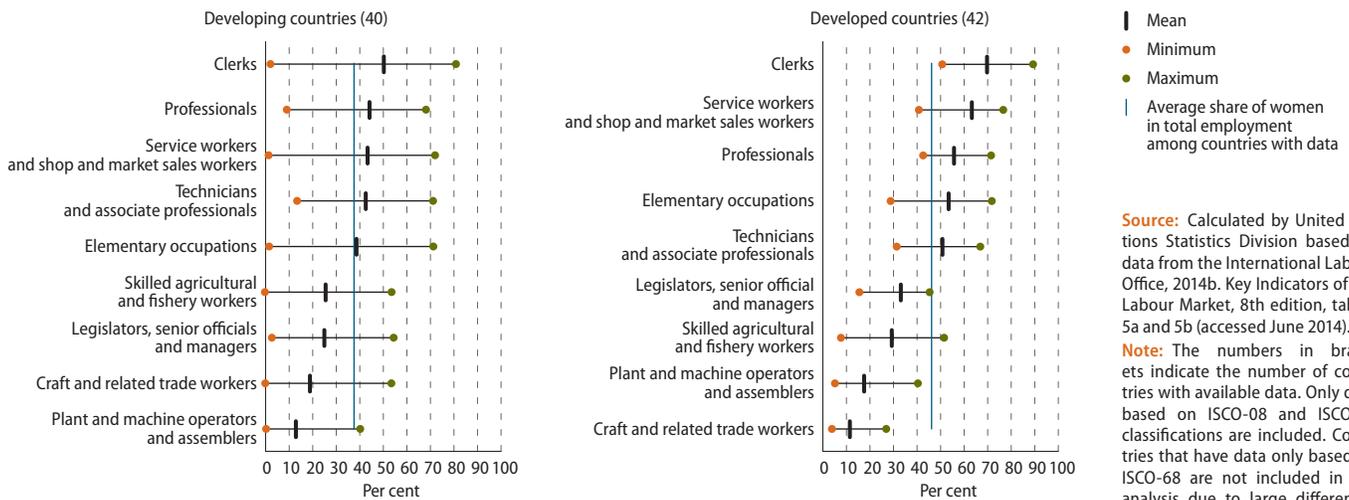
Differences between women and men in terms of the distribution of their employment by occupation or type of job performed[32] can be observed in some regions. In Eastern Asia, Latin America and the Caribbean, Southern Europe and other developed regions, women predominantly work as services and sales workers, while men tend to be craft and trade workers. For regions that are heavily agricultural such as Oceania, Southern Asia and South-Eastern Asia, both women and men tend to work as skilled agricultural and fishery workers. In sub-Saharan Africa, also dominated by a large agricultural sector, men are most likely to be employed as skilled agriculture and fishery workers, while women mostly work in "elementary" occupations, such as unskilled labourers in agriculture, fisheries or mining or in refuse collection, cleaning or food preparation industries. This pattern of women working in elementary occupations and men in skilled ones also applies to women and men in the Caucasus and Central Asia and Eastern Europe.[33]

Gender segregation in various occupations persist in all regions

Women are highly represented and even outnumber men among certain occupational groups, based on available data. In 40 developing countries for which data were available for the period 2008–2012, the average share of women was the highest among clerks (50 per cent), followed closely by professionals (44 per cent), service workers and shop and market sales workers (43 per cent), and technicians and associated professionals (42 per cent). Although women did not outnumber men in the same occupation, their representation in all of the above occupational groups exceeded their share in total employment, which was, on average, 37 per cent among the 40 developing countries with data. However, large variations were found among those countries (figure 4.9). Countries in Northern Africa, Southern Asia and Western Asia tended to have lower shares of women in each occupational group compared to countries in other regions, due to the very low share of women in employment overall (see Statistical Annex for data by regions).[34]

Over the period 2008–2012, relative to their overall share in total employment (46 per cent), women in 42 developed countries were also highly represented and outnumbered men among clerks (70 per cent), service workers and shop and market sales workers (63 per cent), professionals (56 per cent), elementary occupations

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32 ISCO-08 (and ISCO-88) major groups, ILO, 2008b and 1988.

33 Regional aggregates compiled by the United Nations Statistics Division based on data from the International Labour Office, 2014b, tables 5a and 5b (accessed June 2014). Unweighted averages are used; only data based on ISCO-08 and ISCO-88 classification are included. Countries that have data based only on ISCO-68 are not included in the analysis due to large differences between ISCO-68 and later classifications (ISCO-88 and ISCO-08). They include Bahrain, Chile, Colombia, Cuba and Japan.

34 Available at http://unstats.un.org/unsd/gender/worlds-women.html.

(53 per cent) and technicians and associated professionals (51 per cent) (figure 4.9).

In both developing and developed countries, women were significantly underrepresented among the following occupations: plant and machine operators and assemblers; craft and related trade workers; legislators, senior officials and managers; and skilled agricultural and fishery workers. Women's underrepresentation as legislators, senior officials and managers, demonstrates the inequality in participation of women and men in decision-making processes and access to power. Studies based on detailed occupations within this group show that women are even less represented in occupations with the highest degree of power and influence (such as directors and chief executive officers), and that this phenomenon is true across all regions, all cultures and all levels of economic and social development.[35] In the United Kingdom, for example, 34 per cent of legislative or managerial positions were held by women in 2014, while only 17 per cent of chief executives and senior officials were women[36] (see also Chapter 5 on Power and decision-making).

Box 4.4
Occupational segregation: A more in-depth look

The following two country examples illustrate sharp differences in the representation of women in subcategories of various occupations.

In 2014, "professional jobs", as a group of occupations, were equally shared between women and men in the United Kingdom. However, an analysis of data at detailed levels of occupations in that country reveals that women are more concentrated in certain types of professional jobs than others. For example, 89 per cent of nurses and midwives were women compared to only 7 per cent of engineers. Among teaching professionals, women represented 88 per cent of primary and nursery school teachers but only 47 per cent of higher education teaching professionals (see also Chapter 3 on Education). For health-care professionals, women tend to dominate occupations such as medical radiologists, psychologists, podiatrists, pharmacists and veterinarians, in contrast to occupations such as dentists.

In Liberia, women's share among agricultural, forestry and fishery labourers (53 per cent) is much higher than their share among market-oriented skilled agricultural workers (43 per cent) and market-oriented skilled forestry and fisheries workers (15 per cent). Women outnumber men in unskilled elementary occupations (share of women is 58 per cent), and even more so as cleaners and helpers (63 per cent) and as refuse workers and other elementary occupations (79 per cent).

Women's share of employment in selected subcategories of professionals, United Kingdom, 2014

Women's share of employment in skilled agricultural/fishery and elementary occupations, Liberia, 2014
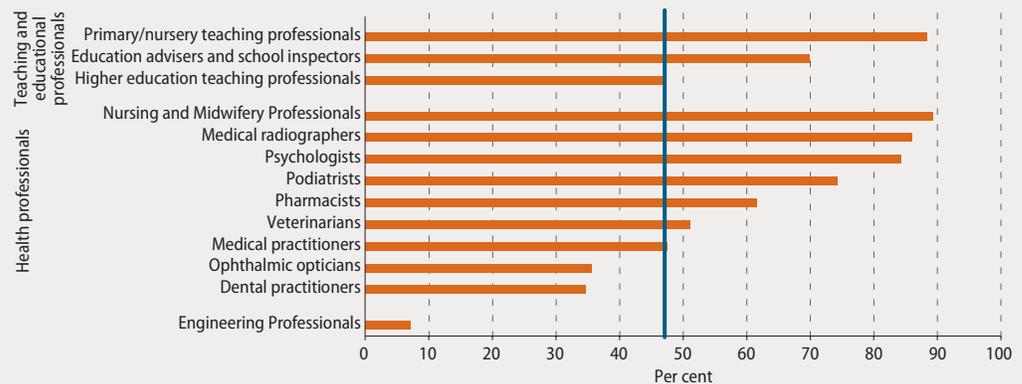
Source: Compiled by the United Nations Statistics Division based on data from the United Kingdom, Office for National Statistics, 2014, and the Liberia Institute of Statistics and Geo-Information Services, 2011, Report on the Liberia Labour Force Survey 2010. Women's share of total employment is 46 per cent in the United Kingdom and 50 per cent in Liberia, as highlighted by the blue line.

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[35] Anker, 2005.
[36] United Kingdom, Office for National Statistics, 2014.

Major groups of occupations should be analysed in more detail to fully understand the depth of occupational segregation and better distinguish between male- and female-dominated occupations. The group "professionals", for example, is dominated by women (more women than men work in this occupation) in both developing and developed countries. However, it includes sub-categories such as "health" and "teaching professionals", which are more likely to be dominated by women, as well as "science and engineering professionals" and "information and communication technology professionals", which are more likely to be dominated by men. Furthermore, based on data for EU member States, it appears that while teaching professionals, nursery care workers and pre-primary school teachers are almost all women, the share of women among college, university and higher education teaching professionals ranges between 20 and 50 per cent. In addition, among college and university teachers, women's share in grade-A teaching positions (that is, the highest grade/post at which research is normally conducted within these institutions) is only between 0 and 20 per cent[37] (see also box 4.4 and Chapter 3 on Education, section on women in teaching).

3.   Status in employment

To understand the employment conditions and position in the labour market of women and men, it is essential to identify their status in employment. This entails classifying jobs with respect to the type of employment contract a person has with her or his employer or other persons.[38] Such classification provides the statistical basis for analysing employment conditions in terms of a job's level of security, protection and rights.

Globally, half of employed women and men are wage and salaried workers, but variations are found across regions

The extent to which women have access to wage and salaried employment can reflect their integration into the monetary economy and access to a regular income. This, in turn, could have a positive impact on their autonomy and financial independence within the household and enhance their personal development and decision-making power.[39]

37   European Commission, 2009.
38   International Labour Office, 2003; see also International Labour Office, 1993.
39   United Nations, 2012.

Globally, wage and salaried workers constituted half of all employed persons in 2015. This is true for both women and men (figure 4.10). Across regions, however, significant variations are found in terms of status in employment and gender. In Eastern Europe and other developed regions, the vast majority of employed women and men are wage and salaried employees (around 90 per cent with little gender difference). In Southern Europe and Latin America and the Caribbean, wage and salaried workers also represent a big portion of employed women and men (around 60 to 70 per cent), with women even more likely than men to be in these types of employment, particularly in Southern Europe.

There is no gender difference in the share of wage and salaried employment in total employment in the Caucasus and Central Asia, with around 60 per cent of both women and men engaged in this type of employment. In the other developing regions, men are more likely than women to be engaged in wage and salaried employment, although some variations are found among regions. In Eastern Asia, Northern Africa and Western Asia, more than half of employed women are in wage and salaried employment, while for men the percentage is higher (57 per cent in Eastern Asia and 70 per cent in Western Asia and Northern Africa). In South-Eastern Asia, the share of wage and salaried employment for women is 37 per cent; for men it is 41 per cent.

In Oceania, Southern Asia and sub-Saharan Africa, the share of wage and salaried employment is low for both women and men (below 20 per cent for women and slightly below 30 per cent for men) and the majority of women and men are either own-account or contributing family workers (figure 4.10).

Women are more likely than men to be contributing family workers

People working as own-account workers and contributing family workers tend to lack basic social protection and are subject to low income and difficult working conditions. Because of their precarious employment conditions, they are considered to be in "vulnerable" types of employment. Globally in 2015, the share of vulnerable employment was 49 per cent for women and 47 per cent for men, hence a very small gender difference. However, among all forms of vulner-

Figure 4.10
Distribution of employment by status in employment, by sex and region, 2015

Contributing family workers ▪
Own-account workers ▪
Employers ▪
Wage and salaried workers ▪

Source: ILO, Estimates and Projections of the Economically Active Population (EAPEP), 2013 edition (April 2014 update).
Note: Other developed regions include countries in Northern and Western Europe, as well as Australia, Canada, Japan, New Zealand, and the United States. 2015 figures are projections.

able employment, women were more likely than men to work as contributing family workers. The proportion of employed men working as contributing family workers was 7 per cent, compared to 19 per cent among employed women. On the other hand, own-account workers made up 39 per cent of male employment compared to 29 per cent of female employment. Similar patterns were observed in all regions with larger gender differences in developing regions than in the more developed ones (figure 4.10).

The share of women among employers remains small, but has increased steadily

Only a small proportion of women and men are employers—that is, having one or more persons working for them in their businesses as employees. Globally in 2015, 3 per cent of employed men and 1 per cent of employed women were employers. Among all regions, men are more likely than women to be included in this category (figure 4.10). The share of women among employers has shown a slow but steady rise since 1995 globally (16 per cent in 1995 and 21 per cent in 2015[40]) and across most regions. However, women's representation among employers remains far from parity. In 2015, the share of women among all employers was the smallest in Northern Africa and Western Asia (around 5 per cent), followed

by Oceania and Southern Asia at between 10 and 20 per cent. A number of regions have 20 to 25 per cent of women among employers, including: Eastern Asia, Latin America and the Caribbean, South-Eastern Asia, Southern Europe, the Caucasus and Central Asia and other developed regions. Eastern Europe and Sub-Saharan Africa had the largest share of women among employers in 2015, approaching 35 per cent (figure 4.11).

Figure 4.11
Share of women among all employers, by region, 1995 and 2015
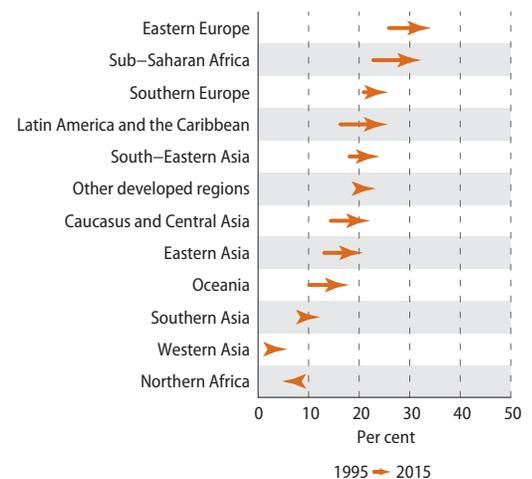
Source: ILO, Estimates and Projections of the Economically Active Population (EAPEP), 2013 edition (April 2014 update).
Note: Other developed regions include countries in Northern and Western Europe, as well as Australia, Canada, Japan, New Zealand, and the United States. 2015 figures are projections.

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40   ILO, Estimates and Projections of the Economically Active Population (EAPEP), 2013 edition (April 2014 update).

Employers and own-account workers are closely associated with the concept of entrepreneurs who create employment for themselves and employment opportunities for others. The promotion of micro and small-scale enterprises has also been identified as a strategy for advancing the economic empowerment of women, while reducing poverty and gender inequality. Measuring entrepreneurship from a gender perspective has remained a challenge and the methodology for collecting data on this topic is currently being developed by the Evidence and Data for Gender Equality Project (box 4.5).

4. Informal employment[41]

Contrary to predictions in the 1950s and 1960s that informal employment, including petty traders, small producers and a range of casual jobs, would be absorbed into the more formal "modern" economy, informal employment has not only persisted since the 1970s but has also emerged in unexpected places, such as in formal sector enterprises.[42] Informal employment offers a survival strategy in countries that do not provide sufficient formal employment opportunities. It is also associated with the lack of social protection, labour legislation and protective measures in the workplace.[43]

Informal employment is an important source of employment for both women and men in developing countries

Informal employment is an important source of employment and livelihoods in many countries. Among 43 countries with available data, it accounted for more than 70 per cent of total non-agricultural employment for women in 15 countries—6 in sub-Saharan Africa and in Latin America and the Caribbean, respectively, and 3 in Southern and South-Eastern Asia. In 7 of the 15 countries (Bolivia, Guatemala, India, Mali, Nicaragua, Pakistan and the United Republic of Tanzania), a majority of men (more than 70 per cent) working in the non-agriculture sector were also employed informally (figure 4.12).

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41 Informal employment comprises the total number of informal jobs whether carried out in formal sector enterprises, informal sector enterprises or households. Categories of informal employment are defined jointly by the type of production unit, status in employment, and access to social protection (Hussmanns, 2004).

42 Chant and Pedwell, 2008; Vanek and others, 2014.

43 International Labour Office, 2014b, Manuscript for Table 8; International Labour Office, 2013d.

Box 4.5
Measuring entrepreneurship from a gender perspective: The Evidence and Data for Gender Equality (EDGE) project

Measuring entrepreneurship from a gender perspective can provide a better understanding of how women and men differ in their entrepreneurial activities. Research has found that gender is a factor in entrepreneurial participation and in the characteristics and performance of enterprises. In both developing and developed countries, women are less likely than men to become entrepreneurs and more likely to be motivated by "push" factors, such as poverty or divorce, to start an enterprise.[a] Women's enterprises also tend to be smaller, to operate with lower capital, to be more embedded in family structures and to be less sustainable than men's enterprises.[b]

Evidence on gaps in sales and profits between female- and male-owned enterprises suggests that many women might face more challenges than men to fulfil their productive and innovative potential. In France, for example, start-up enterprises founded by women tend to have turnovers that are 25 per cent lower than that of men.[c] However, traditional performance measures, such as growth and profits, are not always the top priority for women entrepreneurs.[d] Women are often motivated by objectives other than profit maximization when starting a business, such as greater flexibility to set their own schedules and balance work and family life.[e]

Despite the clear policy relevance of measuring entrepreneurship from a gender perspective, official statistics on female and male entrepreneurs and their enterprises are lacking in most countries. Furthermore, the data that are collected are not comparable across countries because different methodologies are used in different contexts to measure entrepreneurship.

To address these data and methodological gaps, the Evidence and Data for Gender Equality (EDGE) project, a joint initiative of the United Nations Statistics Division and UN-Women, is developing methodological guidance on measuring entrepreneurship from a gender perspective in collaboration with OECD.

a Brush, 1990; Ducheneaut, 1997.
b Robb and Watson, 2010.
c OECD, 2012. Turnovers of an enterprise refer to total sales.
d Carter and others, 2003; Kepler and Shane, 2007.
e Walker and Webster, 2004; Walker, Wang and Redmond, 2008.

The proportion of informal non-agricultural employment is higher for women than for men in many countries in Latin America and the Caribbean and sub-Saharan Africa. For some countries (Poland, Serbia, Sri Lanka, the Republic of Moldova, the former Yugoslav Republic of Macedonia and the State of Palestine), however, the proportion of men engaged in informal employment is higher than that of women (figure 4.12).

Although women and men are both in informal employment, women are often concentrated in the more disadvantaged categories of employment, such as domestic workers, piece-rate home-based workers and assistants in small family enterprises, all of which are among the most vulnerable and lowest paid types of informal

work. A large share of domestic workers, who are frequently excluded from the scope of labour laws or are only covered by less favourable legislation, are women. Globally in 2010, 83 per cent of domestic workers were women, slightly lower than the 86 per cent in 1995.[44]

For international comparability,[45] statistics presented so far on informal employment have been restricted to non-agricultural employment. However, much of the employment in agriculture lacks

social protection and job security, both characteristics of informal employment.[46]

Informal employment in the agricultural sector is also important

For countries with a large agricultural sector, total informal employment increases substantially when agricultural employment is included in the calculation.

For example, in the Republic of Moldova in 2009, the proportion of informal employment among all non-agriculture employment was 11 per cent for women and 21 per cent for men (figure 4.12). However, when the agriculture sector is taken into account, the proportion of informal employment among all employed—in agricultural and non-agricultural activities—is much higher, reaching 27 per cent for women and 33 per cent for men.[47] Similarly, in India in 2011–2012, the proportion of informal employment among all non-agricultural employment was 86 per cent for women and 84 per cent for men. However, when the agriculture sector is included, the proportion of informal employment rises to 95 per cent for women and 91 per cent for men.[48]

5. Part-time employment[49]

Part-time work may offer an effective way to balance time spent on paid work, household responsibilities and childrearing. The possibility of being able to work for fewer hours is also seen as a means to increase employment levels, particularly among women.[50] In addition, part-time work facilitates the gradual entry into, participation in and exit from the labour market.[51]

However, part-time work also comes at a cost. Part-time workers face difficult working conditions, including lower hourly wages and lesser job security, and receive less training and promotion opportunities than their full-time counterparts. They are also at a higher risk of falling

Figure 4.12

Proportion of informal employment among all non-agricultural employment, by sex, 1998–2012 (*latest available*)
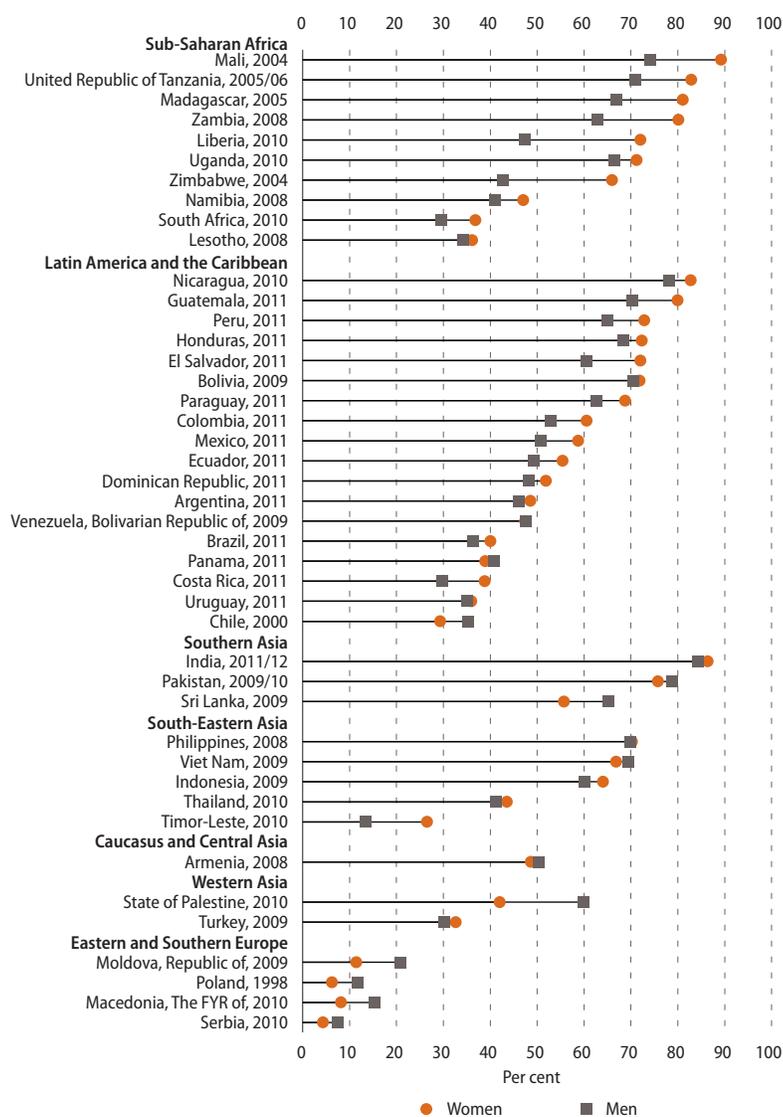
Source: Compiled by the United Nations Statistics Division based on data from the International Labour Office, 2014b. Key Indicators of the Labour Market, 8th edition, table 8 (accessed May 2014). Data for India (2011/2012) was obtained from Raveendran (2015); data for Pakistan (2009/2010), the Philippines (2008) and the United Republic of Tanzania (2005/2006) were extracted from the International Labour Office and Women in Informal Employment: Globalizing and Organizing, 2013.

44 International Labour Office, 2013c.

45 Hussmanns, 2004.

46 Vanek and others, 2014.

47 Compiled by the United Nations Statistics Division based on data from the Republic of Moldova, National Bureau of Statistics, 2009 (accessed May 2014).

48 Raveendran, 2015.

49 There is no official ILO definition of full-time work in terms of the demarcation point between full-time and part-time. Data from OECD are harmonised based on common definition of part time employment, which is based on a common 30-usual-hour cut-off in the main job.

50 Hakim, 2004, chapter 3; Thévenon, O., 2013.

51 International Labour Office, 2014b. Manuscript for Table 6.

into poverty and are less likely to have access to social protection such as unemployment benefits.[52] Some forms of part-time work in developed countries are non-standard types of work with employment conditions similar to those described for informal employment.[53]

Women are more likely than men to be engaged in part-time employment

In 2012, developed regions (except Eastern and Southern Europe) recorded the highest proportion of women working part time (28 per cent) (figure 4.13). Part-time employment was particularly prevalent among women in Northern and Western European countries. Sixty per cent of employed women in the Netherlands worked part time, the highest percentage by far in the world, and over 35 per cent in Germany, Ireland, the United Kingdom and Switzerland. Outside of Northern and Western Europe, employed women in Australia recorded a 38 per cent part-time rate (see Statistical Annex for country-level data).[54]

Latin America and the Caribbean also recorded high proportions of employed women in part-time work (26 per cent in 2012). Among countries within the region, Argentina and Nicaragua registered the highest proportion of women working part-time, at 35 per cent or more (see Statistical Annex for country-level data).[55] Women's part-time employment was not as prevalent in Eastern and Southern Europe, where, in 2012, the average proportion of employed women working part time was 9 and 15 per cent, respectively (figure 4.13).

In all four regions with data, part-time employment was more common among women than men, with prevalence rates for women almost twice or higher than those of men. In 2012, employed men in Latin America and the Caribbean constituted the highest proportion of part-time workers (13 per cent), followed by developed regions (except Eastern and Southern Europe, 10 per cent). As was the case for women in Eastern and Southern Europe, men's part-time employment was also low in those two regions (figure 4.13).

Figure 4.13
Proportion of employed people working part-time by region and sex, 2012
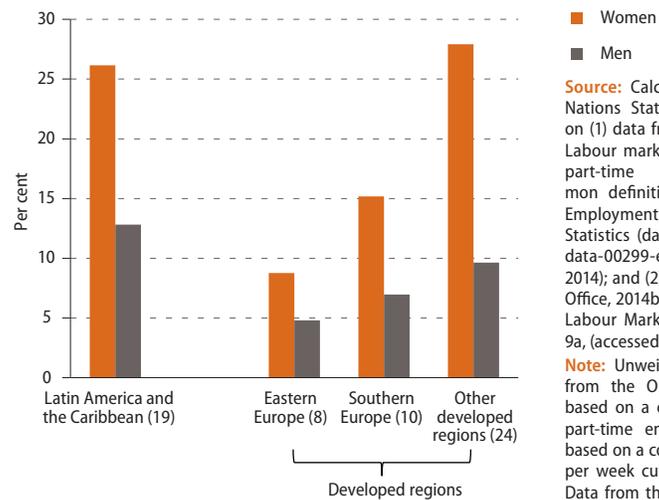
Part-time employment is increasing for men but shows a mixed picture for women

Part-time employment continues to increase for men in most countries, but the trend with regard to women is mixed. Between 1995 and 2012, out of 31 countries with available data, part-time employment increased for men in 30 countries. For women, 17 countries showed an increase of part-time employment while 14 countries showed a decrease (figure 4.14).[56]

Particularly high increases were observed for women in Austria, Chile, Ireland, Italy and Turkey.[57] A large decrease (14 percentage points) in part-time employment during the period was observed for women in Iceland, while a decrease of 8 and 5 percentage points, respectively, was observed for women in Norway and Sweden (figure 4.14).

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52 OECD, 2010.

53 Vanek and others, 2014. The other main categories of non-standard work include (a) own account self-employment, and (b) temporary or fixed-term work.

54 Available at http://unstats.un.org/unsd/gender/worldswomen.html.

55 *Ibid.*

56 Trends in part-time employment are compiled based from data from the OECD, 2014a, Labour market statistics: full-time part-time employment - common definition: incidence. OECD Employment and Labour Market Statistics (database). Data are harmonized based on a common definition of part-time employment, which is based on a common 30-usual-hour per week cut-off in the main job.

57 These are cases where the proportions employed and working part-time increased by more than 10 percentage points between 1995 and 2012 (between 1996 and 2012 in the case of Chile).

Figure 4.14

Proportion of part-time workers among all employed (*age 15 years and over*), **1995 and 2012, by sex**

Women ■
Men ■

1995 ➡ 2012

Slovakia
Russian Federation
Hungary
Czech Republic
Poland
Portugal
Republic of Korea
Greece
Finland
United States
Sweden
Israel
France
Spain
Iceland
Turkey
Chile
Denmark
Canada
Luxembourg
Mexico
Norway
Belgium
Italy
Austria
New Zealand
Ireland
Germany
United Kingdom
Switzerland
Netherlands

0 10 20 30 40 50 60 70 80 90 100
Per cent

**Time-related underemployment
is higher among women than men**

Part-time employment is not always a choice. A substantial number of part-time workers would prefer to be working full-time. This phenomenon is measured by the time-related underemployment rate.[58] In four regions with data, more than 10 per cent of employed women working part-time indicated that they would like to work additional hours. Women in Southern Asia recorded the highest rate of time-related underemployment (21 per cent), followed by women in Northern Africa (17 per cent), sub-Saharan Africa (16 per cent), and Latin America and the Caribbean (10 per cent). Among employed men working part-time, more than 10 per cent in sub-Saharan Africa and Southern Asia indicated that they would like to work more hours (figure 4.15).

Women are more likely than men to be in time-related underemployment in most regions. The largest gender difference is observed in Northern Africa and Southern Asia. In Northern Africa, women's time-related underemployment rate is 17 per cent, compared to 4 per cent for men. Women in Southern Asia recorded a 21 per cent underemployment rate, compared to 12 per cent for men (figure 4.15).

6.   Gender pay gap

Differences in pay for men and women may result from a multitude of factors. They include individual characteristics of workers, such as their level and field of education and work experience, as well as factors connected to the job they perform, such as occupation, type of contract, economic sector and size of the establishment in which they work. Gender inequalities in all these areas are associated with traditions and stereotypes (influencing the choice of education, professions and career paths of women and men) and the difficulties in balancing work and family life that often lead to part-time work and career breaks, mainly for women.[59]

Gender pay gap—levels and trends

**A gender pay gap is found in all countries
with available data**

In all countries with data, women earn less than men. Among 28 European countries that have comparable data on the gender pay gap during the latest period (2008–2012), women working full-time earned between 80 to 90 per cent of what men earned in 19 countries. In four countries (Austria, Germany, Hungary and Slovakia), women's earnings were slightly less than 80 per cent of men's (figure 4.16).[60]

Women also earned less than men in 15 non-European countries with available data. Women working full-time earned between 94 and 98 per

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58   Three criteria are used to define time-related underemployment. The term refers to employed individuals who, in a short reference period, wanted to work additional hours, worked less than a certain hourly threshold set at national level, and who were available to work additional hours in a subsequent reference period.International Labour Office, 1998; International Labour Office, 2013b.

59   Blau and Kahn, 2007; European Commission, 2014; Goldin, 2014.

60   These figures do not cover women and men working in the public sector—that is, national and local government agencies. Including workers in the public sector will change the magnitude of the gender pay gap for some countries. An earlier study based on the 2006 Structure of Earning Survey data showed that pay gaps are smaller among all countries for people working in the public sector than those working in the private sector. The only exception is Bulgaria, where the gender pay gap is slightly smaller for those in the private sector. Source: European Union, 2010.

Figure 4.15

Time-related underemployment rate by sex, 2010–2012 (*latest available*)

Figure 4.16

Ratio of female-to-male earnings, 2008–2012 (*latest available*)
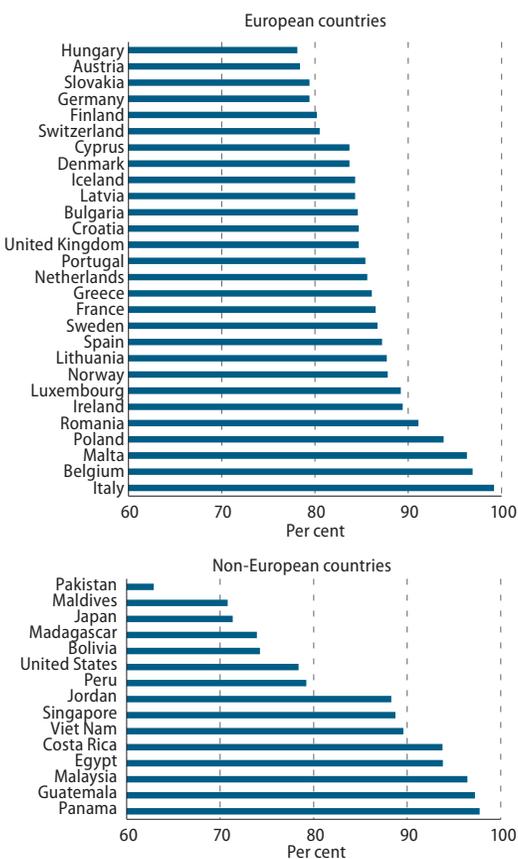
cent of what men earned in five countries. In nine countries, women's earnings were between 70 per cent and 90 per cent of men's earnings. Finally, the difference in earnings between women and men was largest in Pakistan, where women earned only 63 per cent of what men earned in recent years.

Most developed countries show a long-term decline in the gender pay gap, but the trend has been mixed in recent years

Among the 12 European countries that have comparable trend data on the gender pay gap, no consistent trend from 2007 to 2012 was observed. Some countries showed a slightly decreased gender difference in earnings (for example, Iceland, Lithuania and the Netherlands), while others showed an increased difference (such as Bulgaria, Hungary and Portugal). The largest decline in pay differences between women and men was observed in Lithuania, where women's earnings were 78 per cent those of men's in 2007, and 88 per cent in 2012. The largest increase in gender differences in earnings was recorded in Portugal, where women's earnings were 91 per cent of men's in 2007, dropping to 86 per cent in 2012 (figure 4.17). The other countries with available data, however, did not show a clear trend over the period considered.

Analysis based on a longer time series of data, however, showed an overall downward trend in the gender pay gap for many of the developed countries. Out of 19 countries with data for the periods 1995–1999 and 2009–2013, 17 showed an increase in the ratio of women's earnings relative to men's. The largest increase occurred in Ireland, Japan and the United Kingdom, where the ratio of women's to men's earnings increased by more than 10 percentage points.[61]

[61] Compiled by United Nations Statistics Division based on data from OECD, 2014b, Median income of women and men, full-time workers only. www.oecd.org/els/emp/onlineoecdemploymentdatabase.htm#earndisp (accessed December 2014).

Figure 4.17
Trends in female-to-male earnings, selected European countries, 2007 to 2012
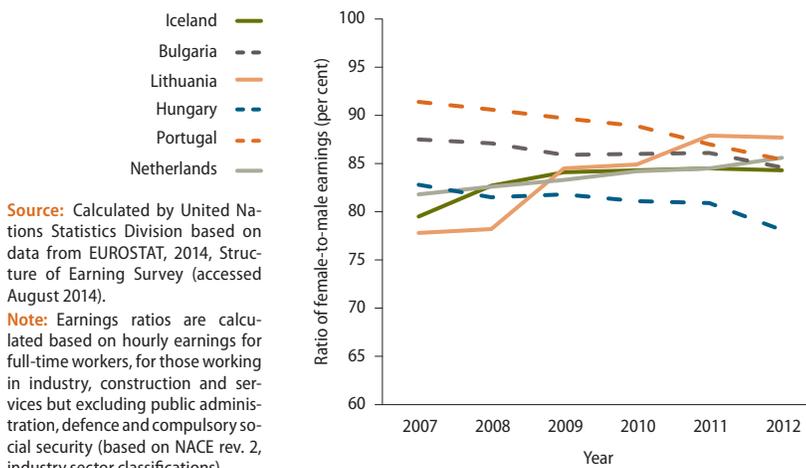
Iceland
Bulgaria
Lithuania
Hungary
Portugal
Netherlands

Source: Calculated by United Nations Statistics Division based on data from EUROSTAT, 2014, Structure of Earning Survey (accessed August 2014).

Note: Earnings ratios are calculated based on hourly earnings for full-time workers, for those working in industry, construction and services but excluding public administration, defence and compulsory social security (based on NACE rev. 2, industry sector classifications).

Box 4.6
Measuring the gender pay gap

A simple indicator—the ratio of women's to men's earnings—is used in this section to examine the gender pay gap.

Earnings is defined as "remuneration in cash and in kind payable to employees, as a rule at regular intervals, for time worked or work done, as well as for time not worked, such as annual vacation and other paid leave or holidays". Earnings exclude employer contributions to their employees' social security and pension schemes and also the benefits received by employees under those schemes.[a]

Statistics on earnings are obtained from different sources.[b] Most developing countries (37 out of 51 countries where data were available) rely on labour force or household income and expenditure surveys, while developed countries seem to rely mainly on establishment surveys (20 out of 38 countries where data were available). Comparability of earnings data from different sources is affected by the type of workers covered, the inclusion and exclusion of overtime pay, incentive pay, bonuses, payment in kind and other allowances, as well as the unit of time used (per hour, per day, per week or per month). Furthermore, some sources use average earnings while others use wage rates. International comparability is also hampered by differences across countries in the size criterion adopted in their surveys or censuses of establishments. In addition, the average earnings of any particular group such as women are affected by the different elements that make up the group, including women with different educational qualifications and different occupations, and the number of full-time and part-time workers in each group.

Income generated from self-employment, due to scarcity of data, is not included in the analysis.[c] In addition, earnings referred to in this section reflect earnings for full-time employment only, to account for the impact of the difference in the number of hours worked by women and men and the difference in average hourly earnings between part-time and full-time workers. This is particularly relevant given that women are more likely to hold part-time jobs than men (see section in this chapter on part-time employment) and that part-time workers tend to have lower hourly earnings than full-time workers.

a International Labour Office, 1973.
b Compiled by the United Nations Statistics Division, based on the International Labour Office, 2014a. ILOStat database (accessed January 2015).
c Only data from 21 countries and areas were available at International Labour Office, 2014a, ILOStat database.

Education and seniority and the gender pay gap

Education increases earnings for both women and men, but the level of benefits varies

Increasing levels of education benefit both women and men in terms of higher earnings, particularly when people move from secondary to tertiary education. The level of benefits in earnings, however, is different for women and men. This has been illustrated by data from European countries. While both women and men make higher earnings when they move from secondary to tertiary levels of education, the improvement in earnings for men is higher than that for women in many European countries. Women seem to benefit more in terms of earnings than men do when they move from primary to secondary levels of education (figure 4.18).[62] The difference in earnings by field of study might be one contributing factor to the lower returns for women than for men when they both move from secondary to tertiary education.[63]

Seniority benefits men's earnings more than women's

In addition to education, work experience is another important factor in explaining pay gaps between women and men.[64] Using seniority as a proxy for work experience shows that work experience benefits men more than women in terms of earnings. The difference in earnings between women and men is smaller at the beginning of their careers in the same company.

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62 When controlling for a number of personal characteristics such as years of employment, marital status, household structure, place of residence and cognitive skills, the return of education in earnings could be higher for women than for men (Dougherty, 2005).

63 Large differences in earnings by field of study have been observed and there was some tendency for the highest-paying fields of study to be associated with programmes that had high proportions of male graduates and for the lower-paying fields of study to be associated with programmes that had high proportions of women in countries with available data (OECD, 2013b).

64 A study, which surveyed graduates from the University of Michigan Law School classes of 1972–1975, found a small difference in earnings between female and male graduates at the outset of their careers, but a 40 per cent difference in favour of men 15 years after graduation. The difference remained after controlling for the number of hours worked for both women and men. The same result was reached by a more recent study in 1982–1991. Another study on Master's of Business Administration (MBA) graduates from the University of Chicago Booth School from 1990–2006 produced similar results (Goldin, 2014).

Seniority leads to increased earnings for both women and men. However, the increase benefits men much more than women. The gender pay gap is much larger between women and men at the end of their career, after more than 30 years of working with the same company, than between those at the start of their careers. Exceptions were noticeable in the financial and insurance sector and the information and communication sector, where the gender pay gap that existed when women and men entered the workforce held steady throughout their career and after 30 years of service (figure 4.19).

Segregation and the gender pay gap

The gender pay gap persists across all economic sectors and occupations

A gap in earnings between women and men persists across all economic sectors (figure 4.20). However, significant variations are found in the gender pay gap from one industry to another. Based on 2010 data for EU member States, in 15 out of 17 economic sectors, women earned between 70 and 95 per cent of what men earned. Within the manufacturing and financial and insurance industries sectors, women earned 68 and 64 per cent of what men earned, respectively.

Variations are also found within each sector, depending on the occupation a person holds, as illustrated in figure 4.21, which shows the gender difference in earnings for two sectors with the largest gender gap in pay (the financial and insurance and manufacturing sectors), as well as two other sectors (the human health and social work sector and education), where employed women are usually concentrated and have relatively lower gender gaps in earnings.

Among all people who work in the financial and insurance sector, the pay gap between women and men (favouring men) is highest for managers and professionals (women earn around 65 per cent of what men earn), compared to supporting clerks (where women earn 83 per cent of what men earn) (figure 4.21). For the manufacturing sector, the highest gender gap in pay is found among craft and related trade workers, with women earning 55 per cent of what men earn. This is in contrast to supporting clerks, among whom the ratio of women's to men's earnings is 89 per cent.

Figure 4.18

Gains in earnings from increasing educational levels, by sex, European countries, 2010
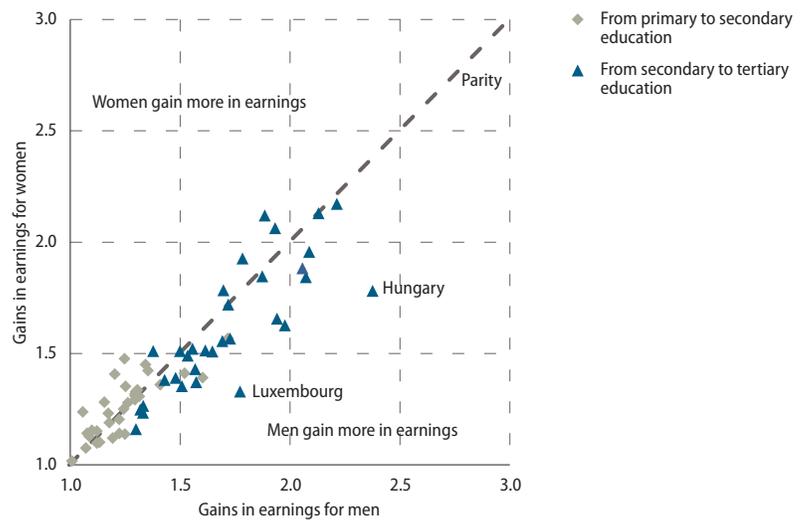
Source: Calculated by United Nations Statistics Division based on data from EUROSTAT, 2014, Structure of Earning Survey 2010 (accessed July 2014).
Note: Gains in earnings from primary to secondary education is calculated as the ratio of earnings of those with secondary education to those with primary education. Gains in earnings from secondary to tertiary education are calculated as the ratio of earnings of those with tertiary education to those with secondary education. This reflects earnings for full-time workers and for those working in industry, construction and services but excluding public administration, defence and compulsory social security (based on NACE rev. 2, industry sector classifications).

Figure 4.19

Hourly earnings by industrial sector and the number of years in the same company, average of European countries, 2010
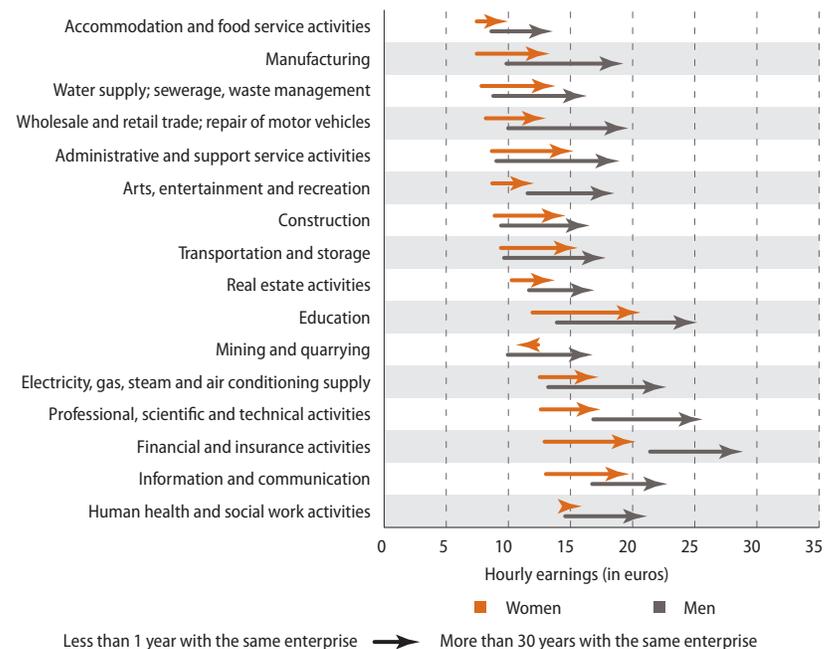
Source: Calculated by United Nations Statistics Division based on data from EUROSTAT, 2014, Structure of Earning Survey 2010 (accessed July 2014).
Note: Data cover 27 EU member States, except Croatia, which joined the EU in 2013. Data reflect earnings for full-time workers and for those working in industry, construction and services but excluding public administration, defence and compulsory social security (based on NACE rev. 2, industry sector classifications).

Figure 4.20
Gender gap in hourly wage by industrial sector, average of European Union, 2010

Ratio of female-to-male earnings (per cent)

Variations within the two sectors traditionally dominated by women—human health and social work, and education—differ greatly. Within the human health and social work sector, professionals have the highest gender pay gap. Here, women's earnings are only 67 per cent of those of men; among managers, the ratio of women's to men's earnings is 72 per cent. Variations in the gender pay gap within the education sector are smaller across occupations; the ratio of women's to men's earnings range from 80 to 95 per cent.

The unexplained gender pay gap

As called for by the Beijing Platform for Action, women and men have the right to equal pay for equal work or work of equal value. However, as illustrated in this section, women earn less than men, even when they are equally educated, graduated in the same field, have the same number of years of experience or work on the same type of job. Even when a large number of characteristics are taken into consideration together, pay differentials between women and men may be explained only to a certain degree.[65] Those that cannot be explained could be attributed to discrimination.

Discrimination against women is reflected in direct ways such as paying women and men differently when they have the same qualifications and work on the same job. However, indirect discrimination, or traditions and stereotypes about women's role in the society and family, impact women's earnings also through the choice they make in fields of study and later on in their occupations and how they respond to the challenge of work and family life balance. The gender pay gap seems to be particularly wide for occupations that have higher demand on workload, such as on-call, emergency or night shifts performed on a regular basis.[66]

C.   Reconciliation of work and family life

1.   Sharing unpaid work

Women are the primary caretakers of the family

Although their participation in the labour force has increased in most countries, women continue to bear the majority of responsibilities at home and perform most unpaid work including taking care of children and other adult household members, cooking, cleaning and other housework. These activities, although productive, are not included within the SNA production boundary.[67]

In the statistics on time-use presented in the current chapter, work within the SNA production boundary is referred to as "paid work" (even if some may actually be unpaid, such as work falling within the SNA production boundary performed by contributing family workers). Work that falls outside the SNA production boundary, that is, household production of services for own consumption, is referred to as "unpaid work" and consists mainly of domestic work

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65   European Union, 2010, personal and job characteristics explain only 50 per cent of the total gender pay gap; Ñopo, Daza and Ramos, 2011, personal and job characteristics explain partially the total gender pay gap, based on studies of 35 countries, from developing and developed regions.

66   An analysis of 2006–2008 data for the United States on earnings for women and men in the 87 highest-paid occupations showed that the gender pay gap is the highest for occupations such as physicians and surgeons, dentists, personal financial managers, and lawyers and judges. Lower gender pay gaps were found in health-care occupations such as pharmacists, optometrist and veterinarians (Goldin and Katz, 2011).

67   The System of National Accounts production boundary includes (1) the production of goods and services destined for the market, whether for sale or barter, (2) all goods and services provided free to individual households or collectively to the community by government units or non-profit institutions serving households, and (3) the production of goods for own use. All production of services for own final consumption within households—that is, domestic and personal services produced and consumed by members of the same household, are excluded.

Figure 4.21
Gender gap in hourly wage by industrial sector and occupation, European Union, 2010
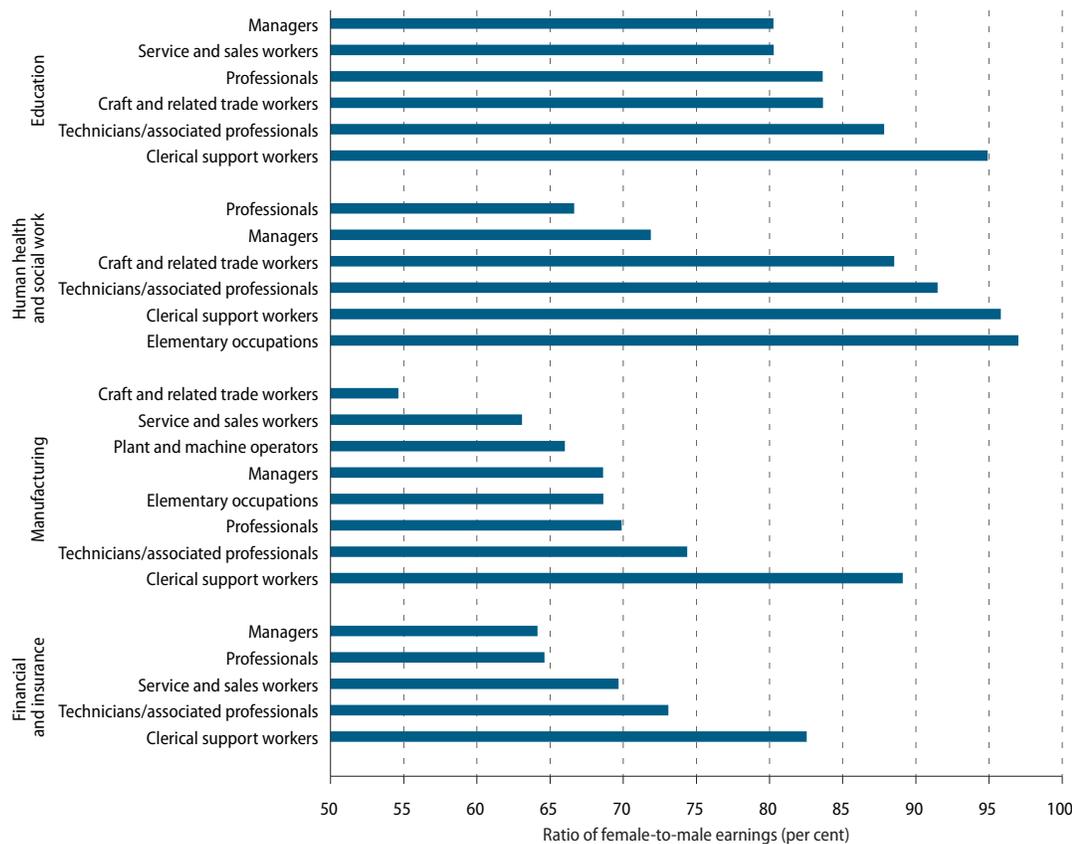
Ratio of female-to-male earnings (per cent)

and community or volunteer work. Domestic work includes food preparation, dishwashing, cleaning and upkeep of a dwelling, laundry, ironing, gardening, caring for pets, shopping, installation, servicing and repair of personal and household goods, childcare, and care of the sick, elderly or disabled household members, among others. Community or volunteer work includes volunteer services for organizations, unpaid community work, and informal help to other households, among other activities.

Based on available data, women in developing countries spend, on average, 4 hours and 30 minutes per day on unpaid work, and men 1 hour and 20 minutes. The gender difference is smaller in developed countries, where women spend less time (4 hours and 20 minutes) and men spend more time (2 hours and 16 minutes) per day on unpaid work than their counterparts in developing countries (figure 4.22).

Based on data for 10 developing and 25 developed countries, gender differences are found in the time spent on major household tasks such as pre-

paring meals, cleaning and caring for household members. Yet, the difference between women and men in time spent on these tasks is smaller in developed countries covered by the analysis than in developing ones. For example, on the task of preparing meals, which is the most time-consuming household task for women, women in the 10 developing countries spend around 1 hour 40 minutes more than men per day, while women in the 25 developed countries spend around 1 hour more per day than men.[68]

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[68] Based on analysis of 10 developing countries and 25 developed countries where data for different categories of unpaid work are available. Developing countries include Algeria, Armenia, Iraq, Kazakhstan, Lao People's Democratic Republic, Pakistan, Republic of Korea, South Africa, Turkey and Uruguay. Developed countries include Albania, Australia, Austria, Belgium, Bulgaria, Canada, Denmark, Estonia, Finland, France, Greece, Hungary, Italy, Netherlands, New Zealand, Norway, Republic of Moldova, Romania, Serbia, Spain, Sweden, Switzerland, the former Yugoslav Republic of Macedonia, the United Kingdom and the United States. Compiled by the United Nations Statistics Division based on country-level data from EUROSTAT (2011), OECD (2014c), UNECE (2014), UNECLAC (2014), and national statistics offices (as of June 2015).

Figure 4.22
Time spent on unpaid work by sex, developing and developed countries, 2005–2013
(*latest available*)

This divide applies to the other two household tasks considered: cleaning and caring for household members. One exception is time spent on shopping, with men in the nine developing countries with data spending as much time as women on this activity.

Gender differentials in time spent on unpaid work are narrowing over time

Although women and men still spend vastly different amounts of time per day on unpaid activities, the differentials appear to have decreased over time, as shown by data from various countries (figure 4.23). Variations are found, however, among countries in terms of how the decrease in gender differentials on time spent on unpaid work was reached, the pace of progress as well as the type of activities that contributed to the narrowing gender differentials.

In Norway, for example, the gender difference in time spent on unpaid work decreased from 1 hour and 46 minutes to 50 minutes between 1990 and 2010. However, comparable data from 1970 showed that the narrowing of gender differentials on unpaid work—a decrease of 1.5 hours from 1970 to 1990—was sharper than the 56 minutes of the later period, mainly due to significantly reduced time women spent on unpaid activities. Men in the same period (1970–1990), on the other hand, did not record much increase in time spent on unpaid work: most of the increase in men's unpaid activities occurred between 2000 and 2010 and was mainly due to an increase in time spent on caring for household members.[69]

In the United States, time spent by both women and men on unpaid activities declined from 2003 to 2013 and the gender gap narrowed slightly (around 10 minutes) (figure 4.23). Earlier data have shown that in the country, most of the narrowing in the gender difference of time spent on unpaid work was recorded between the mid-1960s and the mid-1990s. During that period, a large reduction in women's time spent on household chores–mainly meal preparation and cooking (almost 2 hours) was accompanied by a small increase in time spent by men on those activities (10 additional minutes).[70] Between 1993 and 2003, there was not much change in time spent on household tasks, but both women and men experienced an increase in time spent on childcare.[71]

The narrowing of gender differences in the time spent on unpaid work is mostly attributable to the decrease in women's time spent on housework. The time spent by both women and men on care for household members, dominated by childcare, has not changed much or has even increased over time. The increasing amount of time spent on childcare was confirmed by a study covering 16 countries (mostly developed) for the period 1971–1998. The study further noted that not only have parents increased the amount of time they spend with children, but that the increase was mainly spent on interactive activities (such as actively playing with children), rather than on passive activities (such as minding them).[72]

In discussions on what contributed to the narrowing of gender differentials in time spent on domestic work, women's economic empowerment, particularly their increased participation in the labour market, seems to have been an important contributing factor.[73] Additional income from women for their families could make outsourcing domestic services or dining out more affordable. Smaller family size may also be one of the factors contributing to reduced work for women in the family.

69 Data compiled based on Egge-Hoveid and Sandnes, 2013.
70 Hamermesh, 2005; Kimberly and others, 2007.
71 Bianchi, Wight and Raley, 2005.
72 Gauthier, Smeedeng and Furstenberg, 2004.
73 Miranda, 2011.

Figure 4.23
Trends in time spent on unpaid work per day, selected countries
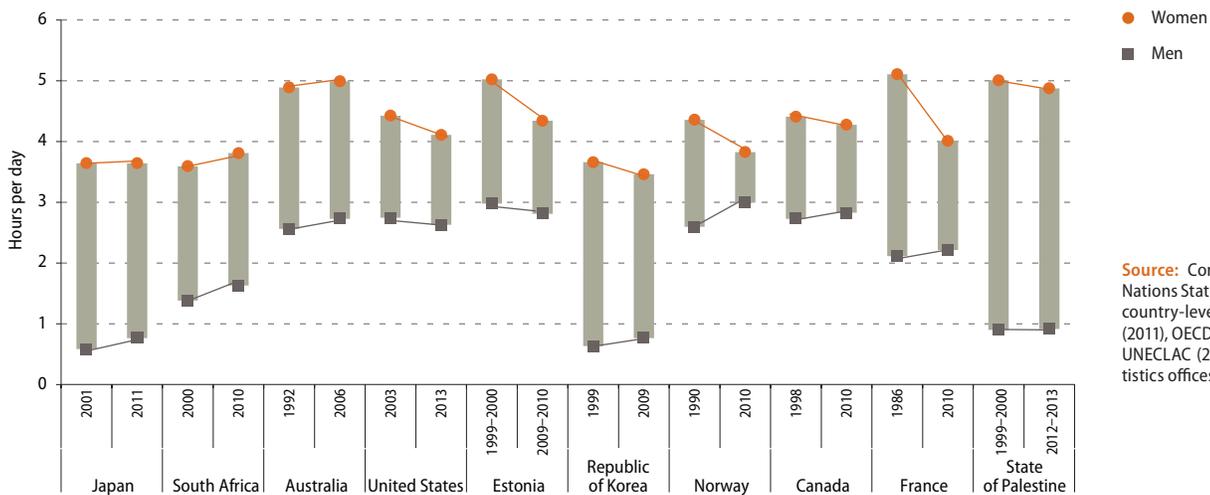
Women
Men

Box 4.7
Time-use statistics: Interpretation and comparability

Time-use surveys collect information on a set of activities people engage in during a specific period of time. These activities include those that are paid or for profit (such as time spent at work), unpaid work (such as cleaning, cooking, caring for household members), and personal activities (such as sleeping and eating). From a gender perspective, time-use surveys provide uniquely important data not only on the time spent on domestic work but also on the total workload, including both domestic work and work for pay or profit.

Data on time-use may be summarized and presented as either "participant averages" or "population averages". In the participant average, the total time spent by the individuals who performed an activity is divided by the number of persons who performed it (participants). In the population average, the total time is divided by the total relevant population (or a sub-group thereof), regardless of whether people performed the activity or not. In this chapter, all statistics presented on time spent in various activities are population averages. Population averages can be used to compare groups and assess changes over time. Differences among groups or over time may be due to a difference (or change) in the proportion of those participating in the specific activity or a difference (or change) in the amount of time spent by participants, or both.

When time spent is expressed as an average per day, it is averaged over seven days of the week (weekdays and weekends are not differentiated). Thus, for paid work, a five-day work week averaging seven hours per day would show up as an average of five hours of paid work per day (35 hours divided by 7 days).

International comparability of time-use statistics is limited, however, by a number of factors, including:

- **Diary versus stylized time-use survey**. Data on time-use can be collected through a 24-hour diary or stylized questionnaire. With diaries, respondents are asked to report on what activity they were performing when they started the day, what activity followed, and the time that activity began and ended, and so forth through the 24 hours of the day. Stylized time-use questions ask respondents to recall the amount of time they allocated to a certain activity over a specified period, such as a day or week. Often, stylized time-use questions are attached as a module to a multipurpose household survey. The 24-hour diary method yields better results than the stylized method but is a more expensive mode of data collection. Data obtained from these two different data collection methods are not comparable.

- **Time-use activity classification**. As much as possible, the analysis in this section has been based on the trial International Classification of Activities for Time-use Statistics (ICATUS),[a] according to which paid and unpaid work are delineated by the SNA production boundary. National classifications of time-use activities may differ from the trial ICATUS, resulting in data that are not comparable across countries.

- **Activities related to unpaid care**. Time-use data presented refer to the "main activity" only. Any "secondary activity" performed simultaneously with the main activity is not reflected in the average times shown. For instance, a woman may be cooking and looking after a child simultaneously. For countries reporting cooking as the main activity, time spent caring for children is not accounted for and reflected in the statistics. This may affect international comparability of data on time spent caring for children; it may also underestimate the time women spend on this activity.

a United Nations, 2005.

The role of government, in terms of providing social services such as affordable childcare and offering incentives for men such as paternity leave, is important in determining how much time family members, women in particular, spend on unpaid work for their households. For example, the reduction of time women spent on domestic work was much faster in Denmark, Norway and Sweden than in other countries. In these Scandinavian countries, social equality is considered to be a major goal of public policy and many family-friendly social services are available.[74]

2.   Combining family responsibilities with employment

Women work longer hours each day than men when unpaid work is factored in

Time-use surveys and studies collect information on time spent on various activities, including paid work. On average, women spend less time on paid work than men. However, when the hours of paid and unpaid work are combined, women work longer hours per day than men, in both developing and developed countries (figure 4.24). Women in developing countries spend a total of 7 hours and 9 minutes per day on paid and unpaid work, while men spend 6 hours and 16 minutes per day. Women in developed countries spend 6 hours and 45 minutes per day on paid and unpaid work (25 minutes less than women in developing countries), while men spend around 6 hours and 12 minutes per day. The gender difference in total working hours—including paid and unpaid work—is slightly smaller in developed than in developing countries: around 30 minutes in comparison to 50 minutes, respectively (figure 4.24).

Balancing work and family life is particularly challenging for employed women

On average, employed women in the 23 developing countries with data spend 9 hours and 20 minutes per day on paid and unpaid work. Employed men in those countries spend 8 hours and 7 minutes per day, which is about 1 hour and 10 minutes less than women (figure 4.25).

Figure 4.24
Time spent on paid and unpaid work by sex, developing and developed countries, 2005–2013 (*latest available*)

Figure 4.25
Time spent on paid and unpaid work by persons employed, by sex, 2005–2013 (*latest available*)

Employed women and men in the 23 developed countries with data spend less time than their counterpart in developing countries. Women spend, on average, 8 hours and 9 minutes, while men spend 7 hours and 36 minutes per day on paid and unpaid work.

The gender difference in total working time for people who are employed is smaller in developed countries (slightly more than 30 minutes per day) than in developing ones (about 1 hour and 10 minutes). However, the gender division

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74 Gálvez-Muñoz, Rodríguez-Modroño and Domínguez-Serrano, 2011; Kan, Sullivan and Gershuny, 2011.

of labour between paid and unpaid work still exists among all countries reviewed. Employed women spend more time than men on unpaid work (such as cooking, cleaning and caring for children), while employed men spend more time than women on paid work.

3. Maternity and paternity leave and related benefits

Maternity protection is a fundamental human right and an important element of policies aimed at balancing the participation of women and men in family and work life. Maternity protection covers various aspects, including the prevention of exposure to health and safety hazards during and after pregnancy; entitlement to paid maternity leave and breastfeeding breaks; maternal and child health care; protection against discrimination in employment and occupation, including with respect to recruitment and dismissal; and the guaranteed right to return to the job after maternity leave.

Maternity protection not only contributes to the health and well-being of mothers and babies; it also promotes effective gender equality at work. Three maternity protection conventions were adopted by the International Labour Organization (ILO) in 1919, 1952 and 2000. The latest one is the Maternity Protection Convention (No. 183), adopted in 2000, which stipulates that women should be entitled to no less than 14 weeks of maternity leave, with paid cash benefits of at least two thirds of their previous earnings.[75]

Many countries have adopted maternity and paternity benefits through legislation. Both mothers and fathers benefit from the legislation. However, the coverage is not universal. Workers in specific sectors or categories of employment (defined by working-time, type of contract, etc.) are often explicitly excluded from maternity and paternity benefits in legislation in many countries. More specifically, workers such as paid domestic workers, own-account workers and contributing family workers, casual and temporary workers, and agricultural workers are usually not eligible for maternity and paternity benefits.

Maternity leave

Over half of countries offer at least 14 weeks maternity leave; the proportion has increased over the past 20 years

In 2013, more than half (53 per cent) of the 174 countries with available data offered 14 weeks minimum statutory (that is, specified in national laws and regulations) maternity leave, as recommended by ILO Convention No. 183.

All countries in the Caucasus and Central Asia, and Eastern and Southern Europe offer at least 14 weeks of maternity leave. Most countries in the other developed regions also follow the Convention. The length of statutory maternity leave is shorter than 14 weeks for many countries in other regions. In Eastern Asia and sub-Saharan Africa, for example, between 40 and 50 per cent of countries offer 14 weeks or more of maternity leave. In other regions, namely, Latin America and the Caribbean, Northern Africa and Western Asia, Oceania, Southern Asia and South-Eastern Asia, less than 30 per cent of countries offer at least 14 weeks for maternity leave (figure 4.26).

From 1994 to 2013, the number of countries offering 14 weeks minimum statutory maternity leave increased from 38 to 53 per cent. In Eastern Europe and the Caucasus and Central Asia, 75 per cent of countries specified at least 14 weeks of maternity leave in 1994, and all countries currently offer 14 weeks at a minimum. For developed regions (excluding Eastern Europe), countries having at least 14 weeks of maternity leave increased from 77 to above 90 per cent. Improvements were also made in Africa, Asia, Latin America and the Caribbean, Northern Africa and Western Asia. [76]

Fewer than half of countries meet the criteria set by ILO Convention No. 183 on maternity leave benefits

The ILO Convention No. 183 specifies that women should be granted paid cash benefits of at least two thirds of their previous earnings for at least 14 weeks of maternity leave. Out of 174 countries that have information on maternity leave, 83 (48 per cent) met the criteria set by the Convention in 2013, including all countries in Eastern Europe and the Caucasus and Central Asia (100 per cent). The proportion of countries that meet the criteria is slightly lower in Southern

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[75] International Labour Office, 2000.

[76] International Labour Office, 2014c.

Figure 4.26

Distribution of countries with maternity leave provisions by length of leave and by region, 2013

Legend:
- 14 weeks or more
- 12 to 13 weeks
- Less than 12 weeks

Figure 4.27

Maternity leave duration and cash benefits by region, 2013
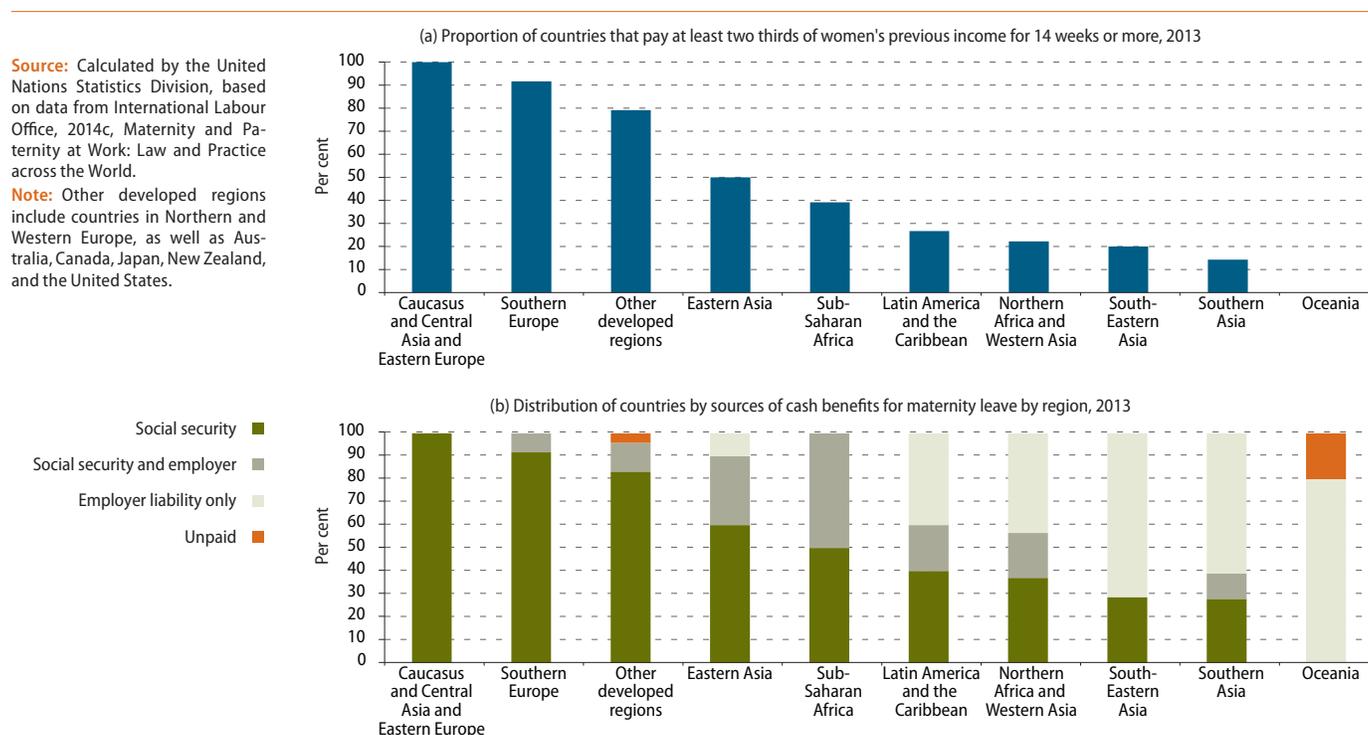
(a) Proportion of countries that pay at least two thirds of women's previous income for 14 weeks or more, 2013

(b) Distribution of countries by sources of cash benefits for maternity leave by region, 2013

Legend:
- Social security
- Social security and employer
- Employer liability only
- Unpaid

Europe (92 per cent) and other developed regions (79 per cent). The proportion of countries meeting the required criteria is much lower in developing regions, ranging from 50 per cent in Eastern Asia to 0 per cent in Oceania (a). Only two countries do not have legal provisions on cash benefits for maternity leave: Papua New Guinea and the United States.

The source of cash benefits for maternity leave is also significant. Using social security or social insurance instead of having employers bear the cost for paying such benefits should reduce discrimination against women, especially those of reproductive age in the labour market. In 2013, all countries in Eastern Europe and the Caucasus and Central Asia covered cash ben-

efits for maternity leave through social insurance schemes. The percentage of such countries was lower in Southern Europe (92 per cent) and other developed regions (83 per cent). The percentage was much lower in the other regions, at 60 per cent or less. Twenty-eight countries fund maternity leave cash benefits through a combination of social security and employer contributions, among which nine are in Latin America and the Caribbean and in sub-Saharan Africa, respectively (figure 4.27b).

Paternity leave

Paternity leave is becoming more common

Paternity leave, in general, is a short period of leave for the father immediately following the birth of his child. It is intended to encourage fathers to assist mothers in recovering from childbirth to take care of the newborn and other children, and to attend to other family-related responsibilities. A recent OECD study carried out for four countries—Australia, Denmark, the United Kingdom and the United States—has shown that fathers who take leave around the birth of their child, especially those taking two weeks or more, are more likely to engage in childcare-related activities when the children are young.[77]

In 2013, out of 163 countries with available data, 78 (48 per cent) had provisions on paternity leave. Southern Europe and the other developed regions have the highest proportion of countries with such provisions (80 per cent and 63 per cent, respectively). More than half of sub-Saharan African countries (53 per cent) offer paternity leave. Very few countries in Southern Asia offer paternity leave (14 per cent), and no country in Oceania has a provision on paternity leave. In other regions, the prevalence of paternity leave ranges from between 30 and 50 per cent (figure 4.28).

Paternity leave is becoming more common: The proportion of countries with such leave provisions has increased from 27 per cent in 1994 to 48 per cent in 2013. Countries in Southern Europe and the other developed regions also witnessed an increase in the length of time granted for paternity leave. In 2013, 19 countries in those two regions offered seven days or more, compared to five countries in 1994.[78]

The duration of statutory paternity leave varies from one day to more than two weeks, mostly paid. Among the 78 countries that provide paternity leave in 2013, 69 offer cash benefits. In more than half (44 countries), cash benefits are covered by employers only. One major issue in discussing paternity leave is the difference between statutory paternity leave and the actual rates of fathers

Figure 4.28
Proportion of countries with paternity leave provisions by length of leave and region, 2013

Legend:
- 7 days or more
- 1 to 6 days
- No paternity leave

77 Huerta and others, 2013.

78 Calculated by United Nations Statistics Division based on data from International Labour Office, 2014c.

taking that leave. Data are not available to show cross-country comparisons on paternity leave take-up rates. However, as discussed in the case of maternity leave, cash benefits paid by social security systems rather than by employers not only help reduce potential employment discrimination against fathers with family responsibilities but also help improve the take-up rates for paternity leave.

Chapter 5

Power and decision-making

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Key findings

- The number of female Heads of State or Government reached 19 in 2015, only seven more than in 1995.
- Women's representation in lower or single houses of parliament has increased, yet globally only about one in every five of parliamentarians is a woman.
- Around 30 per cent of electoral candidates in lower or single houses of parliament are women.
- Women's representation among cabinet ministers increased from 6 per cent in 1994 to 18 per cent in 2015.
- Women's participation in local government has grown in many countries, yet remains far from parity.
- Women are outnumbered by men among judges and magistrates in about half of the countries with data. At higher levels up the judicial hierarchy, women's representation declines drastically.
- The media remains a male-dominated industry that reinforces gender stereotypes.
- The glass ceiling appears to be most impenetrable in the world's largest corporations; less than 4 per cent of Chief Executive Officers (CEOs) are women and the gender composition of executive boards of private companies is far from parity.

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Introduction

In societies around the world, men typically hold most positions of power and decision-making, an area in which gender inequality is often severe and highly visible. Advances over the past two decades are evident in all regions and most countries, but progress has been slow. Women continue to be underrepresented in national parliaments. They are seldom leaders of major political parties, participate as candidates in elections in small numbers and, during electoral processes, face multiple obstacles deeply rooted in inequality in gender norms and expectations. The use by some countries of gender quotas has improved women's chances of being elected. Yet, once elected, few women reach the higher echelons of parliamentary hierarchies.

Women are also largely excluded from executive branches of government, and female Heads of State or Government are still the exception. Only a minority of women are appointed as ministers and, when they are, they are usually not assigned to core ministries (such as to the cabinet of the prime minister, or to ministries of home affairs, finance, defence and justice). Women continue to be outnumbered by men in the highest-ranking positions in the civil service. They are not equally represented among government ambassadors and representatives to the United Nations, nor in local government. The underrepresentation of women is even more extreme in the private sector. The glass ceiling appears to be most impenetrable in the largest corporations, which are still essentially male dominated, particularly at the level of CEO.

This chapter provides an assessment of the current situation in the participation of women and men in positions of power and decision-making across the world, as well as trends over the past two decades. Three main areas are covered: politics and governance, the media, and the private sector.

Box 5.1
Gaps in statistics on women in positions of power and decision-making

Women's representation in positions of power and decision-making in public office, corporations and the media has garnered growing attention over the past two decades. Moreover, data for monitoring progress in these areas are also increasingly available. The most readily available information on decision-making relates to the number and proportion of women in national parliaments and key elected positions, collected under the auspices of the Inter-Parliamentary Union (IPU). For instance, the number of countries from which data on women's representation in lower or single houses of parliament were available increased from 167 in 1997 to 190 in 2015.[a] Data on women's representation in ministerial positions were available for 181 countries in 1994 and 192 countries in 2015.[b]

For other topics, data are available for fewer countries. For example, as at March 2015, sex-disaggregated data on candidates in the latest parliamentary elections, compiled by the IPU, are available for 99[c] countries compared to 65 countries in 2010[d]. Sex-disaggregated data, as at April 2015, on the number of female judges and magistrates, compiled annually by the United Nations Office on Drugs and Crime (UNODC), are available for 76 countries.[e]

Data on power and decision-making are also collected by regional organizations for their member States. The European Commission, for example, regularly monitors the numbers of men and women in key decision-making positions for the 28 countries of the European Union (EU), as well as candidate countries (such as Iceland, Serbia, the former Yugoslav Republic of Macedonia and Turkey) and two other European countries (Liechtenstein and Norway)[f]. Indicators maintained in its database cover positions in politics, public administration, the judiciary, business and finance, social partners and non-governmental organizations (NGOs), environment and the media. The United Nations Economic Commission for Europe (UNECE) also maintains indicators on positions of decision-making in public life and the private sector for its Member States.[g] The United Nations Economic Commission for Latin America and the Caribbean (UNECLAC) maintains indicators on autonomy in decision-making in the Gender Equality Observatory for Latin America and the Caribbean[h], as well as indicators on women in power and decision-making in

CEPALSTAT (Statistics on Latin America and the Caribbean).[i] Data are available from 1998 to 2013 for countries in Latin America and the Caribbean, as well as for some countries in Europe such as Portugal and Spain.

Consistently measuring the participation of women in local governments across countries and regions remains a challenge, since internationally agreed standards, definitions and indicators for monitoring this area are yet to be developed. Moreover, local government structures vary from one country to the next. Depending on the region or country, data collected may differ in the level or type of positions taken into consideration, and the metadata needed to understand those differences are often missing. Currently, data on participation in local governments are regularly collected and maintained by some regional agencies only, including by the European Commission and UNECE for Europe and by UNECLAC for Latin America and the Caribbean. All together, these sources provided data on mayors for 59 countries and on city or town councils for 55 countries in Europe and Latin America and the Caribbean.[j] In Asia and Oceania, information on the percentage of subnational (all tiers of government below national level) women's representation has been published in ad hoc regional reports prepared by the United Nations Development Programme (UNDP) and is available for 29 countries.[k] The United Nations Economic and Social Commission for Western Asia (UNESCWA) produced the electronic publication "Gender in Figures" in 2011, 2013 and 2013–2014, and in the latest edition[l], published data on women in local councils or municipalities for eight countries in Northern Africa and Western Asia.

At the international level, official data also tend to be sparse on women's access to high-level decision-making positions in the media and the private sector. Statistics and analysis on these topics are based in large part on private and NGO sources. Most of the indicators for measuring the participation of women in power and decision-making focus on their individual participation. However, women's collective action is of equal importance if women's issues are going to be taken into consideration by policy makers.[m] Yet, the measurement of collective action is challenging as the concept is broad and requires many different aspects to be measured.

a United Nations, 2015a.

b United Nations, table 6A, 2000a and IPU and UN Women, 2015.

c Compiled by the United Nations Statistics Division from IPU, PARLINE database on national parliaments, www.ipu.org/parline-e/parlinesearch.asp (accessed 25 March 2015). Data for Andorra, Canada, Cyprus, Estonia, Ireland and the Lao People's Democratic Republic obtained from the IPU, 2011c. Data for Armenia, Gambia and Lesotho obtained from IPU, 2013.

d United Nations, 2010b.

e UNODC, 2015.

f European Commission, 2015a.

g UNECE, 2015.

h UNECLAC, 2014.

i UNECLAC, 2015.

j European Commission, 2015a; UNECLAC, 2015.

k UNDP, 2014.

l UNESCWA, 2015.

m UN Women, 2015.

A. Politics and governance

Equal participation of women and men in politics is central to more inclusive and democratic governance. As stated in the Universal Declaration of Human Rights, "everyone has the right to take part in the government of his country, directly or through freely chosen representatives."[1, 2] Greater representation of women in national and local government can bring a different perspective on women's needs and priorities when framing national and local policies and allocating budgets. The election of women to parliament can be a first step towards gender-sensitive reforms. In some contexts, greater representation of women in public decision-making has already been associated with policy and budgetary shifts. For instance, a study conducted in 2006–2008 among parliamentarians from 110 countries showed that women in parliament were more likely than men to prioritize gender and social issues such as childcare, equal pay, parental leave, pensions, reproductive rights and protection against gender-based violence.[3]

1. Parliaments

Women's representation in parliament has increased, yet globally only about one in five members of parliament are female

Although women make up about half of the electorate and have attained the right to vote and hold office in almost every country in the world,[4] they continue to be underrepresented as members of national parliaments. Improvement in the representation of women in this domain has been steady, but there is still a long way to go. The proportion of seats held by women in single or lower chambers of national parliaments[5] was

22 per cent in 2015, almost double the level recorded in 1997 (12 per cent).[6]

The share of women in parliament has increased steadily in most subregions (figure 5.1). In 2015, it was highest in the Caribbean, followed by developed regions, Latin America, Northern Africa and sub-Saharan Africa. All subregions in Asia and Oceania were below the global average. The lowest share of women in parliament continues to be found in Oceania, although minor improvements have been noted over time. Eastern Asia, which used to have one of the highest shares of women in single or lower houses of parliament in 1990, has made little progress and, in 2015, was below the global average.

A small number of countries have reached or surpassed the parity line of 50 percent. Since 2003, the record for women's representation in a national parliament is no longer held by any of the Nordic countries, which have been leading on this issue for decades.[7] Instead, Rwanda is presently ranked as number one (64 per cent). Other countries or areas ranking high in the representation of women in parliament are Bolivia (53 per cent), Andorra (50 per cent) and Cuba (49 per cent). They are followed by a group of countries with representation by women ranging from 40 to 44 per cent and include Ecuador, Finland, Iceland, Mozambique, Namibia, Norway, Senegal, Seychelles, South Africa, Spain and Sweden. All these countries have reached and surpassed the international target of 30 per cent of women in leadership positions originally set by the United Nations Economic and Social Council (ECOSOC) in 1990[8] and reaffirmed in the Beijing Platform for Action in 1995.[9] In 2015, a total of 43 out of 190 countries reached or surpassed this target. These countries cut across all levels of economic development and democratic freedoms and liberties. Most of them are located in the three regions that progressed the most over the past two decades in terms of meeting the target: the developed regions (18 countries), sub-Saharan Africa (12 countries), and Latin America and the Caribbean (9 countries). At the other extreme, 70 countries (or close to one third of all countries with parliaments) have less than 15 per cent participation of women in the lower or single houses of national

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1 United Nations, 1946.

2 This right was reiterated in the Article 25 of the International Covenant on Civil and Political Rights adopted by General Assembly resolution 2200 (XXI) of 16 December 1966. United Nations, 1966.

3 IPU, 2008.

4 In Saudi Arabia, while women and men have the right to vote, women are yet to vote in an election. In Brunei Darussalam, women and men have limited voting rights. In the United Arab Emirates (UAE) there is limited suffrage as the Parliament is indirectly elected. UN Women, 2015.

5 Out of 191 countries with parliaments, 115 have unicameral parliaments and 76 countries have bicameral parliaments (which include a lower chamber and an upper house or senate). As at 1 January 2015, there was no parliament in Brunei Darussalam, the Central African Republic and Egypt. IPU and UN Women, 2015.

6 As at January of corresponding year. United Nations, 2015c.

7 IPU, 2011a.

8 United Nations, 1990.

9 United Nations, 1995a.

Figure 5.1
Proportion of seats held by women in single or lower houses of parliament, by region as at January 2015
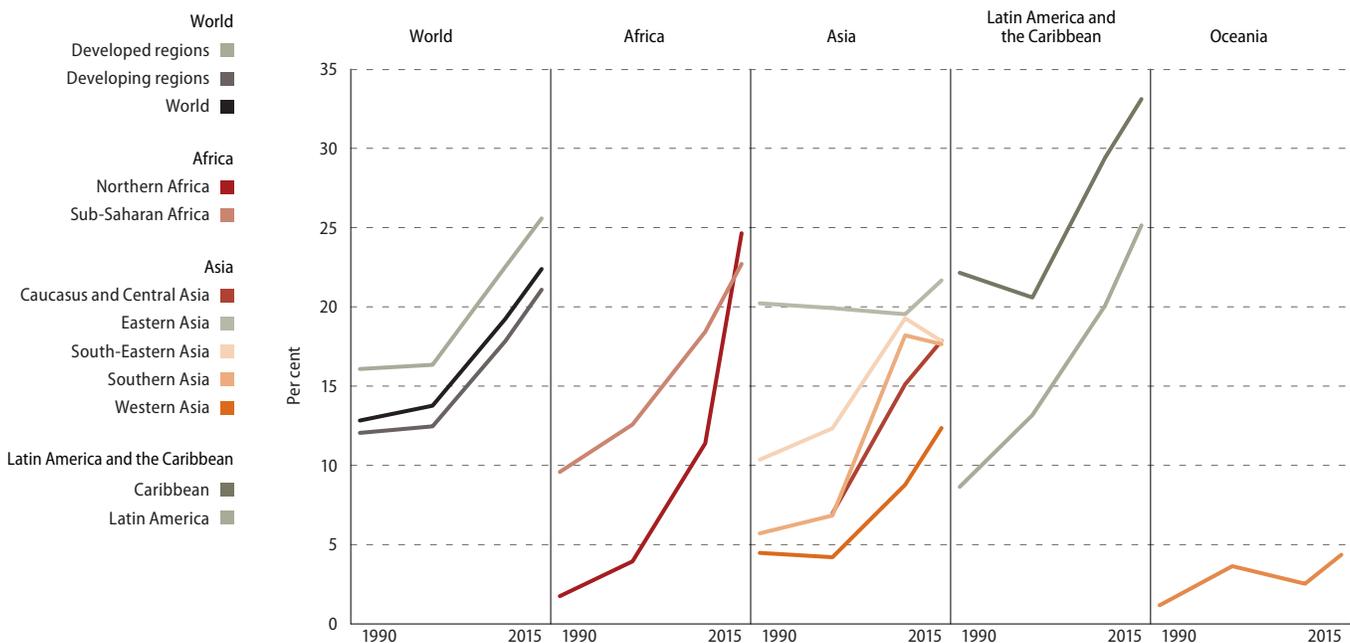
World
Developed regions
Developing regions
World

Africa
Northern Africa
Sub-Saharan Africa

Asia
Caucasus and Central Asia
Eastern Asia
South-Eastern Asia
Southern Asia
Western Asia

Latin America and the Caribbean
Caribbean
Latin America

parliaments. In five of those countries, all with a relatively small population size, no women were represented as at January 2015 (Micronesia, Palau, Qatar, Tonga and Vanuatu).

Factors affecting women's representation in parliament

Less women candidates, party dynamics favouring men, political interest and knowledge may explain women's lower participation in parliaments

Several factors may explain differences in the share of women in national parliaments across countries and over time, including: the use of legislated and voluntary party gender quotas; the representation of women in high-level positions in political parties; the supply of electoral candidates; equal access to resources in election campaigns; and gender differences in political interest and knowledge, along with gender perceptions and stereotypes.

a. Gender quotas

Gender quotas aim to reverse discrimination in law and practice and to level the playing field for women in politics. They are numerical targets that stipulate the number or percentage of women that must be included in a candidate list or the number of seats to be allocated to women in a legislature. Gender quotas may be mandated in the constitution, stipulated in a country's national legislation, or formulated in a political party statute. Typically, three types of electoral quotas are used, the first two being legislated quotas (constitutional and/or legislative) and the third one voluntary: (a) reserved seats—reserves a number of seats for women in a legislative assembly; (b) legislated candidate quotas—reserves a number of places on electoral lists for female candidates; and (c) voluntary party quotas—refers to targets voluntarily adopted by political parties to include a certain percentage of women as candidates in elections.[10]

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[10] International IDEA (International Institute for Democracy and Electoral Assistance), IPU and Stockholm University, 2013.

Gender quotas are increasingly used to improve women's representation in parliament.[11] As at 2015, 74 countries had implemented some form of legislated gender quotas for single or lower houses of national parliaments. Reserved seats are used in 20 countries, all in developing regions. This type of quota is most often implemented in sub-Saharan Africa (11 countries). Legislated candidate quotas are the most frequently used type of quota, both in developing regions (36 countries) and developed regions (13 countries). They are most often used in Latin America and the Caribbean and sub-Saharan Africa. In five countries, both reserved seats and legislated candidate quotas are used (Algeria, Iraq, Kenya, Mauritania and Rwanda[12]). Finally, voluntary party quotas are used alone in 37 countries[13] and in combination to legislated quotas in an additional 17 countries. In total, voluntary party quotas are used by 54 countries, 26 in developed regions and 28 in developing regions.

**Overall, countries using gender quotas have a higher
representation of women in parliament**

Overall, countries with any type of gender quota have higher proportions of seats held by women in lower or single houses of parliament –26 per cent for countries with voluntary party quotas, 25 per cent for countries using legislated candidate quotas and 23 per cent for countries using reserved seats, compared to only 16 per cent in countries without any type of quota (figure 5.2).

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11 *Ibid.*

12 Kenya, Mauritania and Rwanda have quota systems that include both reserved seats and legislated candidate quotas within one level/house of parliament. A number of women are elected through the system of reserved seats, while another set are elected through a legislated candidate quota. Algeria and Iraq use unique quota systems, which combine features of legislated candidate quotas and reserved seats. The weighted average of the proportions of seats held by women in the five countries with both reserved seats and legislated candidate quotas is 29 per cent (not shown in figure 5.2). Additionally, in Georgia, the legislation on political parties sets a gender quota of 30 per cent in every 10 candidates on the list, and provides for financial incentives to those parties which comply with this requirement. No sanctions are provided for parties which decide not to comply with these requirements. Due to the non-mandatory nature of these rules, Georgia is not classified as a country with legislated candidate quotas. International IDEA, IPU and Stockholm University, 2013.

13 At least one party in each country.

Figure 5.2

Proportion of seats held by women in single or lower houses of parliaments by the type of gender quota, as at 13 March 2015

— Global average
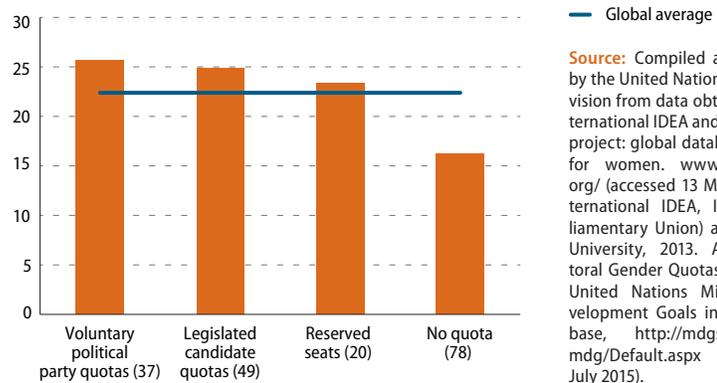
Among the 43 countries with at least 30 per cent of representation of women in the lower or single house of the parliament, 36 (84 per cent) have implemented some type of gender quotas: 18 have legislated candidate quotas; 4 have reserved seats; 2 have both, reserved seats and legislated candidate quotas; and 12 have voluntary political party quotas. At the other extreme, among 39 countries with 10 per cent or less of representation of women in the lower or single house of parliament, 28 (72 per cent) have no gender quotas implemented.

**Gender quotas have improved women's representation in
national parliaments in post-conflict settings**

The success of Rwanda in achieving the highest proportion of women ever recorded by a parliamentary chamber (64 per cent in 2015) is based on the electoral framework adopted after the 1994 genocide in that country. Under the framework, women's political representation is envisioned as one of the pillars of post-conflict reconstruction and reconciliation.[14] The electoral system in Rwanda provides for legislated quotas, both in terms of reserved seats (24 reserved seats out of 80 members in the Chamber of Deputies) and legislated candidate quotas (30 per cent women candidates for the 53 openly contested seats).[15] In the 2013 elections, women took the 24 seats reserved by the Chamber of Deputies for women, 26 of the 53 openly contested seats, and one of the two seats reserved for youth.[16]

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14 IPU, 2014.

15 International IDEA, IPU and Stockholm University, 2013.

16 IPU, 2014.

A number of other countries have also used the post-conflict reconstruction process to introduce stronger equality and non-discrimination provisions in women's political participation and representation rights, including through gender quotas. This has been the case, for example, in South Africa, as well as in Afghanistan, Bosnia and Herzegovina, Iraq, Kyrgyzstan, Libya, Serbia, the former Yugoslav Republic of Macedonia and Timor-Leste.[17]

Recently implemented gender quotas are fast-tracking women's representation in national parliaments

In recent years, gains in women's representation in single or lower houses of parliament have been linked to the implementation of legislated or voluntary party quotas during elections.[18] Some of the largest gains were observed in Africa, including in Algeria (from 8 per cent in 2012 to 32 per cent in 2013), Senegal (23 per cent in 2012 to 43 per cent in 2013), South Africa (33 per cent in 2009 to 45 per cent in 2010) and Zimbabwe (15 per cent in 2013 to 32 per cent in 2014).[19] On the other hand, in Egypt, the revocation of quota legislation in the run-up to the 2011 election resulted in a decrease of women's representation, from 13 per cent in 2010 to 2 per cent in 2011.[20]

It is important to note, however, that the impact of quotas may vary depending on the electoral system.[21] Gender quotas are more difficult to implement in "majority electoral systems" or single-winner systems. Typically in these systems each party nominates a single candidate per district and women get to compete directly with men in their constituencies. In such cases, political parties tend not to field women candidates, or to field them in constituencies where the party is less likely to succeed. By comparison, electoral systems based on "proportional representation" are more favourable to the use of legislated candidate quotas. This allows more women to be in-

cluded in the list of candidates from a party and to eventually win a seat in the parliament.[22]

Furthermore, gender quotas are more effective when they include specific, measurable numerical targets; are accompanied by rules on the fair placement of women on candidate lists; and are enforced by sanctions for non-compliance with the law. Only 57 per cent of countries and territories that have legislated candidate quotas have instituted sanctions for non-compliance with the provisions of the law and only 13 per cent provide for financial sanction. [23]

b. Political parties

Women are underrepresented in senior positions of major political parties

Gender equality in politics requires that women participate as equal members with men in political parties. Political parties are instrumental in forming future political leaders and supporting them throughout the election process. In particular, they are responsible for drawing up candidate lists, implementing legislated candidate quotas and taking up voluntary party quotas.

Yet political parties are still male-dominated at the highest levels. For instance, in European countries, only a few political parties have women as their leaders. In 2014,[24] women represented only 13 per cent of all leaders of major parties[25] in the 28 countries of the EU. In half of the EU countries, no woman leads a major political party. Among the countries with a better representation of women were Germany (3 in 7 party leaders), Denmark (2 in 6), Croatia (1 in 3) and the Netherlands (2 in 7). Other European countries with a high representation of women among party leaders included Norway (3 in 6) and Iceland (2 in 5).[26]

Similarly, in Latin American countries, few women hold senior positions in the organizational structures of political parties. On average, in 2009, women made up approximately 50 per cent of active party members in the seven countries for which data are available, but only 16 per cent of party presidents or secretaries-

17 International IDEA, IPU and Stockholm University, 2013.
18 IPU, 2010; IPU, 2011b; IPU, 2011c; IPU 2013; IPU, 2014.
19 United Nations, 2015a.
20 International IDEA, IPU and Stockholm University, 2013.
21 Most electoral systems can be classified as: "majority electoral system" (requiring that candidates achieve a majority of votes in order to win. "Majority" is normally defined as 50 per cent-plus-one-vote) and "proportional representation" (the overall votes of a party are translated into a corresponding proportion of seats in an elected body — a party that wins 30 per cent of the votes will receive approximately 30 per cent of the seats). International IDEA, IPU and Stockholm University, 2013.

22 International IDEA, IPU and Stockholm University, 2013.
23 *Ibid.*
24 As at April 2014.
25 Major political parties are those with at least 5 per cent of seats in the national parliament (either the upper or lower houses in case of a bicameral system).
26 European Commission, 2015a (database accessed 11 March 2015).

general.[27] Women also occupied only 19 per cent of the seats on national executive committees of the parties, where they were relegated to the least powerful positions. Men generally held the most senior or powerful positions, including president, secretary-general, economic secretary, and programming secretary, while women held less influential positions, including minutes secretary, archivists, or director of training or culture. This lack of gender balance in the structure of political parties was also reflected in the candidate lists offered to voters. On average, only one in every four candidates, and one in every seventh first-ranking candidates was a woman.[28]

c. Electoral systems and candidates

Women are less than 20 per cent of candidates in political elections in most developing countries

Generally, the low proportion of seats held by women in lower or single houses of parliament is a reflection of the low share of female candidates in elections (figure 5.3). This means that an insufficient number of women candidates run for national parliament. Sex-disaggregated data on candidates for the lower or single house of parliament in 99 countries with available data show that on average 28 per cent of candidates are women.[29] Among these countries, 55 have proportions lower than 20 per cent, mostly in developing regions. In Oceania, shares of women among electoral candidates lower than 10 per cent are common, with the exception of Fiji (18 per cent in the September 2014 elections) and Tonga (15 per cent in the November 2014 elections). In developed regions, the share of women among electoral candidates is higher than 20 per cent, except for Japan (17 per cent in the December 2014 elections) and Ireland (16 per cent in the February 2011 elections). Belgium and Cuba have the highest share of women among candidates at 49 per cent. They are followed by a group of countries with shares between 40 and 47 per cent: Tunisia (47 per cent), Sweden and Namibia (45 per cent), Poland (44 per cent), Andorra (43 per cent), Iceland (42 per cent) and France and Norway (40 per cent each).

27 International IDEA and IDB, 2011.
28 *Ibid.*
29 Weighted average calculated by the United Nations Statistics Division based on IPU, PARLINE database on national parliaments, www.ipu.org/parline-e/parlinesearch. asp (accessed 25 March 2015). Data for Andorra, Canada, Cyprus, Estonia, Ireland and the Lao People's Democratic Republic obtained from the IPU, 2011c. Data for Armenia, Gambia and Lesotho obtained from IPU, 2013.

Figure 5.3

Share of women among candidates for the lower or single houses of parliament in the latest election year, by the proportion of seats held by women in the lower or single house and by region, 2015

- ■ Africa
- – Asia
- △ Latin America and the Caribbean
- ✕ Oceania
- ◇ Developed regions
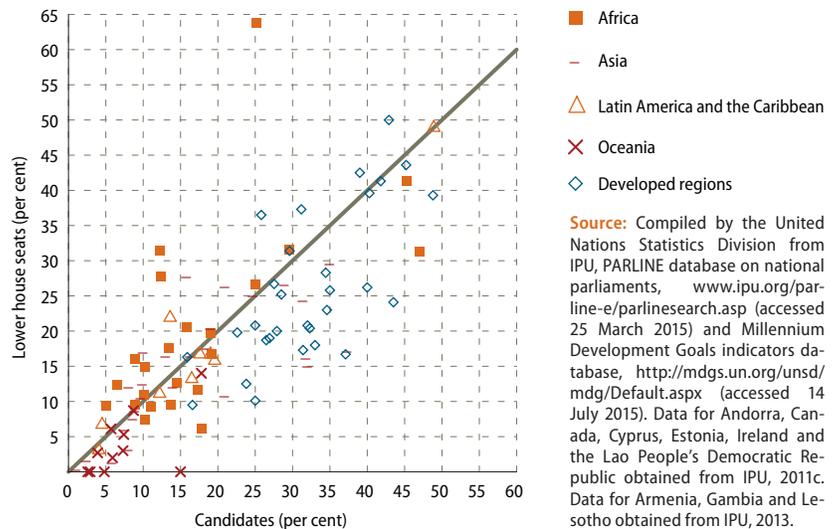
Female candidates are less likely than male candidates to win elections

In some countries, the low proportion of women in parliament is related not just to the lower proportion of female candidates but also to the lower election rates of women candidates compared to men candidates. For instance, out of 36 elections held in 35 countries for the lower or single house of parliament in 2011 or 2012, men had higher election rates than women in 18 elections, while only 10 had election rates higher for women than men. In the remaining eight elections, the rates were equal between women and men.[30]

d. Gender norms and expectations

Gender norms and expectations drastically reduce the pool of female candidates even before elections begin. Women often report less interest and knowledge in politics than men. For example, data on interest in politics for 57 countries or areas conducting World Values Surveys in 2010–2014 show that men (52 per cent) are more likely than women (42 per cent) to be interested in politics, by 10 percentage points on average. The largest differences, of at least 19 percentage points, are noted in Poland, Tunisia, Turkey, Zimbabwe and the State of Palestine. The lowest differences, of 5 percentage points or less, but still to the advantage of men, were noted in Bahrain, Colombia,

30 IPU, 2011c and IPU 2013.

Ecuador, Jordan, Kyrgyzstan, Mexico, the Philippines, Ukraine, Uruguay and Yemen.[31] Other research in 10 countries (most of them in developed regions) found that, in all of them, lower proportions of women than men were able to correctly answer questions on domestic and international news related to politics and economics.[32]

After women decide to run for office and are nominated by their parties, they face obstacles that may diminish their chances of being elected. For example, despite improvements in public attitudes towards gender equality,[33] strong gender stereotypes about women not being as good as men in positions of political leadership persist around the world. In the last round of the 'World Values Survey' people were asked whether they agreed with the statement that, on the whole, men make better political leaders than women. Answers varied greatly from country to country. At one extreme were Egypt, Ghana, Jordan, Qatar and Yemen, where more than 80 per cent of people agreed with the statement. At the other extreme, were the Netherlands, Sweden and Uruguay, where 11 per cent or less of people agreed with that statement.[34, 35]

Another obstacle to the election of women to political office is gender bias in media coverage. For instance, a study on media coverage during the 2009 and 2010 elections in Bolivia, Chile, Costa Rica, Colombia and the Dominican Republic[36] showed that women candidates were allocated less time and space in the media than their male counterparts—in particular, time related to programmatic issues—and were subject to a higher negative bias in coverage. Lack of media coverage of women candidates was also noted in countries in other regions.[37] A survey of daily election stories in the United Republic of Tanzania, for instance, revealed that men politicians dominated as both subjects and sources of election stories. In Sudan, there were reports that women were

losing out in terms of media coverage; and in Bosnia and Herzegovina, while photographs of women candidates were common, their opinions were rarely published.[38]

Table 5.1

Countries with a woman presiding over the lower or single house of parliament or upper house or senate, by region as at 1 January 2015

Lower or single house	Upper house
Africa	
Botswana	Equatorial Guinea
Mauritius	Gabon
Mozambique	South Africa
Rwanda	Swaziland
South Africa	Zimbabwe
Uganda	
United Republic of Tanzania	
Asia	
Bangladesh	
India	
Lao People's Democratic Republic	
Singapore	
Turkmenistan	
Latin America and the Caribbean	
Bolivia	Antigua and Barbuda
Dominica	Bahamas
Ecuador	Barbados
Peru	Chile
Suriname	Dominican Republic
Oceania	
Fiji	
Developed regions	
Australia	Austria
Austria	Belgium
Bosnia and Herzegovina	Netherlands
Bulgaria	Russian Federation
Italy	United Kingdom
Latvia	
Lithuania	
Netherlands	
Portugal	
Serbia	

Source: IPU and UN Women, 2015; IPU, 2015b.
Note: Out of a total 267 parliamentary chambers (lower or single and upper houses), two have an additional 2 speakers and three have 1 additional speaker, for a total of 274 speakers.

31 World Values Survey, 2015 (accessed 19 March 2015).
32 Goldsmiths University of London, 2013; Guardian (The), 11 July 2013.
33 United Nations, 2014c.
34 Answers have been aggregated for the categories "agree strongly" and "agree" based on the World Values Survey, 2015.
35 In some countries conducting World Values Surveys, the proportion of respondents who disagree with the statement: "on the whole, men make better political leaders than women do" increased since the mid-1990s. United Nations, 2014c.
36 UN Women and International IDEA, 2011.
37 IPU, 2011b.
38 *Ibid.*

Women in positions of parliamentary leadership

Once elected, women parliamentarians need to hold positions of power and authority and participate in committee work if they are to influence policy direction. They also need to be positive role models for other women, work to change parliamentary procedures and, ultimately, support women's rights and pursue gender equality. Nevertheless, few women in politics reach the higher echelons of parliamentary hierarchies, particularly at the top levels as president or speaker of the house. In 2015, women presided over the lower or single houses of parliament in only 28 out of 191 countries (or 15 per cent), and over the upper house or senate in only 15 out of 76 countries (20 per cent) (table 5.1). The highest concentration of female presiding officers was found in developed regions, followed by sub-Saharan Africa. At the opposite end of the spectrum, developing countries in Oceania, the region with the lowest share of women in parliament, have only one woman presiding in parliament (in Fiji). Developing countries in Asia have no women presiding in the upper house (or senate).

> **Women's representation among committee chairs in parliament remains low and confined to social affairs**

Committees are smaller forums of parliamentarians where members investigate the workability of legislation and government policy and make recommendations to the broader parliamentary arena. An IPU survey on parliaments conducted in 2009 and 2010 showed that men represented the majority of committee members in almost all portfolio areas, in accordance with their numerical dominance in parliament. The only exceptions were committees on women's affairs and gender equality. There, women represented 57 per cent of committee members. Although not the majority, women were found relatively more often in committees related to social affairs. Globally, the share of women in committees related to family, children, youth, older persons and persons with disabilities was 40 per cent. In education, the share was 30 per cent, and in health, 35 per cent. In other committees, women constituted between 16 and 20 per cent of members. In terms of leadership, women constituted approximately 21 per cent of committee chairs of the parliaments surveyed, and 23 per cent of deputy chair positions. Consistent with the overall composition of committees, women were most commonly chairs of committees on women/gen-

der issues or social policy. About half of women chairs were leading committees on social affairs, family and culture, and a third on legislative, justice and human rights. Women have not been completely absent as chairs of commissions traditionally held by men, including committees on the economy or foreign affairs, although their presence has been infrequent.[39]

2. Executive branch

Heads of State or Government

Very few women get to the top position of power within their government. As at March 2015, only 10 out of 152 elected Heads of State worldwide were women, and only 14 of 194 governments were headed by women (table 5.2).[40] The total number of countries with a female Head of State or Government was 19, a slight improvement over the 12 countries in 1995.[41] The vast majority of countries headed by women were from Latin America and the Caribbean and from developed regions.

Table 5.2

Countries with a female Head of State and/or Government by region, as at 17 March 2015

Head of State	Head of Government
Africa	
Central African Republic	
Liberia	Liberia
Asia	
Republic Of Korea	Bangladesh
Latin America and the Caribbean	
Argentina	Argentina
Brazil	Brazil
Chile	Chile
	Jamaica
	Peru
	Trinidad and Tobago
Developed regions	
Croatia	Denmark
Lithuania	Germany
Malta	Latvia
	Norway
	Poland
Switzerland	Switzerland

Source: Compiled by the United Nations Statistics Division from the United Nations Protocol and Liaison Service website. www.un.int/protocol/sites/www.un.int/files/Protocol%20and%20Liaison%20Service/hspmfm.pdf (accessed 19 March 2015).

Note: Only elected Heads of State have been considered. Countries with King or Queens, Governor-Generals or Sultans are excluded in the count of Heads of State.

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39 IPU, 2011a.

40 United Nations Protocol and Liaison Service website. www.un.int/protocol/sites/www.un.int/files/Protocol%20and%20Liaison%20Service/hspmfm.pdf, accessed on 19 March 2015.

41 United Nations, 2010b and IPU, 2006.

Ministers

Women continue to be underrepresented in cabinet appointments in all regions of the world. The cabinet—also called council of government, government, or council of ministers—is a group of senior officials who provide advice to the Head of State and/or Government. Globally, the share of women among cabinet ministers was 18 per cent in 2015.[42] Although low, it represents important progress since 1994, when the average share was 6 per cent.[43]

Progress among regions over the past decade has been uneven (figure 5.4) and the highest level of representation of women among ministers reached by the developed regions was only 25 per cent followed by Latin America at 23 per cent. The share of women among ministers remained low, at 15 per cent or less, in all regions of Asia, Northern Africa and Oceania.

Between 1994 and 2015, the number of countries with no female minister declined notably, from 59 countries[44] to eight. Over the same period, the number of countries with 30 per cent or more women among ministers increased from five countries to 31. In 2015, only three regions have countries reaching the 30 per cent threshold: the developed regions (18 countries), sub-Saharan Africa (8 countries), and Latin America and the Caribbean (5 countries). At the country level, only 5 countries have reached or surpassed gender parity among cabinet ministers: Finland (63 per cent), Cabo Verde (53 per cent), Sweden (52), France and Liechtenstein (50 per cent each). These countries are closely followed by Nicaragua, Norway and Netherlands (47 per cent each).

In 2015, at the global level, most of female appointed ministers were assigned portfolios related to social issues such as: social affairs; environment, natural resources and energy; women's affairs and gender equality; family, children, youth, older persons and persons with disabilities; and education. By comparison, fewer female ministers had portfolios related to finance and the budget, and the economy and development.[45] More detailed data available for selected regions[46] show that, overall, women continued to

Figure 5.4
Share of women among ministers by region, 2005–2015
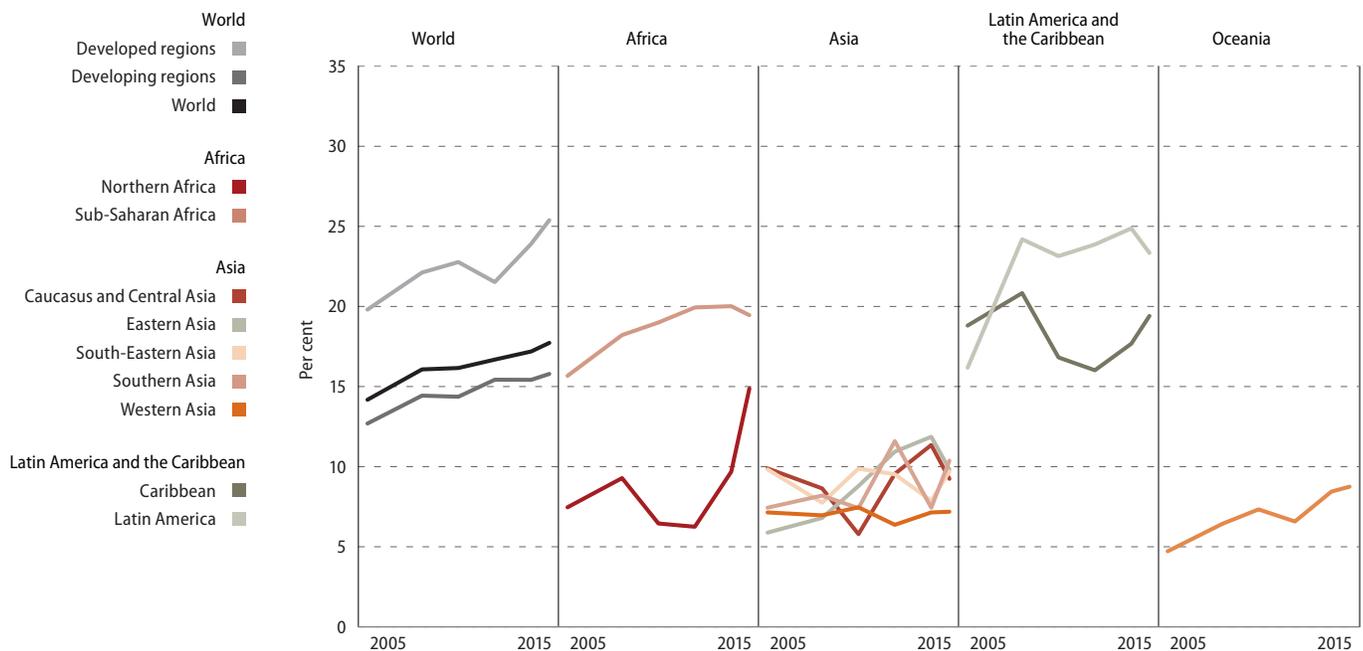
Source: Compiled and calculated by the United Nations Statistics Division from the information available in IPU and United Nations Division for the Advancement of Women, Women in Politics (2005, 2008, 2010 editions) and IPU and UN Women, Women in Politics (2012, 2014 and 2015 editions).
Note: Data as at 1 January of corresponding year.

42 Calculated by the United Nations Statistics Division based on IPU and UN Women, 2015.
43 United Nations, 1995b.
44 United Nations, 2000a.
45 IPU and UN Women, 2015.
46 UNECE, 2015 (database accessed 20 March 2015).

be underrepresented among core ministers, including the cabinet of the prime minister, and in the Ministries of Home Affairs, Foreign Affairs, Finance, Defence and Justice. There were no women among core ministers in five out of seven countries with available data in the Caucasus and Central Asia and in 15 out of 38 countries with available data in developed regions. On the other hand, women were represented among core ministers in the highest numbers in Denmark, Finland and Norway (3 out of 6), Switzerland (3 out of 7) and Sweden (2 out of 5).

Civil service

Women are underrepresented among senior-level civil servants

Women also tend to be underrepresented among senior-level civil servants,[47] including government administrators, administrators at intergovernmental organizations, ambassadors and consul-generals. The latest available data between 2006 and 2013 for 24 developed countries on senior-level civil servants indicate that the share of women in those posts ranges widely, from 16 to 77 per cent. The lowest shares of women (below 30 per cent) are observed, in ascending order, in Luxembourg (16 per cent), Belgium (17 per cent), Ireland (19 per cent), Denmark and Norway (22 per cent), France (23 per cent) and Netherlands (26 per cent). The highest shares of women (above 60 per cent) are found, in descending order, in Hungary (77 per cent), Russian Federation (62 per cent) and Bulgaria (61 per cent).[48]

Women are particularly underrepresented among the highest-ranking civil servants, including chief statisticians, governors and board members of central banks, ambassadors and permanent representatives to the United Nations.

A quarter of national statistical offices worldwide are headed by women

A particularly high-ranking administrative position in a country is that of chief statistician, the person in charge of the government entity responsible for producing official statistics. Worldwide,

as at 20 March 2015, 47 of 190 national statistical offices (25 per cent) had a woman as chief statistician.[49] Women chief statisticians were more common in Latin America and the Caribbean (39 per cent) and in the developed regions (33 per cent). Oceania is the only region with no woman among heads of national statistical offices (figure 5.5).

Figure 5.5
Proportion and list of countries or areas where the national statistical office (NSO) is headed by a woman, by region

Latin America and the Caribbean (33)	Developed regions (49)	Asia (44)	Africa (52)
Bahamas	Belarus	Bangladesh	Botswana
Brazil	Czech Republic	Brunei Darussalam	Ghana
Chile	Finland	Cambodia	Lesotho
Costa Rica	Hungary	Georgia	Mauritius
Cuba	Latvia	Kuwait	Sao Tome and Principe
Dominica	Lithuania	Lebanon	Seychelles
El Salvador	Montenegro	Maldives	United Republic of Tanzania
Haiti	New Zealand	Philippines	
Jamaica	Portugal	Singapore	
Paraguay	Republic of Moldova	Tajikistan	
Saint Kitts and Nevis	San Marino	State of Palestine	
Saint Vincent and the Grenadines	Slovakia		
Uruguay	Slovenia		
	The former Yugoslav Republic of Macedonia		
	Ukraine		
	United States		

Source: United Nations Statistics Division, Contacts database (accessed 20 March 2015).
Note: Numbers in parentheses indicate the total number of countries in the region.

Women remain excluded from central banks decision-making

Central banks, the entities responsible for overseeing a country's monetary system, are dominated by men. Worldwide, as at 3 August 2015, only 14 out of 176 central banks (8 per cent) for which data were available had a woman as governor: five in developed regions (Cyprus, Russian Federation, Serbia, Ukraine and the United States); four in sub-Saharan Africa (Botswana, Lesotho, Sao Tome and Principe and Seychelles); and the remaining five in other developing regions (Bahamas, Malaysia, Maldives, Samoa and the State of Palestine).[50]

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47 Senior-level civil servants are defined according to ISCO 1120: senior government officials (e.g. government administrators, administrators at intergovernmental organisations, ambassadors, consul-general, etc.).

48 UNECE, 2015 (database accessed 20 March 2015).

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49 United Nations Statistics Division (database accessed 20 March 2015).

50 Compiled by the United Nations Statistics Division from the database on women and men in decision-making,

Sex disaggregated data on the membership of the boards of central banks in 158 countries with available data show that on average 24 per cent of the members are women. The representation of women ranges widely, from zero per cent (in 50 out of 158 countries) to 75 per cent in Lesotho where there are 6 women out of 8 members. In addition to Lesotho, only 10 more countries have reached or surpassed parity: Swaziland (63 per cent), Jamaica (57 per cent), Albania (56 per cent), and Fiji, Israel, Namibia, Rwanda, Sao Tome and Principe, Suriname and the former Yugoslav Republic of Macedonia (50 per cent each).[51]

Finally, in 2014, women were underrepresented in key institutions of global economic governance. The share of women among the membership of boards of directors for selected intergovernmental and private financial and regulatory institutions such as the International Monetary Fund (IMF), the World Bank, the Bank for International Settlements, and the International Organization of Securities Commissions ranged from 4 to 20 per cent.[52]

Women and men do not equally represent their governments at the international level

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Male ambassadors outnumber female ambassadors in all countries for which data are available. In most of these countries, the share of female ambassadors is lower than 30 percent. The few exceptions include Finland, Germany, Slovenia and Sweden, where the share of female ambassadors is between 30 and 46 per cent.[53] Permanent representatives to the United Nations at UN Headquarters are also mainly men. Women held this position in only 40 out of 194 countries as at 11 March

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Box 5.2
Women and men in the United Nations

Women are underrepresented among senior professionals and managers within the United Nations system

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United Nations staff members are yet another category of civil servants in which women are underrepresented at the higher levels. The Beijing Platform for Action called on the United Nations to implement specific employment policies to achieve overall gender equality at the professional level and above by 2000, which was also the target date set for women to hold 50 per cent of managerial and decision-making positions in the United Nations.[a] As shown in the figure, women's participation among the professional staff of the UN system has grown steadily. In 2013, women represented 42 per cent of all UN professional staff (31,244 total staff), compared to 32 per cent in 1997 (15,192 total staff).

Women's representation is high at the junior professional level (57 per cent), but has not reached parity at any of the higher levels. Women's representation decreases as levels of decision-making and responsibility increase. They represent only 34 per cent of senior professionals and 29 per cent of senior managers. At the very top of the hierarchy, no woman has been appointed Secretary-General of the United Nations since its establishment in 1945.

The pattern of underrepresentation of women in senior management positions is observed across UN agencies, with the exception of UN Women, where the majority of staff are women and, regardless of the level, the shares of women among professionals are always higher than 60 per cent.[b]

Share of women among professional staff in the United Nations System, as of 25 April 2014

Source: Compiled by the United Nations Statistics Division from the United Nations System Chief Executives Board for Coordination (CEB) website, http://unsceb.org/content/hr-statistics-tables (accessed 25 April 2014) and from its reports on personnel statistics from 2001, 2011, 2012 and 2013 (UN documents: CEB/2003/HLCM/22, CEB/2012/HLCM/HR/16, CEB/2013/HLCM/HR/12 and CEB/2014/HLCM/HR/21).

Note: Senior management refers to grade levels D-2 and above; senior professionals to levels D-1 and P-5; mid-level professionals to levels P-4 and P-3; and junior professionals to levels P-2 and P-1.

a United Nations, 1995a.
b United Nations, 2014b.

European Commission, 2015a; and official websites from central banks (accessed August 2015).
51 *Ibid.*

52 UN Women, 2015.
53 UNECE, 2015 (database accessed 20 March 2015).

2015.[54] The developed regions have the highest absolute number of countries represented by women at the United Nations (11 out of 50 countries), followed by Asia (10 out of 45 countries) and Latin America and the Caribbean (9 out of 33 countries). Finally, women rarely hold the position of President of the General Assembly, the main organ of the United Nations where deliberations and multilateral discussions on international issues take place. Out of the 114 Assembly sessions (including special and emergency special sessions) held since 1946, only four were led by a woman as president (in 1953, 1969 and two in 2006, one regular and one emergency special session).[55]

3.   The judiciary

National courts

As at April 2015, women's representation in the judiciary varied widely across countries. Among the 76 countries with available data, the share of women among judges and magistrates varied from less than a quarter in Armenia, Azerbaijan, Japan, Nigeria, the Russian Federation, Tajikistan, Togo and the United Kingdom to more than three quarters in Jamaica, Latvia, Saint Kitts and Nevis and Slovenia. Overall, women are outnumbered by men in about half of countries.[56]

However, women's representation declines at higher levels up the judicial hierarchy. The situation is less positive for women judges in the Supreme Court, the apex of judicial power within the national judiciary. Currently, women represent the same or a higher share than men among Supreme Court judges in only a few countries and areas. This is the case, for example, in Bulgaria, Latvia, Luxembourg, Romania, Serbia, Slovakia and the former Yugoslav Republic of Macedonia (out of 34 countries with data in Europe) and in Anguilla, Antigua and Barbuda, Barbados, British Virgin Islands, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Venezuela (out of 36 countries and areas with data in Latin America and the Caribbean).[57]

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54   193 United Nations Member States plus State of Palestine. United Nations, 2015d.
55   United Nations, 2015b (website accessed 20 March 2015).
56   UNODC, 2015. Crime and criminal justice statistics, http://www.unodc.org/unodc/en/data-and-analysis/statistics/crime.html. Accessed 16 April 2015.
57   European Commission, 2015a (database accessed 11 March 2015) and UNECLAC, 2015 (website accessed 20 March 2015).

Box 5.3
Women in decision-making roles in UN conflict resolution and peace-building

The United Nations Security Council resolution 1325 (2000) on women and peace and security urges Member States to "ensure increased representation of women at all decision-making levels in national, regional and international institutions and mechanisms for the prevention, management, and resolution of conflicts". It also encourages the United Nations Secretary-General to "implement his strategic plan of action (A/49/587) calling for an increase in the participation of women at decision-making levels in conflict resolution and peace processes",[a] among others. The Commission on the Status of Women adopted agreed conclusions on the equal participation of women and men in all the decision-making processes at all levels in 1997 and 2006 and on women's equal participation in conflict prevention, management and resolution and in post-conflict peace-building in 1998 and 2004.[b] However, these decisions have yet to be fully implemented. A set of 26 indicators to monitor the implementation of resolution 1325 (2000) was designed in 2010 (S/2010/498).[c]

According to the latest report of the Secretary General on women and peace and security (S/2014/693), women are still underrepresented at decision-making levels in conflict resolution and peace processes. For example, in the 33 countries and territories reviewed in the report, women held on average 31 per cent of leadership positions in 2013, compared to 27 per cent in 2012 across 13 national human rights institutions and one ombudsperson institution. In 2013, in eight of 11 formal mediation processes, at least one negotiating delegate was a woman, compared with six of nine processes in 2012.

The situation is more severe when looking at the heads of field missions. As at 31 December 2013, women headed five out of a total of 27 (19 per cent) active UN field missions, compared with four (15 per cent) in 2012 and six (21 per cent) in 2011.[d] In peacekeeping missions, women's share of senior positions[e] has not changed since 2011, remaining at 21 per cent.

As for missions' military experts, the share of women has remained at 4 per cent over the period 2009–2014. Over the same period, the share of women among troops was at a low 3 per cent. In the case of police officers, the number of women police officers involved in peacekeeping missions rose from 9 per cent in 2009 to 16 per cent in 2014.[f]

a   United Nations, 2000b. Resolution 1325. S/RES/1325 (2000).
b   UN Women, 2014.
c   United Nations, 2010a.
d   In Côte d'Ivoire, Cyprus, Haiti, Liberia and South Sudan—all peacekeeping missions.
e   Senior positions refers to levels P-5 to D-2.
f   United Nations, 2014e.

In Europe, 37 per cent of all Supreme Court members in the 28 EU countries were women in 2014, twice as high as in 2003, when the share was 19 per cent. In all European countries, there was at least one woman on the Supreme Court. The lowest share of women among judges on the Supreme Court was in the United Kingdom, at only 8 per cent (1 out of 12). Higher up the judicial hierarchy, only 8 out of the 28 EU countries (28 per cent) had a female president of the Supreme Court in 2014,[58] almost 10 percentage points higher than the global figure (19 per cent, based on a review of 171 countries with data).[59] Among other countries in the developed regions, women represented one third of judges in the Supreme Court of the United States (headed by a male president) and almost half in Canada (where a woman also presided).

In Latin America, the share of female judges on the Supreme Court was 26 per cent in 2013. That was three times as high as in 1998, as most countries in the region have shown steady progress. Nevertheless, Panama and Uruguay still reported no female judges in the Supreme Court in 2013.[60]

International courts and tribunals

Women's representation in international courts remains limited. For instance, women are under-represented among members of European courts and tribunals. Two courts and one tribunal have been established within the EU: the European Court of Justice, the General Court and the Civil Service Tribunal. In addition, the European Court of Human Rights serves all 47 member States of the Council of Europe. The representation of women in these European judiciary bodies has remained relatively stable, although still far from parity, since 2007, with the highest representation recorded in 2014 (38 per cent) in the European Court of Human Rights (table 5.3). Furthermore, no woman has ever presided over any of these regional courts and tribunals. As for other international courts, in 2015, women represented 56 per cent of members of the International Criminal Court, while no woman was among the members of the Caribbean Court of Justice and the Inter-American Court of Human Rights (table 5.3).

Table 5.3

Number and share of women among judges in international and regional courts

	2006/07			2014/15		
	Number of Women	Total	Percentage of women (%)	Number of Women	Total	Percentage of women (%)
International						
International Court of Justice	1	15	7	3	15	20
International Criminal Court	7	18	39	9	16	56
International Tribunal for the Law of the Sea	0	21	0	1	21	5
Regional						
Caribbean Court of Justice	1	7	14	0	6	0
Andean Court of Justice	1	4	25	2	4	50
Inter-American Court of Human Rights	1	7	14	0	7	0
European Civil Service Tribunal*	1	7	14	1	7	14
European Court of Human Rights*	14	45	31	18	47	38
European Court of Justice*	6	35	17	5	28	18
European General Court*	7	27	26	6	28	21

58 European Commission, 2015a (database accessed 11 March 2015).
59 Compiled by the United Nations Statistics Division from the database on women and men in decision-making, European Commission, 2015a; and official websites from national Supreme Courts (accessed in August 2015).
60 UNECLAC, 2015 (website accessed 20 March 2015).

4. Local government

Women's participation in decision-making positions in local government is a first step in ensuring that their needs, priorities and perspectives are taken into account in local policies and budget allocations. A comparative analysis in 13 countries in Asia and Oceania found that women in local governments focus more on social issues (such as health services, poverty alleviation and community development) and have a different management style (being more inclusive, collaborative and consultative and people oriented).[61] Furthermore, another study in India found that female panchayat (local governing council) heads tend to prioritize issues surrounding the provision of drinking water while male heads tend to place more emphasis on irrigations systems.[62]

Fewer women than men hold elected positions in local government in all countries with available data (see Box 5.1 in this chapter). Elected positions in local government include mainly mayors and councillors of municipalities or their equivalent, although in some cases all tiers of government at the subnational level are taken into account.[63] In the 28 EU countries, for example, only 14 per cent of mayors or other leaders of municipal councils were women in 2013. Among all European countries with available data, the lowest share of women among mayors was observed in Cyprus and Liechtenstein, where there were no women elected mayors, and in Greece, Romania and Serbia, where less than 5 per cent of all mayors were women. At the opposite extreme, Iceland and Sweden were the only two European countries with more than a 30 per cent share of women among mayors.[64]

Women also tend to be mayors of smaller municipalities. In Italy, in 2012, for example, there were very few women mayors in municipalities with a population larger than 60,000. As the size of the municipalities declined, the percentage of those with a female mayor increased. The highest percentage of municipalities with a female mayor was observed in those with a population of less than 2,000.[65] A similar pattern was observed

in the United States, where, as at January 2015, only 245 (or 18 per cent) of the 1,392 mayors of cities with populations over 30 thousands were women. Among this group of female mayors, one oversees a city of over 2 million and another a city of 1.3 million people. The 243 remaining women are mayors of cities with populations between 30,000 and 750,000.[66]

In European countries, women have a higher representation among municipal councillors than mayors. The share of women among members of municipal councils in the 28 EU countries was 32 per cent on average in 2013. The lowest share was observed in Greece, at 16 per cent. There were 10 European countries in which at least 30 per cent of local councillors were women, with Iceland and Sweden reaching shares of 40 and 43 per cent, respectively.[67]

Women are also outnumbered by men in local governments in Latin America and the Caribbean, despite significant progress in many countries (figure 5.6). Within the region, all countries have less than 30 per cent of elected female mayors, except Nicaragua, which stands out with 40 per cent of women among elected mayors, after a surge of over 30 percentage points between 1998 and 2013. Other countries making strong advances in the share of women mayors include Cuba and Uruguay (figure 5.6). Overall, women's representation among councillors was higher, and improved more than that among mayors. Yet, only Bolivia and Dominica slightly surpassed the 40 per cent share of women among elected city councillors, and six countries surpassed the 30 per cent threshold.

In Asia and Oceania,[68] women's representation in local government[69] is below 40 per cent in all countries and areas with available data. India, Niue and Nauru have the highest share of women among elected local government members (37 per cent), followed by China (32 per cent) and Australia (30 per cent). The lowest shares of women (less than 5 per cent) are observed in

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61 UNESCAP and LOGOTRI, 2001.

62 UN Millennium Project, 2005; Chattopadhyay and Duflo, 2004.

63 Data comparability across countries may be limited by some variations in local government structures and tiers of subnational governments taken into account.

64 European Commission, 2015a.

65 Demofonti, 2012.

66 Center for American Women and Politics, Eagleton Institute of Politics, Rutgers, The State University of New Jersey (accessed 20 March 2015).

67 European Commission, 2015a (accessed 11 March 2015).

68 Analysis based on 26 developing countries and 3 developed countries. UNDP, 2014.

69 Local government includes all tiers of government below the national level. The representation of women in local government is calculated as an average of shares of women across all tiers of the subnational government.

Kiribati, Sri Lanka, the Solomon Islands, Tonga and Tuvalu.

In Western Asia, four out of six countries with data have proportions of women in local councils or municipalities higher than 20 per cent, with Iraq and Jordan at the top of the list with 25 per cent. In Northern Africa, where only data for two countries are available, Morocco stands at 12 per cent, and Egypt at 5 per cent.[70]

Figure 5.6
Share of women among elected mayors, Latin America and the Caribbean, as at 11 August 2014
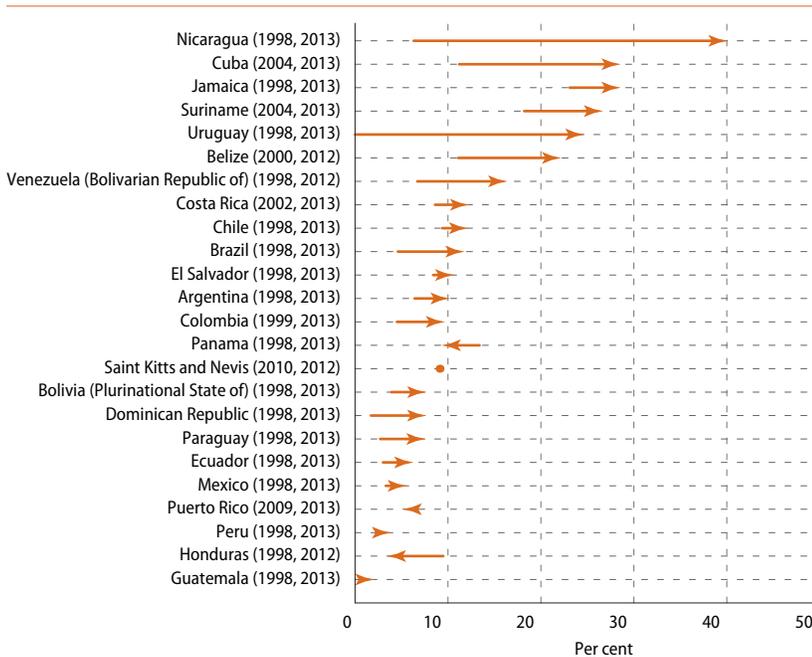
Source: UNECLAC, CEPALSTAT: databases and statistical publications, estadisticas.cepal.org/cepalstat/WEB_CE-PALSTAT/estadisticasIndicadores.asp?idioma=i (accessed 20 March 2015).

Note: Figures in parentheses indicate the years for which data are plotted. The starting point of the arrow represents the level at the earliest year and the arrow head indicates the level at the latest year.

B. The media

The media play a key role in shaping public opinions and attitudes. The Beijing Platform for Action recognizes the importance of women's expression and decision-making in and through the media, and of balancing clichéd portrayals of women in the media with non-stereotypical roles.[71] Still, 20 years after the Platform for Action was endorsed by governments, the media remain a male-dominated industry that reinforces gender stereotypes.

70   UNESCWA, 2015.
71   United Nations, 1995a.

Gender stereotypes of women continue to be reinforced by the media. For instance, a study of 120 films produced by 11 countries[72] and released between January 2010 and May 2013 highlighted striking differences in the depiction of women and men.[73] The proportions of women who were thin, partially or fully naked, and dressed in sexually revealing attire more than doubled those of men portrayed in these ways. Comments about appearance were also directed five times as often to women as to men.

The study also showed a gender bias in the portrayal of women's and men's occupations; 69 per cent of male characters were employed compared to 47 per cent of female characters. Women were less often portrayed than men as working in the fields of science, technology, engineering and mathematics. Out of 121 characters identified with a job in these fields, only 12 per cent were women. Female characters in these films were also less likely to hold executive positions in the corporate world. Out of the 127 political officials, legislators and leaders, only 12 (9 per cent) were portrayed by women. Similarly, only 11 per cent (6 out of 53) of the executives, developers and investors were female characters.

The study[74] found that films directed by women had more girls and women on screen than those without a female director or writer, suggesting that some of the gender bias in selecting and depicting a film's main characters may be partially linked to the continued male dominate of the film industry. In the study mentioned above, men represented an estimated 93 per cent of directors, 80 per cent of filmmakers, 80 per cent of writers and 77 per cent of producers.

Films are not the only media dominated by men. A study of 7,000 opinion articles in 10 media out-

72   The study included 120 films "roughly equivalent" to a Motion Picture Association of America rating of G, PG, or PG-13. Films were originally from Australia, Brazil, China, France, Germany, India, Japan, Republic of Korea, Russian Federation, United Kingdom and the United States. Smith, Choueiti and Pieper, 2014.

73   Additional studies have reached to similar results. For example, Lauzen, M. Martha (2015). It's a Man's (Celluloid) World: On-Screen Representations of Female Characters in the Top 100 Films of 2014. http://women-intvfilm.sdsu.edu/files/2014 (accessed 10 March 2015); New York Film Academy. Gender inequality in film. Blog. www.nyfa.edu/film-school-blog/gender-inequality-in-film/ (accessed 29 June 2014).

74   Smith, Choueiti and Pieper, 2014.

lets over a 12-week period between September and December 2011 showed that the vast majority were produced by men. Only 33 per cent of total articles in the Huffington Post and Salon, 20 per cent in the New York Times, Washington Post, Los Angeles Times and the Wall Street Journal, and 38 per cent of college media such as Columbia, Harvard, Princeton and Yale Universities were written by women. Nevertheless, some improvement in women's contributions to op-ed writing was noted between 2005 and 2011. For example, in the Wall Street Journal, the percentage of op-eds written by women increased from 10 to 19 per cent. In spite of the progress, a breakdown of contributions by subject reveals that women continue to author higher proportions of articles on subjects that women have traditionally written about, including gender, food, family, style and health, than men.[75] The underrepresentation of women among writers and the gender segregation by type of topic were also noted in the production of online material[76] and in other studies.[77]

The news media in general is dominated by men at all occupational levels. Overall, women represented an estimated 35 per cent of the news workforce in 2008–2010, as shown by a study of women and men in the news media covering 522 organizations (including newspapers, radio and television stations) in 59 countries.[78] The study found that women represented 36 per cent of junior-level professionals (including junior or assistant writers, producers, sub-editors, and correspondent and production assistants). The share increased to 41 per cent among senior-level professionals (including senior writers, anchors and producers). Still, the representation of women diminished at higher levels of power and decision-making. Women held only 27 per cent of the top management jobs and 26 per cent of seats on the boards of news companies.[79]

The findings above are supported by more recent data on 49 publicly-owned broadcasting organizations (television, radio and news agencies operating at the national level) in EU countries. In 2014, women represented 30 per cent of executive directors and 32 per cent of non-executive direc-

tors. They also represented 31 per cent of board members. At the very top level of power and decision-making, women held only nine out of 49 positions (18 per cent) as board president and six out of 48 (13 per cent) as chief executive officer.[80]

Gender differences are often observed in employment conditions in the news media industry. Higher proportions of men are full-time regular employees, whereas higher proportions of women are part-time regular employees or hold part-time contracts.[81]

C. The private sector

Women's underrepresentation in top positions in the private sector is increasingly perceived not only as a fairness and equality issue but also as a performance issue, since some studies show that gender diversity within corporate management is associated with improved performance.[82] Yet, women remain a minority among senior managers in the private sector. Some of the main obstacles to women's representation in managerial positions are linked to less favourable employment conditions, including the exclusion of part-time workers and irregular workers from career advancement, and inequality in sharing domestic and family responsibilities (see Chapter 4 on Work). A study showed that while women and men have similar ambitions to become top managers, women are less likely to perceive that they can succeed in doing so.[83] This is consistent with persistent gender stereotypes among the general population. The World Values Survey asked people for the 2010–2014 round whether they agreed with the statement that, on the whole, men made better business executives than women. The proportion of the population sharing this opinion ranged widely—from 8 per cent in the Netherlands and Sweden to 80 per cent in Egypt—showing that some countries still lagged behind in terms of attitudes and values towards gender equality.[84]

75 OpEd Project (The), 2012.

76 Gender Report: A Closer Look at Gender and Online News, 2013 (accessed 29 June 2014).

77 Guardian (The), 23 October 2012 (accessed 29 June 2014) and Women's media center, 2014 (accessed 29 June 2014).

78 International Women's Media Foundation, 2011.

79 *Ibid.*

80 European Commission, 2015a (database accessed 11 March 2015).

81 According to the source, part-time regular persons are those who work less than full time and are on the regular, continuing payroll of the organization; part-time contract persons are those who work part time on a fixed-term contract arrangement. International Women's Media Foundation, 2011.

82 Catalyst, 2014b; European Commission, 2012.

83 McKinsey & Company, November 2013.

84 World Values Survey (accessed 19 March 2015).

1. Managers

As shown in Chapter 4 on Work, women are less likely than men to be employed, and when employed, are less likely than men to hold managerial positions. Figure 5.7 also illustrates this point. The latest data from 59 countries show that the share of women in senior- and middle-level management positions, including both corporate managers and legislators and senior officials,[85] is not only far below 50 per cent, but also much lower than the overall share of women in employment. Only about half of the 59 countries with data on women in managerial positions have shares of 30 per cent or above. Countries with more than 40 per cent are, in ascending order, the Philippines, Latvia, El Salvador, Aruba, Belarus, the Dominican Republic and Panama. At the other extreme, countries with shares of less than 20 per cent are, in descending order, Cyprus, Liberia, Turkey, State of Palestine, Luxembourg and Cambodia.

The share of women in managerial positions, however, has increased since 1995 in many countries. Among the 25 countries with available trend data, 19 showed an increase in women's share in managerial positions. Five countries recorded an increase of at least 10 percentage points, namely, Denmark, Greece, Slovenia, Spain and Switzer-land. In five out of six countries experiencing a decrease in women's share of managerial positions, the magnitude of the decrease was small (3 percentage points or less). The only exception was Hungary, which recorded a decline of 31 percentage points between 1995 and 2013.

2. Executive boards

The share of women among corporate board members of large companies remains very low, despite the increasing number of countries passing legislation on the issue. For instance, among the 43 countries with data compiled by Catalyst,[86] Norway has the highest proportion of seats held by women on executive boards (41 per cent). Two neighbouring countries, Finland and Sweden, follow at some distance (both at 27 per cent). The shares of women on corporate boards in 7 out of 15 countries in Asia, mainly Western Asia, are the lowest (below 2 per cent) among countries with available data. Among them are Qatar, Saudi Arabia and the United Arab Emirates, with 1 per cent or fewer women on corporate boards.[87] Figures on women's representation among the chairs of corporate boards are even more discouraging. Of 42 countries with data, only eight (Israel, Italy, New Zealand, Poland, South Africa, Sweden, Turkey and the Philippines) have women at the helm of at least 5 per cent of their corporate boards.

Here again, some progress has been noted. Data compiled by Credit Suisse[88] on a selected set of 2,360 companies in 46 countries around the world showed an increase in the proportion of corporate boards with at least one woman member (from 41 per cent in 2005 to 59 per cent by end 2011). The Credit Suisse report attributes this increase to government intervention. For example, in the five years preceding the report, seven countries passed legislation mandating female board representation and eight set non-mandatory targets. In general, developed countries lead the list of countries with the highest proportions of companies with one or more women on their executive boards. In Finland, Israel and Sweden, for example, all companies included in the Credit Suisse database had at least one woman on their corporate boards in 2011. The share was around

Figure 5.7

Share of women in employment and in senior and middle management, 2009–2013
(*latest available*)
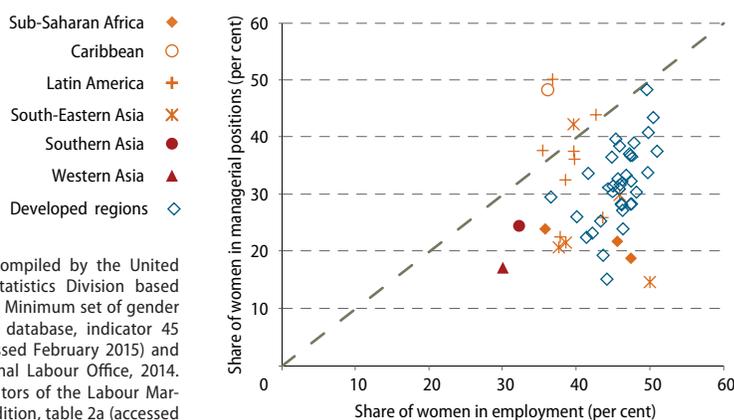
[85] Data cover senior managers from the public and private sectors. Data refer to employment under ISCO-88 categories 11 (legislators and senior officials) and 12 (corporate managers). ISCO-88 sub-major group 13—general managers—is not included in the calculation of this indicator since it mainly includes general managers of small enterprises.

[86] Catalyst is a nonprofit organization and has the mission to expand opportunities for women and business. http://www.catalyst.org/who-we-are (accessed April 2015).

[87] Catalyst, 2014a (accessed 23 March 2015).

[88] Credit Suisse AG Research Institute, 2012.

90 per cent for companies in Australia, Denmark, France, Norway, South Africa and Spain (figure 5.8).

Figure 5.8

Proportion of companies with at least one woman on their executive board in 2005 and 2011, by country

Developing regions

South Africa (49)
Thailand (20)
Hong Kong, China (93)
China (58)
Egypt (10)
Turkey (24)
Singapore (31)
India (71)
Mexico (22)
Malaysia (42)
Brazil (78)
Philippines (18)
Indonesia (25)
Chile (19)
Republic of Korea (105)

Developed regions

Finland (15)
Israel (11)
Sweden (33)
France (70)
Denmark (12)
Norway (10)
Spain (27)
Australia (68)
Germany (50)
United States (587)
United Kingdom (106)
Belgium (12)
Netherlands (24)
Canada (102)
Switzerland (38)
Poland (20)
Italy (28)
Russian Federation (26)
Japan (312)
World

0 10 20 30 40 50 60 70 80 90 100
Per cent

2005 → 2011

Source: Credit Suisse AG Research Institute, Gender Diversity and Corporate Performance, (2012).
Note: The starting point of the arrow indicates the proportion of companies with at least one woman on the board in 2005, and the arrowhead indicates the level in 2011. Numbers in parentheses indicate the number of companies reflected in the analysis.

The number of women on corporate boards varies by the economic sector in which the company operates (figure 5.9). The highest proportion of companies (23 per cent) with three or more women on their boards is observed in the "consumer staples" sector, followed by "utilities" and "telecommuni-

cations services" (each with 18 per cent). "Materials" and "information technology" are the sectors with the highest proportion of companies (53 per cent) having no women as board members, followed by "industrials" (48 per cent) and "energy" (47 per cent). In general, sectors that are closer to final consumer demand have a higher proportion of women among board members.[89]

Figure 5.9

Distribution of companies by number of women on their corporate board, by economic sector (*end-2011*)
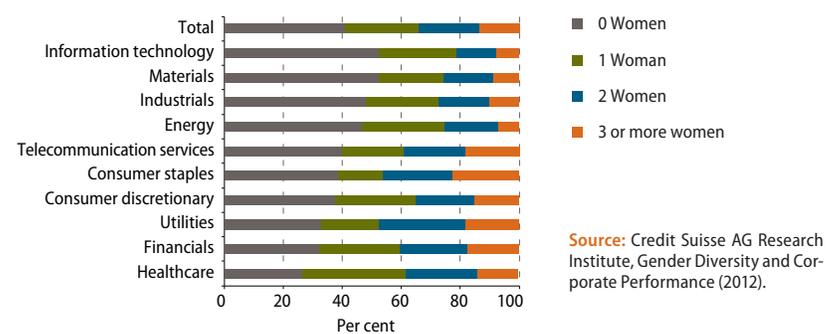
Total
Information technology
Materials
Industrials
Energy
Telecommunication services
Consumer staples
Consumer discretionary
Utilities
Financials
Healthcare

0 20 40 60 80 100
Per cent

■ 0 Women
■ 1 Woman
■ 2 Women
■ 3 or more women

Source: Credit Suisse AG Research Institute, Gender Diversity and Corporate Performance (2012).

Some countries have considered adopting regulations regarding women's representation among executive board members in private companies. A number of them in Europe, for example (Austria, Belgium, Denmark, Finland, France, Germany, Luxembourg, the Netherlands, Poland, Spain, Sweden, and the United Kingdom) have adopted self-regulations regarding the gender composition of boards.[90] In the United Kingdom, "the government has asked FTSE 100[91] companies to aim for a minimum of 25 per cent female board representation by 2015."[92] Legislation adopted in July 2011 in Italy, which requires publicly listed and state owned companies to have at least one third of the under-represented gender on both management and supervisory boards by 2015, helped double the proportion of women on the boards of Italian companies between October 2011 and October 2012 (from 6 per cent to 11 per cent). In Iceland, legislation introduced in 2010 set a deadline of September 2013 for companies with more than 50 employ-

89 *Ibid.*

90 European Commission. Women on boards Factsheets 2 Gender Equality in the Member States.

91 The FTSE 100 is a share index of the 100 largest companies listed on the London Stock Exchange (LSE) .

92 Credit Suisse AG-Research Institute, 2012.

ees to have at least 40 per cent of each gender on their board. By October 2012, the proportion of women on the boards of Iceland's largest companies had reached 36 per cent, an increase of 16 percentage points over the previous year.[93] Furthermore, the European Commission, with support from the European Parliament and a number of member States, recently proposed a target of 40 per cent of each sex as non-executive directors by 2020. In November 2013, the European Parliament voted to back the proposed directive, which as of January 2015 was under discussion by the EU Council.[94]

Examples of countries considering gender quotas for managerial positions are also found in developing regions. In Malaysia, all public and limited liability companies with over 250 employees are required to have at least 30 per cent women on their boards or in senior management positions by 2016.[95]

3. Chief executive officers

Women chief executives are uncommon in the private sector

Very few women are able to reach the position of CEO. At the global level, data confirm that the glass ceiling remains most impenetrable in the largest corporations, which are still essentially male domains. In 2014, fewer than 4 per cent of CEOs heading the world's 500 leading corporations were women.[96] Data for 2014 on women and men in managerial positions in 613 companies within the 28 EU countries illustrate how women's representation in decision-making positions within the private sector diminishes at the highest levels of power and authority. On average, women represented 21 per cent of non-executive directors. Their representation dropped to 13 per cent at the level of executive directors and plunged to 3 per cent of CEOs.[97]

Women remain severely underrepresented in the highest decision-making positions within the private sector in developed regions. The situation is unlikely to be more encouraging in developing regions, although not enough data exist to confirm or refute this. Compared to the underrepresentation of women in top leadership and decision-making positions in the government, judiciary and civil service, the situation in the private sector is even more extreme.

93 European Commission. Women on boards Factsheets 2 Gender Equality in the Member States.

94 European Commission, 2015b.

95 Credit Suisse AGResearch Institute, 2012.

96 The 500 major companies in the world are ranked based on their revenues for their respective fiscal years ending on or before the indicated year in the Global 500 list. Compiled by the United Nations Statistics Division from Fortune, 2014 (accessed 8 October 2014).

97 Data cover senior executives and non-executive directors in the two highest decision-making bodies in each company, which are usually referred to as the supervisory board and the management board (in case of a two-tier governance system) and the board of directors and executive/management committee (in a unitary system. European Commission, 2015a.

Chapter 6

Violence against women

Key findings

- Women across the world, regardless of income, age or education, are subject to physical, sexual, psychological and economic violence.

- Experience of violence can lead to long term physical, mental and emotional health problems; in the most extreme cases, violence against women can lead to death.

- Intimate partner violence accounts for the majority of women's experience of violence.

- Prevalence of sexual violence is lower than that of physical violence, however, in intimate relationships they are often experienced together.

- Attitudes towards violence are starting to change—in almost all countries where information for more than one year is available, the level of both women's and men's acceptance of violence decreased over time.

- In the 29 countries in Africa and the Middle East where the practice is concentrated, more than 125 million girls and women alive today have been subjected to female genital mutilation.

- In the majority of countries, less than half of the women who experienced violence sought help of any sort, and among those who did, most looked to family and friends as opposed to the police and health services.

- At least 119 countries have passed laws on domestic violence, 125 have laws on sexual harassment and 52 have laws on marital rape.

- Availability of data on violence against women has increased significantly in recent years—since 1995 more than 100 countries have conducted at least one survey addressing the issue.

Introduction

Violence against women is defined as any act of "gender-based violence that results in or is likely to result in physical, sexual or psychological harm or suffering to women, including threats of acts such as coercion or arbitrary deprivation of liberty, whether occurring in public or in private life."[1] Its dimensions include physical, sexual, psychological/emotional and economic violence occurring in the family and general community or such violence perpetrated or condoned by the State. Violence against women includes domestic violence, child marriage, forced pregnancy, "honour" crimes, female genital mutilation, femicide, sexual and other violence perpetrated by someone other than an intimate partner (also referred to as non-partner violence), sexual harassment (in the workplace, other institutions and in public spaces), trafficking in women and violence in conflict situations.

In all societies, to varying degrees, women and girls are subjected to physical, sexual and psychological abuse that cuts across lines of income, class and culture.[2] Such violence is recognized as a violation of human rights and a form of discrimination against women, reflecting the pervasive imbalance of power between women and men.[3]

The experience of violence can affect women in a myriad of ways that are often difficult to quantify. Injuries and health problems are common as a result of physical and sexual violence, but the psychological and emotional wounds they may also inflict are sometimes deeper and longer lasting.[4] Violence can lead to a reduced ability of a woman to work, care for her family and contribute to society. Witnessing violence in childhood can also result in a range of behavioural and

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2 *Ibid.*

3 *Ibid.*

1 United Nations General Assembly, 1993.

4 United Nations, 2006a.

Box 6.1
Gaps in gender statistics related to violence against women

The 1993 Declaration on the Elimination of Violence against Women called on States to promote research, collect data and compile statistics relating to the different forms of violence against women, especially domestic violence. It also encouraged research on the causes, nature and consequences of violence against women and on the effectiveness of measures to prevent and redress it.

Apart from a few exceptions, initially, only small-scale ad-hoc studies that were not nationally representative were available. In the early 2000s, the first initiatives to conduct dedicated, internationally comparable surveys to measure prevalence were the World Health Organization's (WHO) Multi-country Study on Women's Health and Domestic Violence against Women[a] and the International Violence against Women Survey, coordinated by the European Institute for Crime Prevention and Control. The WHO study focused on a number of specific sites in selected countries. It addressed intimate partner violence and its association with women's physical, mental, sexual and reproductive health, and was instrumental in developing and testing model questionnaires for use in surveys on violence against women. More recently, the United Nations Statistics Division has developed a set of guidelines[b] to assist national statistics offices in collecting data and compiling indicators on violence against women, which allow for more standardized and comparable analyses of levels and trends in prevalence at both the national and international levels.

In recognition of the need for better data and standardized measurements, the United Nations Statistical Commission established a "Friends of the Chair" group to identify key indicators on physical, sexual, psychological and economic violence against women.[c]

In general, surveys dedicated to measuring violence against women are better at collecting information than administrative data since, if well designed, they more accurately reflect the actual experience of violence than what is reported to officials.[d] However, implementing a dedicated survey is often costly. If a dedicated survey is not feasible, inserting a module of questions on experiences of violence into an existing survey, such as one on women's health or general victimization, is an alternative option for collecting some information, provided specific ethical and safety guidelines[e] developed for conducting a dedicated survey on this sensitive topic are taken into consideration.

The availability of data on violence against women has increased significantly in recent years. During the period 1995–2014, 102 countries conducted at least one survey addressing violence against women that produced representative results at the national level,—either as a dedicated survey (51 countries) or as a module attached to a wider survey (64 countries). Some countries implemented both types of surveys. Forty-four countries undertook a survey in the period 1995–2004 and 89 countries did so in the period 2005–2014, suggesting growing interest in this issue. More than 40 countries conducted at least two surveys in the period 1995–2014. This means that, depending on the comparability of the surveys, changes over time could be analysed. One hundred countries conducted surveys that included questions on attitudes towards violence, and 29 on female genital mutilation. This covers all countries where the practice of female genital mutilation is concentrated.

Despite the increase in the availability and quality of data on violence against women, significant challenges remain. Different survey questionnaires and methodologies are sometimes used in different countries, leading to a lack of comparability at the regional and international levels. Willingness to discuss experiences of violence may also differ according to the cultural context, and this can affect reported prevalence levels.

Police, court, social services and health statistics represent a potential source of information on violence against women that is often underutilized. However, the usefulness of such information can be mixed. Since many women do not report violence to the authorities, statistics based on reported cases significantly underestimate the phenomenon. Administrative records can be used to track victims' use of services and monitor the system's response to the problem, but even when statistics are available, the sex of the victim and relationship to the perpetrator and/or the sex of the perpetrator are often not recorded, limiting the scope of the analysis. Data on specific forms of violence, such as trafficking and harmful practices such as "honour" killings, from any source, are scarce.

a WHO, 2005.
b United Nations, 2013a.
c Adopted by the United Nations Statistical Commission in 2009, E/CN.3/2009/29. See also United Nations, 2013a for the final list of indicators.
d United Nations, 2013a.
e WHO, 2001.

Number of countries conducting surveys on violence against women, 1995–2014

Type of survey	1995–2014		1995–2004	2005–2014
	At least one survey	At least two surveys	At least one survey	At least one survey
Dedicated survey to measure violence against women	51	7	17	35
Module of questions on violence against women	64	31	25	60
Dedicated survey or module on violence against women	102	43	44	89
Survey with questions on attitudes towards violence	100	62	37	97
Survey with questions on female genital mutilation	29	25	20	27

emotional problems.[5] Women who have suffered from intimate partner violence are more likely to give birth to a low-birthweight baby, have an abortion and experience depression.[6] In some regions, they are also more likely to contract HIV, compared to women who have not experienced violence at the hands of a partner.[7] In some cases, violence against women can lead to death; about two thirds of the victims of intimate partner/family-related homicide are women, in contrast to all cases of homicide, of which 20 per cent of the victims are women.[8] Whereas other forms of homicide have shown significant declines over time, rates of intimate partner/family-related female homicide have remained relatively stable.[9]

Violence against women also incurs significant economic costs, both direct and indirect. Direct costs include those associated with the police, hospital and other health services, legal costs, and costs associated with housing, social and support services. Indirect costs include those related to reduced employment and productivity and the diminished value of a life lived with violence. A number of countries have conducted studies to estimate the economic toll of violence against women. As the methodologies used for conducting such studies vary, the real costs cannot be directly compared across countries. However they do provide an indication of the substantial economic impact of violence against women and how much needs to be spent to address the problem.[10] Globally, conservative estimates of lost productivity resulting from domestic violence range between 1 and 2 per cent of gross domestic product.[11]

A call to end all forms of violence against women was made in the Declaration on the Elimination of Violence against Women, adopted in 1993[12] and the Beijing Declaration and Platform for Action, adopted in 1995.[13] Several initiatives have been undertaken to reduce violence against

women internationally by the United Nations and others, as well as at the national level. The vision of the United Nations Secretary-General's Campaign UNiTE to End Violence against Women is "a world free from violence against women, realized through meaningful actions and ongoing political commitments of national governments, backed by adequate resources." To further draw attention to this often silenced topic, the United Nations designated 25 November as the International Day for the Elimination of Violence against Women. The General Assembly's most recent resolution on the intensification of efforts to eliminate all forms of violence against women (A/RES/69/147), adopted in 2014, calls on States to take measures towards that end in the areas of laws and policies, prevention, support services and responses, as well as data collection and research, with a special focus on women facing multiple forms of discrimination. In the same year, the Council of Europe Convention on Preventing and Combating Violence against Women and Domestic Violence (CETS No. 210, known as the Istanbul Convention) entered into force. The Convention sets out a legal framework and approach to address violence against women, focused on preventing domestic violence, protecting victims and prosecuting offenders.

This chapter presents an overview of the prevalence of women's experience of physical and sexual violence, an examination of intimate partner violence and attitudes towards violence. It is followed by a review of forms of violence in specific settings—female genital mutilation, violence in conflict situations and the trafficking of women. It concludes with a look at help-seeking behaviour and state response to violence. In preparing this issue of *The World's Women*, the United Nations Statistics Division undertook a compilation of data collected by surveys addressing violence against women. While every effort was made to incorporate as many surveys as possible, some of them could not be included due either to the timing of their release or the lack of available data for some other reason. Precise definitions and exact methodologies used may vary among data sources. The complete list of surveys and key results are presented in the Statistical Annex.[14]

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5   *Ibid*.

6   WHO, 2013a.

7   *Ibid*.

8   UNODC, 2013.

9   *Ibid*.

10 For example, a study in the United Kingdom examined the cost categories of justice, health care, social services, housing, legal services, lost output, and pain and suffering. The study estimated the cost of domestic violence in England and Wales alone to be US$25 billion per year. Walby, 2009.

11 World Bank, 2014.

12 United Nations General Assembly, 1993.

13 United Nations, 1995.

14 See Statistical Annex available at http://unstats.un.org/unsd/gender/worldswomen.html.

Box 6.2

Measuring violence against women in Canada using complementary data sources

Canada's national statistics office, Statistics Canada, uses two complementary data sources to measure violence against women nationally: police-reported administrative surveys and population-based self-reported victimization surveys. These two sources of information have made important advances over the past 30 years, making it possible to better understand the issue and how it differs from violence against men.

Since 1962, aggregate police statistics have been collected in Canada, although it was not until 1988 that collection began of micro-data on the criminal event (including the weapon used and location of the event), on victims (including their sex, age and relationship to the accused) and the accused (including sex and age). This information, collected along with the Incident-based Uniform Crime Reporting Survey, has shed light on the nature and extent of police-reported violence against women in Canada. In addition, the mandatory nature of the survey, along with the use of common definitions across the country, has meant that data on violence against women are nationally representative and comparable over time and across regions. The survey has also been critical in providing insight into how gender-based violence is treated within the criminal justice system, since information is also captured on clearance and charge rates.

The main limitation of police-reported surveys is that they only include those incidents that come to the attention of police, which is not always the case for intimate partner and sexual violence. To address this gap, Canada turned to victimization surveys to get a better sense of the extent of victimization and reasons why people may choose to report or not report an incident to the police. Since 1988, the Canadian General Social Survey on Victimization has been conducted every five years on a representative sample of women and men aged 15 years and older. As with police-reported surveys, self-reported surveys have evolved over time to address data gaps on violence against women.

In 1993, Statistics Canada became one of the first national statistics offices to develop and implement a gender-specific survey on violence, providing the first national indicator of spousal violence against women. Statistics Canada built on the success of this one-time dedicated survey to ensure that the measurement of violence against women would be embedded within an existing survey structure. Modelled on the Violence against Women Survey, a special module on spousal violence was developed within the General Social Survey on Victimization. The broader target population (both women and men) expanded the potential for gender-based analysis and has improved the understanding of violence against both women and men. For instance, results from the victimization survey have shown that while rates of spousal violence against women and men are similar, women are more likely than men to experience the most severe forms of such violence and suffer more chronic abuse, injuries and emotional trauma. Such information has helped guide the development of policies and programmes that better address the unique needs of women.

Source: Statistics Canada.

A. Prevalence of the main forms of violence against women

Violence against women is found in all countries to varying degrees. A number of factors can increase the risk of violence against women and girls. These include: witnessing or experiencing violence in childhood, low levels of education, limited economic opportunities, substance abuse, attitudes that tolerate violence, and limited legislative frameworks for preventing and responding to violence.[15]

A number of initiatives have attempted to assess the scale of the problem at the international, regional and national levels. At the international level, WHO estimates that over a third (35 per cent) of women worldwide have experienced physical and/or sexual violence by an intimate partner or sexual violence by a non-partner at some point in their lives.[16]

A recent United Nations Multi-country Study on Men and Violence in Asia and the Pacific[17] found that nearly half of the more than 8,000 men interviewed reported using physical and/or sexual violence against a female partner, with the proportion of men reporting such violence ranging from 26 to 80 per cent across sites. In all six countries included in the study, the majority (between 65 and 85 per cent) of men who reported using physical or sexual violence against a partner had committed such violence more than once.

As noted earlier, definitions and methodologies used to collect data on violence against women can vary across countries. Therefore, for comparability purposes, in this chapter, data are presented according to data sources—results from Demographic and Health Surveys (DHS) and Reproductive Health Surveys (RHS) appear together, and results from the recent survey conducted by the European Union (EU) Agency for Fundamental Rights (FRA) are presented together. The EU FRA study was conducted across the 28 Member States of the EU in 2012.

It should be noted that although countries are ranked within each region, this is for presentation purposes only. Ranking should not be seen as absolute ranking since, even in the case of similar survey instruments, data may not be fully comparable and the level of underreporting is likely to be different from one country to another due to many factors, including stigma surround-

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15 End Violence Against Women Now, 2014.

16 WHO, 2013a.

17 UNDP, UNFPA, UN Women and UNV, 2013.

ing violence and prevailing social norms in different contexts. Finally, data on violence against women from other sources for selected countries, including those based on victimization surveys, are presented (alphabetically) in dedicated tables.

1.   Violence against women by all perpetrators

Physical violence against women

Physical violence consists of acts aimed at physically hurting the victim and include, but are not limited to, pushing, grabbing, twisting the arm, pulling the hair, slapping, kicking, biting or hitting with the fist or object, trying to strangle or suffocate, burning or scalding on purpose, or attacking with some sort of weapon, gun or knife. The proportion of women who experienced physical violence (regardless of the perpetrator) at least once in their lifetime and in the last 12 months is presented in , figure 6.2 and table 6.1.

For countries with available DHS data (figure 6.1), the proportion of women experiencing physical violence in their lifetime ranged from 13 per cent in Azerbaijan (2006) to 64 per cent in the Democratic Republic of the Congo (2007). For physical violence experienced in the 12 months prior to the survey, prevalence ranged from 6 per cent in the Comoros (2012) to 56 percent in Equatorial Guinea (2011).

Physical violence is high in Africa

Based on available data, reported prevalence of physical violence was highest in Africa, with almost half of countries reporting lifetime prevalence of over 40 per cent. The range of prevalence was widest in Africa, from 14 per cent in Comoros (2012) to 64 per cent in the Democratic Republic of the Congo (2007). The range of lifetime physical violence in Asia was narrower, from 13 per cent in Azerbaijan (2006) to almost 40 per cent in Timor-Leste (2009–10). Data availability is higher in Africa than in other regions.

Among countries for which comparable data are available for multiple years, a number of them showed encouraging declines in the prevalence of physical violence experienced in the past 12 months, including Cameroon (from 45 per cent in 2004 to 27 per cent in 2011) and Uganda (from 34 per cent in 2006 to 27 per cent in 2011). However, results for the majority of countries revealed that the prevalence of violence stayed almost constant, reflecting the persistence of the problem (see Statistical Annex).[18]

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18   Available at http://unstats.un.org/unsd/gender/worlds-women.html.

Figure 6.1

Proportion of women aged 15–49 years experiencing physical violence (irrespective of the perpetrator) at least once in their lifetime and in the last 12 months, 1995–2013 (*latest available*)
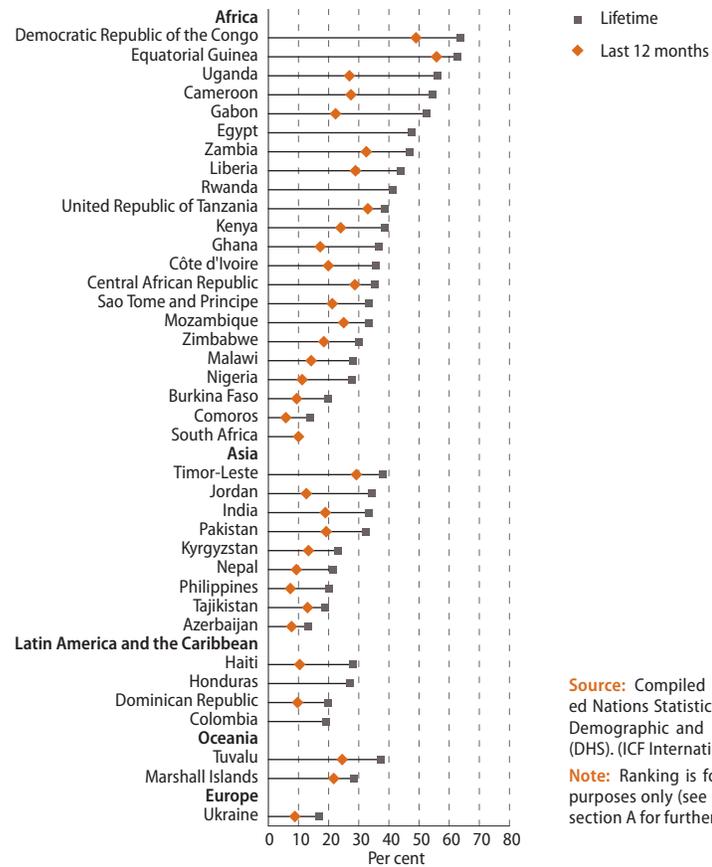
Source: Compiled by the United Nations Statistics Division from Demographic and Health Surveys (DHS). (ICF International, 2014).

Note: Ranking is for presentation purposes only (see introduction to section A for further details).

Figure 6.2

Proportion of women aged 18–74 years experiencing physical violence (irrespective of the perpetrator) at least once in their lifetime and in the last 12 months, European countries, 2012
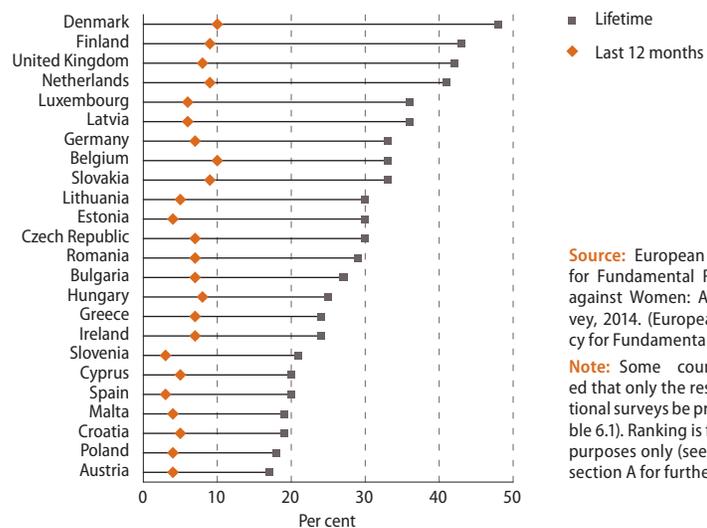
Source: European Union Agency for Fundamental Rights, Violence against Women: An EU-wide Survey, 2014. (European Union Agency for Fundamental Rights, 2014).

Note: Some countries requested that only the results of their national surveys be presented (see table 6.1). Ranking is for presentation purposes only (see introduction to section A for further details).

Table 6.1

Proportion of women experiencing physical violence (irrespective of the perpetrator) at least once in their lifetime and in the last 12 months, 2003–2012 (*latest available*)

Country	Year	Lifetime	Last 12 months
Australia	2012	34.0	4.6
Canada	2009	..	3.4
China, Hong Kong SAR	2005	12.0	2.0
Costa Rica	2003	47.0	11.0
Denmark	2013	..	1.1
Ecuador	2011	38.0	..
Fiji	2010/11	68.5	..
Finland	2013	..	14.5
France	2007	..	1.8
Iceland	2008	29.8	2.1
Italy	2006	18.8	2.7
Mexico	2011	15.2	6.4
Morocco	2009/10	35.3	15.2
Poland	2004	30.0	5.1
Singapore	2009	6.8	1.0
Sweden	2012	..	1.3
Switzerland	2003	27.0	1.0
Tonga	2009	76.8	..
Tunisia	2010	31.7	7.3
Viet Nam	2010	35.2	..

Source: Compiled by the United Nations Statistics Division from national surveys on violence against women, correspondence with National Statistical Offices.

Note: Age groups covered differ among countries; methodologies, questionnaire designs and sample sizes used in surveys by statistics offices to produce national data may differ from those used in internationally conducted surveys.

For countries included in the EU FRA survey (figure 6.2), half of them reported lifetime prevalence of physical violence of at least 30 per cent. The range of lifetime violence ranged from 17 per cent in Austria to 48 per cent in Denmark, however, recent experience (in the past 12 months) was much more similar across the region, ranging between 3 and 10 per cent.

For other countries and areas that conducted national surveys on violence against women (table 6.1), the range of reported levels of lifetime experience of violence was very wide—from 7 per cent in Singapore (2009) to 77 per cent in Tonga (2009). Out of the 15 countries reporting lifetime physical violence, 9 reported prevalence of at least 30 per cent. Experience of violence in the past 12 months was generally much lower than lifetime experience, with prevalence of less than 10 per cent in all but three countries: Costa Rica (2003), Finland (2013) and Morocco (2009/10).

Sexual violence against women

Sexual violence is defined as any sort of harmful or unwanted sexual behaviour that is imposed on someone. It includes acts of abusive sexual contact, forced engagement in sexual acts, attempted or completed sexual acts with a woman without her consent, sexual harassment, verbal abuse and threats of a sexual nature, exposure, unwanted touching, and incest.

In general, the prevalence of sexual violence when measured in surveys is lower than that of physical violence. However, in the case of intimate partner violence, sexual violence is often experienced along with physical violence. The proportion of women who experienced sexual violence (regardless of the perpetrator) at least once in their lifetime and in the past 12 months is presented in , figure 6.4 and table 6.2.

Figure 6.3

Proportion of women aged 15–49 years experiencing sexual violence (irrespective of the perpetrator) at least once in their lifetime and in the last 12 months, 1995–2013 (*latest available*)
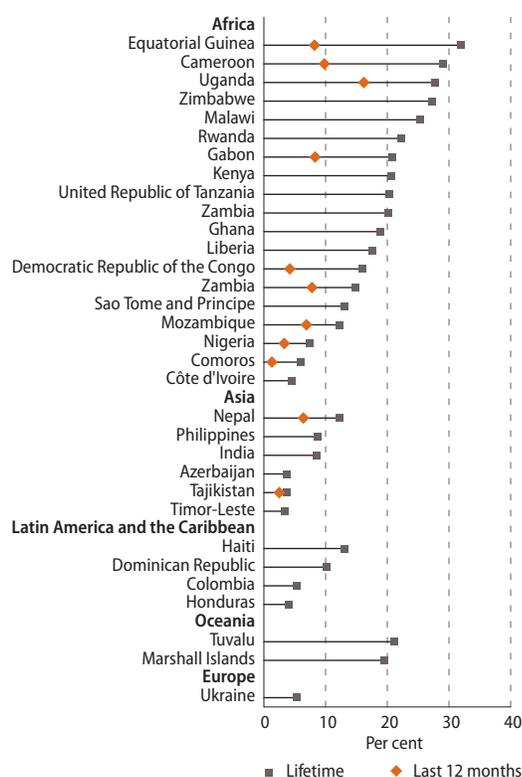

Source: Compiled by the United Nations Statistics Division from Demographic and Health Surveys (DHS). (ICF International, 2014).

Note: Ranking is for presentation purposes only (see introduction to section A for further details).

Figure 6.4

Proportion of women aged 18–74 years experiencing sexual violence (irrespective of the perpetrator) at least once in their lifetime and in the last 12 months, European countries, 2012
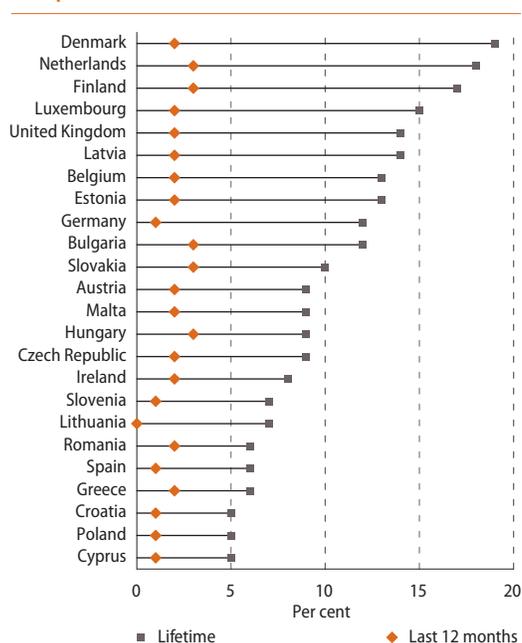
Source: European Union Agency for Fundamental Rights, Violence against Women: An EU-wide Survey, 2014. (European Union Agency for Fundamental Rights, 2014).

Note: Some countries requested that only the results of their national surveys be presented (see table 6.2). Ranking is for presentation purposes only (see introduction to section A for further details).

Table 6.2

Proportion of women experiencing sexual violence (irrespective of the perpetrator) at least once in their lifetime and in the last 12 months, 2003–2012 (*latest available*)

Country	Year	Lifetime	Last 12 months
Australia	2012	19.0	1.2
Canada	2009	..	2.0
China, Hong Kong SAR	2005	14.0	3.0
Costa Rica	2003	41.0	7.0
Ecuador	2011	25.7	..
Fiji	2010/11	35.6	..
Finland	2013	..	2.3
France	2007	..	0.7
Iceland	2008	24.2	1.6
Italy	2006	23.7	3.5
Mexico	2011	38.9	20.8
Morocco	2009/10	22.6	8.7
Poland	2004	16.5	1.6
Republic of Korea	2013	19.5	2.7
Singapore	2009	4.2	0.3
Sweden	2012	..	1.4
Switzerland	2003	25.0	1.0
Tonga	2009	17.4	..
Tunisia	2010	15.7	7.4
United Kingdom (England and Wales only)	2012/13	19.1	2.0
United States of America[a]	2011	19.3	1.6
Viet Nam	2010	10.8	..

Source: Compiled by the United Nations Statistics Division from national surveys on violence against women, correspondence with National Statistical Offices.

Note: Age groups covered differ among countries; methodologies, questionnaire designs and sample sizes used in surveys by statistics offices to produce national data may differ from those used in internationally conducted surveys.

[a] Refers to rape only.

Experience of sexual violence is highest in the African region

For African countries with available DHS data (figure 6.3), the proportion of women experiencing sexual violence in their lifetime ranged from 5 per cent in Côte d'Ivoire (2011/12) to 32 per cent in Equatorial Guinea (2011). For sexual violence experienced in the 12 months prior to the survey, prevalence ranged from less than 1 per cent in Comoros (2012) to 16 per cent in Uganda (2011). Reported lifetime prevalence rates were higher across Africa than other regions—more than half of the 19 countries across Africa with data reported prevalence of at least 20 per cent. Across all the other regions only one country reported prevalence over 20 per cent (Tuvalu, 2007). The range of lifetime prevalence was lower across the Asian and Latin American and Caribbean regions—from 4 to 13 per cent. Similar to physical violence, data availability for sexual violence is higher in Africa than in other developing regions.

For countries included in the EU FRA survey (figure 6.4), the proportion of women experiencing sexual violence in their lifetime ranged from 5 per cent in Cyprus, Poland and Croatia to 19 per cent in Denmark, with almost half of countries reporting lifetime prevalence of at least 10 per cent. Recent experience (in the past 12 months) was very similar across the region—ranging from less than 1 per cent to 3 per cent.

Among other countries and areas that conducted national surveys on violence against women (table 6.2), more than a quarter reported lifetime prevalence of sexual violence of at least 25 per cent. Experience in the past 12 months was less than 10 per cent in all countries with the exception of Mexico (21 per cent, 2011).

a. Non-partner sexual violence

Sexual violence can be perpetrated by women's intimate partners or non-partners. In general, data availability is higher for sexual violence perpetrated by an intimate partner. However, available data suggest that, at the global level, an estimated 7 per cent of women have experienced sexual violence perpetrated by someone other than an intimate partner in their lifetime.[19]

In countries for which DHS data are available (figure 6.5), lifetime experience of sexual violence perpetrated by someone other than an intimate partner ranged from less than 1 per cent in India (2005–06), Kyrgyzstan (2012), Nepal (2011) and Timor-Leste (2009) to 5 per cent in Cameroon (2011) and Gabon (2012). In countries included in the EU FRA survey (figure 6.6), it ranged from 1 per cent in Greece to 12 per cent in the Netherlands.

Aside from those countries covered in DHS or EU FRA surveys, very few additional countries have data available for non-partner sexual violence. An exception is the Pacific region, where a recent round of surveys based on WHO methodology for measuring violence against women included questions on non-partner sexual violence, revealing lifetime rates as high as 33 per cent in Vanuatu in 2009.[20]

Figure 6.5

Proportion of women aged 15–49 years experiencing sexual violence perpetrated by someone other than an intimate partner at least once in their lifetime, 1995–2013 (*latest available*)
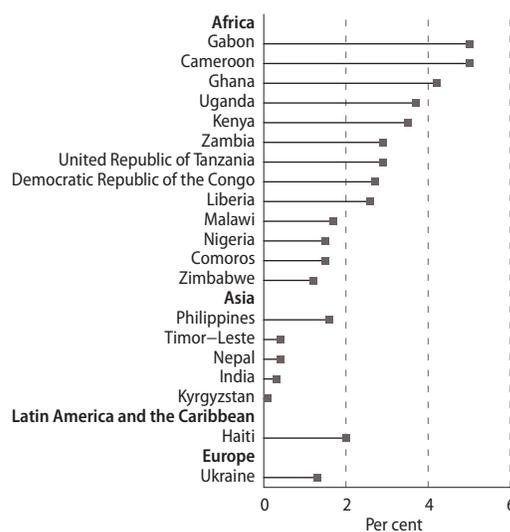
Source: Compiled by ICF International based on Demographic and Health Surveys (DHS). (ICF International, 2014).

Note: Ranking is for presentation purposes only (see introduction to section A for further details).

Figure 6.6

Proportion of women aged 18–74 years experiencing sexual violence perpetrated by someone other than an intimate partner at least once in their lifetime, European countries, 2012
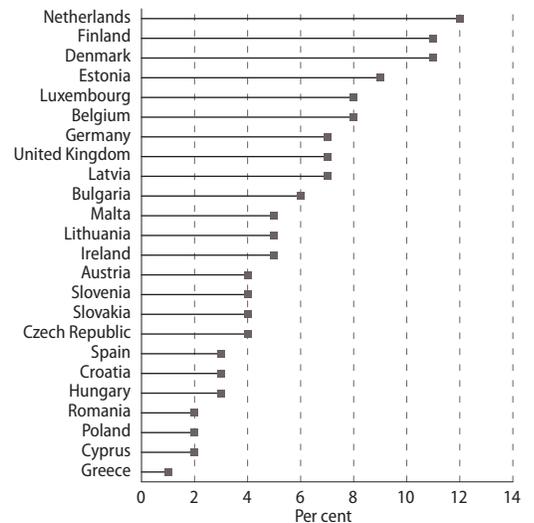
Source: European Union Agency for Fundamental Rights, Violence against Women: An EU-wide Survey, 2014. (European Union Agency for Fundamental Rights, 2014).

Note: Some countries requested that only the results of their national surveys be presented. Ranking is for presentation purposes only (see introduction to section A for further details).

Violence among vulnerable groups

Violence against women is a widespread and systemic violation of human rights. It affects women and girls at all stages of the lifecycle—from female infanticide and genital mutilation to forced prostitution and trafficking, domestic violence, sexual harassment at work, and abuse and neglect of older women. Violence affects all population groups; however, some groups of women may be more vulnerable than others, such as indigenous women, or face particular types of violence at different stages of their lives, either as children or in later life.

a. Violence against girls

Violence against children[21] is a worldwide phenomenon. What makes it especially intractable is the fact that some forms of it, such as corporal punishment of children by their parents, are

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19   WHO, 2013a.

20   Vanuatu Women's Centre, 2011.

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21   The Convention on the Rights of the Child (Article 1) defines a "child" as a person below the age of 18. However, surveys on violence against children have covered different age ranges. There is no international consensus on the methodology for collecting data on this sensitive issue, including on the target population.

widely accepted. That said, all forms of violence against children are a violation of their human rights. Violence against girls, in particular, can have a ripple effect throughout society, leading to lower school attendance and achievement, which is linked to higher fertility rates as well as reduced health outcomes for both women and their children.[22]

Wide gaps are found in the data on violence against children. No international standards exist for data collection on the issue, which is generally underreported and undocumented. Compounding the problem is the fact that collecting information on violence against children presents numerous methodological and ethical challenges. Children may be unwilling or, depending on their age and level of development, unable to share their experiences of violence. Moreover, accessing children in the first place may be problematic since consent is often required by the parent or caregiver, who, in some cases, may be the perpetrator of the violence. Ethical issues include the potential for children to become emotionally affected by questions about violence, regardless of whether they have been victimized, and victims of violence can be re-traumatized by being questioned about their experiences. Data from administrative sources, when available, may not be accessible due to confidentiality issues, and different social services may use different approaches for tracking cases of abuse that often cannot be combined or compared.

Despite these challenges, efforts are under way to collect data on violence against children. For example, Violence against Children Surveys (VACS) have been conducted in Kenya, Swaziland, the United Republic of Tanzania and Zimbabwe. Based on these surveys, it was found that 66 per cent of women aged 18 to 24 in Kenya (and 73 per cent of men), and 64 per cent of women in Zimbabwe (and 76 per cent of men) reported incidents of physical violence prior to age 18. In the United Republic of Tanzania, 74 per cent of females aged 13 to 24 (and 72 per cent of males) said they experienced physical violence before age 18, perpetrated by a relative, authority figure or intimate partner. The United Nations Children's Fund (UNICEF) reports that for countries with available and comparable data, use of violent discipline (psychological aggression and/or physical

punishment) in the home ranges from 45 per cent in Panama to almost 95 per cent in Yemen.[23]

For children growing up outside the home, violence can be commonplace. Rates of violence against children living in institutional care in Kazakhstan—which has the highest rate of children in institutional care in the world—can be up to six times higher than those of children living in family-based foster care.[24]

An extreme form of physical violence against girls is female genital mutilation. This is a topic that is covered in a separate section of this chapter since it is a unique form of violence that tends to occur in specific countries and contexts.

In addition to suffering violence at the hands of parents, authority figures and intimate partners, children also experience violence inflicted by their peers—other children. Bullying exists everywhere and can be physical and/or psychological in nature. Research suggests[25] that boys are more likely to favour physical violence as a bullying tactic, while girls tend to use psychological violence. New forms of bullying are emerging, including through cell phones and the Internet. Cyber-bullying includes the distribution of sexually explicit photos and videos taken of children to embarrass and shame them. The widespread access to these images and the difficulty in removing them permanently from the Internet means that this type of abuse can have long-lasting consequences.

Child marriage (marriage before the age of 18) is also found throughout the world and is acknowledged to be a harmful practice, as well as a manifestation of discrimination against women and girls. More than 700 million women alive today (aged 18 years and older) were married before the age of 18[26] (see Chapter 1 on Population and Families). More than one in three of these women married or entered into union before age 15. Boys are also married as children, but girls are disproportionately affected and are often married to men significantly older than themselves. In Niger, for example, 77 per cent of women aged 20 to 49 were married before age 18, compared to 5 per cent of men in the same age group. Child marriage is most common in South Asia and sub-Saharan Africa, with India accounting for one third of the global total of

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22 UNICEF, 2014a.

23 *Ibid.*
24 *Ibid.*
25 *Ibid.*
26 UNICEF, 2014b.

child brides. Girls in the poorest 20 per cent of the population (poorest quintile) are much more likely to marry at a young age compared to those in the wealthiest quintile, and girls living in rural areas are more likely than those in urban areas to marry young. On a more positive note, the practice of child marriage is declining, especially among girls under age 15. One in four women alive today was married in childhood compared to one in three in the early 1980s.[27]

In terms of sexual violence, UNICEF reports that around 120 million girls and women under age 20 have been subjected to forced sexual intercourse or other forced sexual acts at some point in their lives.[28] In a review of the prevalence of child sexual abuse,[29] drawn from 55 studies from 24 countries, it was found that levels ranged from 8 to 31 per cent among females and from 3 to 17 per cent among males.[30] Based on results from DHS, the percentage of women whose first sexual intercourse was forced against their will ranged from 1 per cent in Timor-Leste (2009–2010) to 29 per cent in Nepal (2011). [31] Although most sexual violence takes place in the home, girls are generally more likely than boys to experience sexual violence while travelling to and from school, highlighting the need for adequate measures to enable girls to attend school safely.[32]

Girls continue to be vulnerable to sexual violence as they continue their education and attend college. In the United States, the White House has established a Task Force to Protect Students from Sexual Assault. In its report on the issue published in April 2014, the Task Force asserted that "one in five women is sexually assaulted while in college".[33] It also found that the perpetrator is usually someone the victim knows and that, very often, the victim does not report the assault. The Task Force is encouraging colleges to investigate and act upon this problem, providing toolkits for colleges to conduct surveys on sexual assault, establishing awareness and prevention programmes, and setting out necessary steps for an effective response.

b. Violence against older women

Although violence peaks in women's reproductive years, it persists as women age. Neglect, abuse and violence were identified as important issues affecting the well-being of older persons[34] during the Second World Assembly on Ageing in Madrid in 2002. These issues were reflected in the Madrid International Plan of Action on Ageing, and highlighted the fact that older women "face greater risk of physical and psychological abuse due to discriminatory societal attitudes and the non-realization of the human rights of women."[35] To draw attention to the global issue of abuse against older people, the United Nations designated 15 June as World Elder Abuse Awareness Day. In addition, to raise awareness of the unique challenges faced by widows, it adopted 23 June as International Widows' Day.

Violence against older women may take the form of physical, sexual or psychological abuse, as well as financial exploitation or neglect perpetrated by intimate partners, family members, or caregivers. Risk factors include residence in an institution or mental/physical impairment. In many countries, institutions established to provide care for older women and men are not managed properly and low standards of care go unchecked.[36]

In many instances, the issue of violence against older women is not given the attention it deserves. Sometimes this bias is reflected even in data collection methods and indicators, leading to significant data gaps for older women. Such gaps are becoming increasingly important as countries deal with their ageing populations. For example, the DHS, which are an important source of information on violence against women, include only women aged 15 to 49 in their sample. Surveys conducted to measure violence against women are typically household-based, meaning that the experiences of older women living in institutions that care for the older persons are not included.

27 *Ibid.*

28 UNICEF, 2014a.

29 Refers to those less than 18 years of age.

30 UNICEF, 2014a.

31 Statistical Annex, available at http://unstats.un.org/unsd/gender/worldswomen.html.

32 UNICEF, 2014a.

33 White House Task Force to Protect Students from Sexual Assault, 2014; *Journal of American College Health*, 2009; Krebs and others, 2007.

34 For statistical purposes, unless otherwise specified, the term "older person" in this chapter refers to those aged 60 and over. However, definitions at the national level can vary.

35 United Nations, 2002.

36 United Nations, 2013b.

c. Violence against indigenous women and girls

Research has shown that indigenous girls, adolescents and young women face a higher prevalence of violence, harmful practices, and labour exploitation and harassment than other girls and women. In Bolivia, 62 per cent of the population is indigenous, and the country's departments of Chuquisaca, Cochabamba, La Paz, Potosí and Oruro have the highest concentrations of indigenous people.[37] DHS data show that ever-married girls and women aged 15 to 49 from Potosí have the highest prevalence of reported physical or sexual violence by a current or former partner (29 per cent) compared to the national average (24 per cent). In India, the proportion of the population belonging to 'Scheduled Tribes' (an official term used in that country to refer to specific indigenous peoples) is high in all northeastern states except Assam and Tripura. The 2005–2006 DHS in India found that nearly half (47 per cent) of ever-married girls and women aged 15 to 49 belonging to 'Scheduled Tribes' reported experiences of emotional, physical or sexual violence committed by their husbands, compared to 40 per cent of the total population. In Canada, according to data from the 2009 General Social Survey, the rate of self-reported violent victimization of Aboriginal women was around 2.5 times higher than that of non-Aboriginal women.[38] Moreover, Aboriginal women were more likely than non-Aboriginal women to say they feared for their lives as result of spousal violence.

Violence against indigenous girls and women cannot be separated from the wider context of discrimination and exclusion to which indigenous peoples as a whole are often exposed in social, economic, cultural and political life. Challenges—such as land dispossession, conflict insecurity, displacement, low rates of birth registration, limited access to culturally appropriate education and health services (including sexual and reproductive health), the lack of access to justice and other essential services, including social services—create conditions that affect their development, human security and the fulfilment of their human rights.[39]

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37 UNFPA, UNICEF, UN-Women, ILO and OSRSG/VAC, May 2013.
38 Statistics Canada, 2013. Measuring Violence Against Women: Statistical Trends 2013.
39 UNFPA, UNICEF, UN-Women, ILO and OSRSG/VAC, 2013.

Box 6.3
Violence peaks in the reproductive years

The experience of violence peaks when women are in their reproductive years. This is true in both developed and developing countries. Across Europe, women in the youngest age group (18 to 29 years) had the highest prevalence of both partner and non-partner violence in the past 12 months. Prevalence declined with age and was lowest among women aged 60 and over.

Proportion of women who experienced physical and/or sexual violence in the 12 months before the survey, by type of perpetrator, European Union-average, 2012

Age group	Partner violence (%)	Non-partner violence (%)
18–29	6	9
30–44	5	5
45–59	4	3
60+	3	3

Based on data from the Italian Violence Against Women survey conducted in 2006, it can be seen that lifetime experience of violence (partner and non-partner, physical or sexual) was higher among women aged between 25 and 34 years (38 per cent) and 35 and 44 years (35 per cent) than among women aged 55 to 64 years (26 per cent) and 65 to 70 years (20 per cent). As lifetime experience is affected by years exposed to violence, looking at experience in the past 12 months reveals that recent experience of violence declines with age also. Prevalence of violence in the past 12 months was 16 per cent for women aged between 16 and 24 years and less than 1 per cent for women aged between 65 and 70 years.[a]

Many surveys conducted in developing countries do not include older women in their sample. However, results from the few that do show that the experience of violence tends to decline as women age. In Fiji,[b] results show that younger women are much more at risk of experiencing intimate partner violence in the previous 12 months than older women. In that country, the prevalence of intimate partner violence of a physical nature in the past 12 months declined from 40 per cent in the 18- to 24-year-old age group to 3 per cent in the 55- to 64-year-old age group. A similar pattern was observed for intimate partner sexual violence. In Morocco, the experience of intimate partner physical violence in the past 12 months peaked between the ages of 30 and 34 and then declined, with prevalence halving from 6 per cent in the 40- to 49-year-old age group to 3 per cent in the 50- to 64-year-old age group.[c]

Source: European Union Agency for Fundamental Rights, Violence against Women: An EU-wide Survey, 2014.
a ISTAT, 2006.
b Fiji Women's Crisis Centre, 2013.
c Haut-Commisariat au Plan, 2009.

2. Intimate partner violence

Physical and/or sexual violence

In many cases, intimate partner violence accounts for the majority of women's experiences of violence. This was one conclusion drawn from one of the first multi-country studies on violence against women.[40] Among women who reported incidents of physical or sexual violence, or both, at some point in their lives, at least 60 per cent had been abused by a partner in almost all sites included in the study. The proportion approached 80 per cent or more in most sites. In contrast, less than one third of women in most sites had been abused only by someone other than an intimate partner.

Intimate partner violence is traumatic and debilitating. Victims often feel they have nowhere to turn, especially in societies where it is difficult for women to leave their husbands or live-in partners and live alone. Addressing intimate partner violence requires a range of approaches, including awareness-raising, education, prevention activities, provision of necessary health, legal and social services, shelters and counselling and improved follow-up on reported cases so that women are free from physical injury and fear.[41]

Half of all countries reported lifetime prevalence of intimate partner physical and/or sexual violence of at least 30 per cent

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For countries with available DHS data (figure 6.7), the proportion of women experiencing intimate partner physical and/or sexual violence in their lifetime ranged from 6 per cent in the Comoros (2012) to 64 per cent in the Democratic Republic of the Congo (2007). Half of all countries reported lifetime prevalence of at least 30 per cent. Prevalence was generally higher in Africa than in other regions, with one quarter of countries in the region reporting lifetime prevalence of at least 50 per cent. Prevalence was lower across Asia, Latin America and the Caribbean and Oceania, with maximum prevalence levels of around 40 per cent. For intimate partner physical and/or sexual violence experienced in the 12 months prior to the survey, prevalence ranged from 5 per cent in the Comoros (2012) to 44 per cent in Equatorial Guinea (2011) and Rwanda (2010). Across all regions, the prevalence of expe-

rience of violence in the past 12 months was often similar to lifetime prevalence, a possible indication of how difficult it can be for women to leave violent relationships. For countries where more than one year of data are available, prevalence in the last 12 months showed slight declines in most countries, with Uganda showing an encouraging decline from 45 per cent in 2006 to 35 per cent in 2011.[42] However, results from Rwanda showed a significant increase—from 26 per cent in 2005 to 44 per cent in 2010.[43]

For countries included in the EU FRA survey (figure 6.8), the proportion of women experiencing intimate partner physical and/or sexual violence in their lifetime ranged from 13 per cent in five countries—Austria, Croatia, Poland, Slovenia and Spain to 32 per cent in Denmark and Latvia. More than half of countries in the region reported lifetime prevalence of at least 20 per cent. Experience in the past 12 months was generally considerably lower than lifetime, ranging between 2 and 6 per cent.[44]

Table 6.3 presents results for countries that conducted national surveys on violence against women. Rates of lifetime intimate partner physical and/or sexual violence were highest in Oceania, with prevalence reaching over 60 per cent in a number of countries in the region. Across all regions, lifetime prevalence was at least 30 per cent in half of the countries. Experience in the past 12 months was typically much lower than lifetime.

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[40] WHO, 2005.

[41] WHO, 2013b.

[42] ICF International, 2014.

[43] It should be noted that one of the methodological issues related to surveys on violence against women is that, after awareness campaigns, for example, women may find it easier to talk about their experiences. Therefore, disclosure of violence may be higher in a subsequent survey even though the level of violence may not have increased.

[44] In general, it can be seen that the differences between lifetime experience of intimate partner physical and/or sexual violence and experience in the last 12 months are wider for results from the EU FRA survey than for DHS. This may be due to a number of reasons and further research into this is needed, however contributing factors may be the wider age reference period for the EU FRA survey as compared to DHS (18 to 74 years compared to 15 to 49 years) and also a reflection of the possibility to stop the violence or leave a violent relationship. Higher levels of current (in the last 12 months) violence in developing countries is a common finding and can be expected if women cannot leave the relationship.

Figure 6.7

Proportion of ever-partnered women aged 15–49 years experiencing intimate partner physical and/or sexual violence at least once in their lifetime and in the last 12 months, 1995–2013 (*latest available*)

Figure 6.8

Proportion of ever-partnered women aged 18–74 years experiencing intimate partner physical and/or sexual violence at least once in their lifetime and in the last 12 months, European countries, 2012

Source: European Union Agency for Fundamental Rights, Violence against Women: An EU-wide Survey, 2014. (European Union Agency for Fundamental Rights, 2014).

Note: Some countries requested that only the results of their national surveys be presented (see table 6.3). Ranking is for presentation purposes only (see introduction to section A for further details).

Table 6.3

Proportion of women experiencing intimate partner physical and/or sexual violence at least once in their lifetime and in the last 12 months, 2000–2013 (*latest available*)

Country	Year	Lifetime	Last 12 months
Albania	2013	24.6	..
Armenia	2008	9.5	..
Australia	2012	16.9	..
Bangladesh	2011	67.2	50.7
Canada	2009	..	1.3
Ecuador	2011	37.5	..
Fiji	2010/11	64.0	24.0
Finland	2013	..	5.8
France	2007	..	1.0
Iceland	2008	22.4	1.8
Italy	2006	14.3	2.4
Kiribati	2008	67.6	36.1
Maldives	2006	19.5	6.4
Mexico	2011	14.1	6.6
Norway	2008	27.0	6.0
Poland	2004	15.6	3.3
Republic of Moldova	2010	45.5	..
Samoa	2000	46.1	..
Singapore	2009	6.1	0.9
Solomon Islands	2009	63.5	..
Sweden	2012	15.0	2.2
Tonga	2009	39.6	19.0
Turkey	2014	38.0	11.0
Vanuatu	2010	60.0	44.0
Viet Nam	2010	34.4	9.0

Source: Compiled by the United Nations Statistics Division from national surveys on violence against women, correspondence with National Statistical Offices.

Note: Age groups covered differ among countries; methodologies, questionnaire designs and sample sizes used in surveys by statistics offices to produce national data may differ from those used in internationally conducted surveys.

Source: Compiled by the United Nations Statistics Division from Demographic and Health Surveys (DHS) and Reproductive Health Surveys (RHS). (ICF International, 2014 and CDC, 2014).

Note: Ranking is for presentation purposes only (see introduction to section A for further details).

Psychological and economic violence

Psychological violence includes a range of behaviours that encompass acts of emotional abuse and controlling behaviour. These often coexist with physical and sexual violence by intimate partners and are acts of violence in themselves. Examples of behaviours that fall within the definition of psychological violence include:[45]

Emotional abuse—insulting or making a woman feel bad about herself, belittling or humiliating her in front of others, deliberately scaring or intimidating her, threatening to hurt her or others she cares about.

Controlling behaviour—isolating a woman by preventing her from seeing family or friends, monitoring her whereabouts and social interactions, ignoring her or treating her indifferently, getting angry if she speaks with other men, making unwarranted accusations of infidelity, controlling her access to health care, education or the labour market.

Lifetime experience of psychological violence was highest in Africa and Latin America and the Caribbean

For countries with available data from DHS,[46] RHS and Multiple Indicator Cluster Surveys (MICS) (figure 6.9), the proportion of women experiencing intimate partner emotional/psychological violence in their lifetime ranged from 7 per cent in Azerbaijan (2006) to 68 per cent in Peru (2013). Lifetime experience was highest in Africa and Latin America and the Caribbean. In Latin America and the Caribbean prevalence is higher than 40 per cent in more than half of countries with data. For intimate partner emotional/psychological violence experienced in the 12 months prior to the survey, prevalence ranged from 6 per cent in Azerbaijan (2006) and the Comoros (2012) to 40 per cent in Equatorial Guinea (2011). Experience in the past 12 months was generally similar to lifetime experience in Africa, Asia and Oceania, however, in Latin America and the Caribbean recent experience was considerably lower than lifetime.

In EU countries, reported psychological violence among women was also very high (figure 6.10). The scope of such violence in the EU FRA survey included controlling and abusive behav-

iour, economic violence and blackmail with abuse of children. Only lifetime experience was addressed. The proportion of women experiencing intimate partner psychological violence at least once in their lives ranged from 31 per cent in Ireland to 60 per cent in Denmark and Latvia. More than half of the countries reported lifetime prevalence of psychological violence of 40 per cent or higher.

Figure 6.9

Proportion of women aged 15–49 years experiencing intimate partner psychological violence at least once in their lifetime and in the last 12 months, 1995–2013 (*latest available*)

Note: Ranking is for presentation purposes only (see introduction to section A for further details).

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45 United Nations, 2013a.

46 It should be noted that the figures reported by DHS refer to the emotional aspect of psychological violence only and do not include the experience of controlling behaviour.

Figure 6.10

Proportion of women aged 18–74 years experiencing intimate partner psychological violence at least once in their lifetime, European countries, 2012

Note: Some countries requested that only the results of their national surveys be presented (see table 6.4). Ranking is for presentation purposes only (see introduction to section A for further details).

Table 6.4 presents data from other national surveys. Lifetime experience of intimate partner psychological violence was higher than 50 per cent in 8 out of the 23 countries with data. Experience in the past 12 months was typically also high, reaching as high as 72 per cent in Bangladesh (2011) and over 50 per cent in 4 out of 20 countries with data.

Economic violence is difficult to define and can vary significantly according to the cultural context and country circumstances. In general terms, economic violence can involve denying access to property, durable goods or the labour market; deliberately not complying with economic responsibilities, thereby exposing a woman to poverty and hardship; or denying participation in economic decision-making.[47]

A number of countries have collected data on women's experience of economic violence. In Mexico, the 2011 survey "Encuesta Nacional sobre la Dinámica de las Relaciones en los Hogares" (ENDIREH)[48] revealed that one quarter of women who were married or in union had experienced economic violence during their current relationship, with 17 per cent experiencing such violence in the previous 12 months. A 2010 survey in Viet Nam discovered that among ever-married women, 4 per cent had husbands who had taken

Table 6.4

Proportion of women experiencing intimate partner psychological violence at least once in their lifetime and in the last 12 months, 2000–2013 (*latest available*)

Country	Year	Lifetime	Last 12 months
Albania	2013	58.2	52.8
Armenia	2008	25.0	..
Australia	2012	24.5	4.7
Bangladesh	2011	81.6	71.9
Canada	2009	11.4	..
Ecuador	2011	43.4	..
Fiji	2010/11	58.3	28.8
Italy	2006	43.2	..
Japan	2010	17.8	..
Kiribati	2008	47.0	30.1
Maldives	2006	28.2	12.3
Morocco	2009/10	..	38.7
Republic of Korea	2013	..	36.4
Republic of Moldova	2010	59.4	25.7
Samoa	2000	19.6	12.3
Solomon Islands	2009	56.1	42.6
State of Palestine	2011	58.8	58.6
Sweden	2012	23.5	6.8
Tonga	2009	24.0	13.0
Tunisia	2010	24.8	17.0
Turkey	2014	44.0	26.0
United Kingdom (England and Wales only)	2012/13	17.2	2.5
United States of America	2011	47.1	14.2
Vanuatu	2010	68.0	54.0
Viet Nam	2010	53.6	25.4

Note: Age groups covered differ among countries; methodologies, questionnaire designs and sample sizes used in surveys by statistics offices to produce national data may differ from those used in internationally conducted surveys.

their earned or saved money from them, 7 per cent had been refused money by their husbands, and 9 per cent had experienced at least one of these acts.[49] In the 1998 DHS in South Africa, almost one in five currently married women reported that their partner regularly failed to provide economic support, while having money for other things.[50] Results from Fiji[51] revealed that women who experienced physical or sexual violence by their partners are significantly more likely to have husbands who take their savings or earnings and refuse to give them money, compared with women who have not experienced partner violence.

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47   United Nations, 2013a.

48   Instituto Nacional de Estadística y Geografía, 2011.

49   Viet Nam General Statistics Office, 2010.

50   ICF International, 2014.

51   Fiji Women's Crisis Centre, 2013.

Box 6.4
Violence against men

Gender-based violence is a manifestation of the historic imbalance of power between men and women. Although gender-based violence typically focuses on violence against women, data on violence against men are also collected. The figure below presents statistics on the proportion of women experiencing lifetime intimate partner physical violence (women victims) alongside the proportion of women who report ever committing acts of physical violence against their husband/partner when he was not already beating or physically hurting them (women perpetrators).

Women are far more likely to be victims than perpetrators of intimate partner violence

Caution should be taken when interpreting these results, since they are based on women's self-reports of perpetrating violence against men as opposed to men reporting their experience of violence perpetrated by women. Based on available data, women are far more likely to be victims than perpetrators of intimate partner violence; in one country, women were over 50 times more likely to be victims (India, 2005–2006). The only country for which violence against men was higher than violence against women was the Philippines (2013). There, the prevalence of violence perpetrated by women against men (16 per cent) was only slightly higher than violence perpetrated by men against women (13 per cent).

Some studies also include men's self-reported experiences of violence. Here again, reported rates of physical violence by men against women are higher than those of physical violence by women against men. Even in countries where reported rates of intimate partner physical violence are similar for women and men, women are more likely to suffer from violence more frequently and to experience the more serious types of violence and emotional stress.[a]

a   Ansara, D.L. and M. J. Hindin, 2010.

Proportion of women who report experiencing lifetime intimate partner physical violence, as victims and perpetrators, 2005–2013 (*latest available*)

Source: Compiled by the United Nations Statistics Division from Demographic and Health Surveys (DHS). (ICF International, 2014).

Note: The chart presents the proportion of women who report experiencing lifetime intimate partner physical violence (women victims) alongside the proportion of women who report ever committing physical violence against their husband/partner when he was not already beating or physically hurting them (women perpetrators).

Attitudes towards wife-beating

Wife-beating is a clear expression of male dominance; it is both a cause and consequence of women's serious disadvantage and unequal position vis-à-vis men.[52] In some countries and cultures, wife-beating is seen as justifiable in a wide range of contexts. This acceptance means it can be difficult for behaviours to change and for women to feel they can discuss their experiences of violence and ask for help. Research indicates that perpetration of and victimization by violence is higher among those who accept or justify such abuse than those who do not.[53] However, evidence also suggests that attitudes are beginning to change and that both women and men are starting to view violence as less acceptable. shows the proportions of women and men who agree that a husband is justified in beating his wife for at least one of the following reasons: the wife burns the food, argues with her husband, goes out without telling him, neglects the children or refuses to have sex with him.

Wife-beating is acceptable in many countries across the world

Acceptance of wife-beating was generally higher in Africa, Asia and Oceania, and lower in Latin America and the Caribbean and developed countries. Levels of women's acceptance ranged from 3 per cent in Ukraine (2012) and Serbia (2010) to 92 per cent in Guinea (2012). Levels of men's acceptance ranged from 7 per cent in Serbia (2010) to 81 per cent in Timor-Leste (2009–2010). It should be noted that it is difficult to compare reported levels of acceptance of wife-beating across countries and contexts because the willingness to talk about violence and attitudes towards it vary, which can affect people's response. In almost all of the countries where more than one year of data are available, the level of women's and men's acceptance of wife-beating decreased over time.[54] Although it may be assumed that wife-beating is more widely justified by men than women, in most countries levels of reported acceptance are actually lower among men than women.

52   United Nations, 2010.
53   WHO, 2005; Promundo, International Center for Research on Women, 2012.
54   Statistical Annex, available at http://unstats.un.org/unsd/gender/worldswomen.html.

Figure 6.11

Attitudes towards wife-beating: proportion of women and men aged 15–49 years who agree that a husband is justified in hitting or beating his wife for at least one of five specified reasons, 1995–2014 (*latest available*)
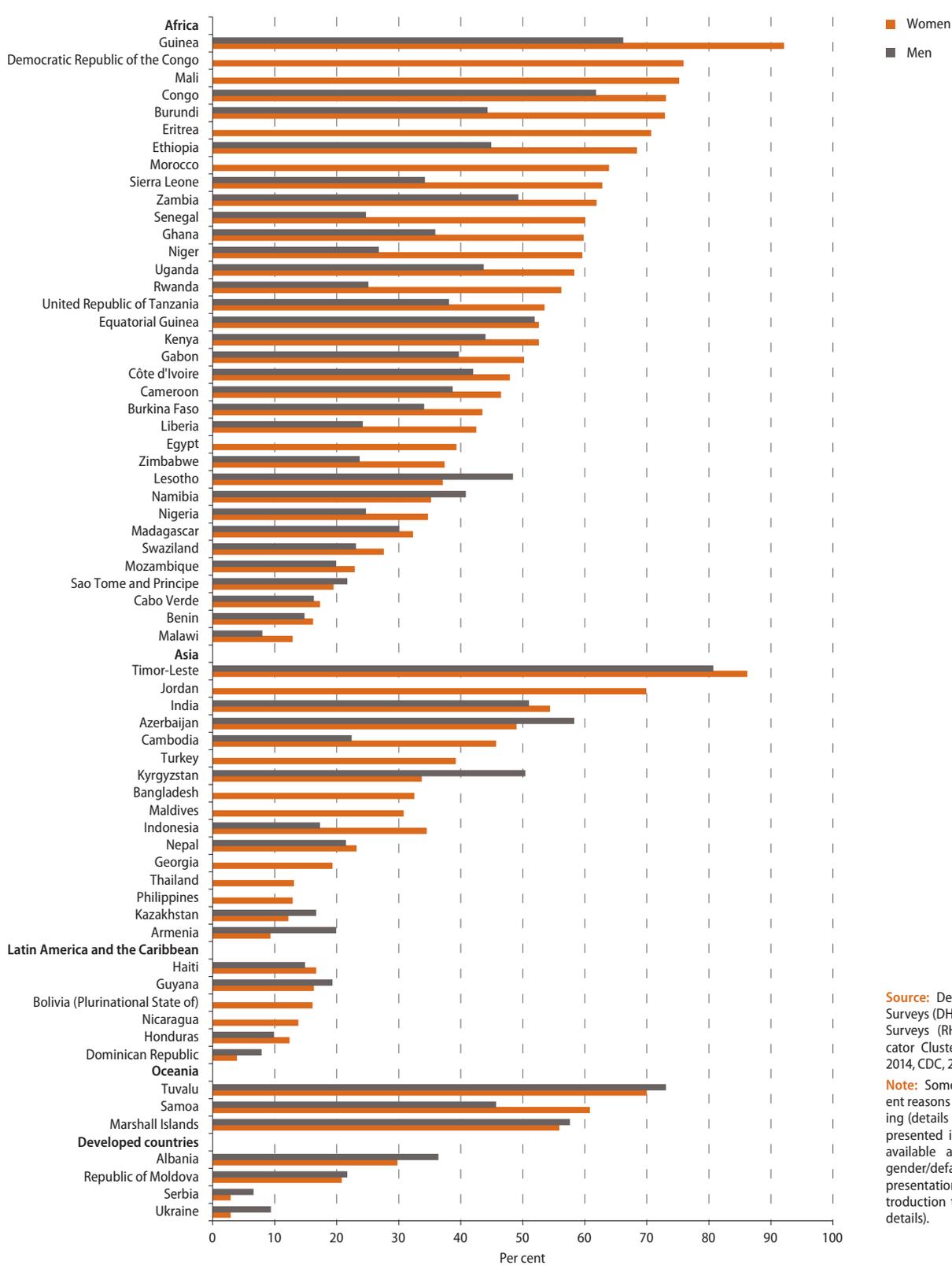
Source: Demographic and Health Surveys (DHS), Reproductive Health Surveys (RHS) and Multiple Indicator Cluster Surveys (MICS). (ICF, 2014, CDC, 2014 and UNICEF, 2014c).

Note: Some surveys have different reasons for justifying wife-beating (details of these differences are presented in the Statistical Annex available at unstats.un.org/unsd/gender/default.html). Ranking is for presentation purposes only (see introduction to section A for further details).

B.   Forms of violence in specific settings

1.   Female genital mutilation

The term "female genital mutilation" (FGM, also known as "female genital cutting" and "female genital mutilation/cutting") refers to all procedures involving partial or total removal of the external female genitalia or other injury to the female genital organs for non-medical reasons. This harmful practice constitutes a serious threat to the health of millions of women and girls worldwide and violates their fundamental rights. Immediate complications include bleeding, delayed or incomplete healing, and infections. Long-term consequences are more difficult to determine, but may include damage to adjacent organs, sterility, recurring urinary tract infections, the formation of dermoid cysts and even death.[55]

In 2014, the United Nations General Assembly passed the second resolution on intensifying global efforts for the elimination of female genital mutilations (A/RES/69/150) calling on countries to take steps to increase education and awareness training on the issue, enact and enforce legislation, implement national action plans by involving multiple stakeholders, continue data collection and research, and provide support to victims and women and girls at risk. Despite this resolution and other important advances to eliminate female genital mutilation, the practice continues at unacceptably high levels in countries around the world.

In the 29 countries in Africa and the Middle East where the practice is concentrated, more than 125 million girls and women alive today have been subjected to the practice.[56] Of these, around one in five live in Egypt, where prevalence has been consistently over 90 per cent since data collection on the practice began. In addition, female genital mutilation is practised by immigrants and minority groups in other countries, meaning that the global total of girls and women subjected to cutting is likely to be even higher than 125 million.

55 UNICEF, 2013.
56 *Ibid.*

Female genital mutilation is less prevalent among younger women

Based on latest available data, the prevalence of female genital mutilation among women aged between 15 and 49 is highest (over 80 per cent) in Djibouti, Egypt, Eritrea, Guinea, Mali, Sierra Leone, Somalia and Sudan.[57] Among countries studied, prevalence is lowest (less than 10 per cent) in Benin, Cameroon, Ghana, Iraq, Niger, Togo and Uganda. In most countries where the practice is concentrated, prevalence rates have declined over time. Comparing prevalence across age groups can also indicate changes in the practice among younger generations. The proportions of girls and women aged 15 to 19 and 45 to 49 subjected to female genital mutilation are presented in figure 6.12. In all but one country presented here (Niger, which has rates near zero across all age groups), prevalence was lower among the younger cohort, with much lower prevalence rates found among younger women in Burkina Faso, Kenya, Liberia, Nigeria and Sierra Leone (more than 20 percentage points difference). However, in several countries—Djibouti, Guinea, Mali, Somalia and Sudan—prevalence was still very high among the young (more than 80 per cent) and was only slightly lower (5 percentage points difference or lower) in the younger age group, indicating that not much progress has been made overall.

Within countries, prevalence rates vary according to ethnicity, religion, urban or rural residence, economic status, age, education and income. In general, reported levels of female genital mutilation are lower in urban areas, among younger women, and in families with higher levels of household income and mothers with higher levels of education.[58]

Some efforts have been made to estimate the numbers of those at risk of female genital mutilation in countries of destination for people emigrating from areas where cutting is practised. Methods used include applying the prevalence rate in the country of origin to the numbers of immigrants from that country. However, this may lead to significant overestimation, since immigrants may not be representative of the population in the country of origin. Moreover, attitudes towards and the practice of female genital mutilation may be affected by moving to a new country where cutting is not widespread.

**57** Statistical Annex, available at http://unstats.un.org/unsd/gender/worldswomen.html.
58 UNICEF, 2013.

Figure 6.12
Girls and women aged 15–19 years and 45–49 years subjected to female genital mutilation, 2002–2013 (*latest available*)
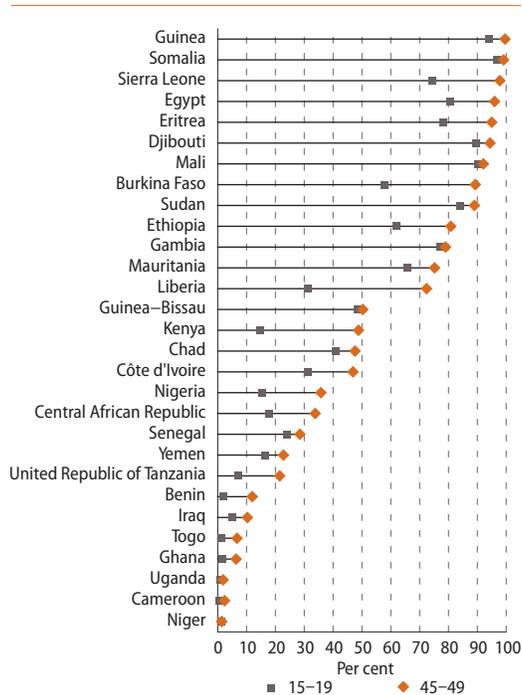
Source: Compiled by the United Nations Statistics Division from Demographic and Health Survey (DHS) and Multiple Indicator Cluster Survey (MICS) reports (ICF, 2014 and UNICEF, 2014c).

Note: In the 29 countries where FGM is concentrated, almost all girls undergoing FGM are cut before the age of 15 (UNICEF, 2013). Ranking is for presentation purposes only (see introduction to section A for further details).

Attitudes towards female genital mutilation have also shown some change. In a number of countries, the majority of women (and men, where available) believe the practice should be discontinued. It is often assumed that support for female genital mutilation is higher among men than women; however, in many cases, the proportion of women and men who believe the practice should be discontinued is around the same. Support for discontinuation is mainly high in countries where prevalence is relatively low, such as Benin, Cameroon, Côte d'Ivoire, Ghana, Iraq, Kenya, Niger, Nigeria, Togo, Uganda and the United Republic of Tanzania. However, in Burkina Faso, strong support has been found for discontinuation, even in a high-prevalence context. In most countries where data are available for multiple years, support for discontinuation has increased.[59]

2.   Violence in conflict situations

In addition to the trauma of coping with life in the midst of conflict, people in these situations can face heightened levels of interpersonal violence. Sexual violence perpetrated by militia, military personnel or the police during conflict is an important aspect of non-partner sexual violence. However, data in this area tend to be sparse. In an effort to gather specific information on this issue, the Office of the Special Representative to the Secretary-General on Sexual Violence in Conflict has created a website (http://www.un.org/sexualviolenceinconflict/) that includes information on violence experienced by people living in conflict situations. The conflicts highlighted include those in Bosnia and Herzegovina, the Central African Republic, Colombia, Côte d'Ivoire, the Democratic Republic of the Congo, Guinea, Liberia, Mali, Somalia, South Sudan, Sudan and the Syrian Arab Republic.

In Somalia, for example, high numbers of incidents of sexual violence continue to be reported. Between January and November 2012, United Nations partners and service providers registered over 1,700 rape cases in Mogadishu and the surrounding areas. Acts of sexual violence continue to be committed against internally displaced women and girls in these areas. Somali refugee women and girls were also targeted for sexual violence while attempting to flee to the border.[60] Data from eastern Democratic Republic of the Congo, which has experienced sustained internecine violence for over a decade, found that almost half (48 per cent) of male non-combatants reported using physical violence against women, 12 per cent acknowledged having carried out partner rape, and 34 per cent reported perpetrating some kind of sexual violence. This heightened violence included 9 per cent of adult men who said that they had been victims of sexual violence themselves, and 16 per cent of men and 26 per cent of women who reportedly were forced to watch sexual violence.[61] In some instances in Afghanistan, survivors of sexual violence said they were raped a second time by security forces while seeking protection.[62]

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59 Based on data compiled by the United Nations Statistics Division from Demographic and Health Surveys.

60 United Nations, 2014.
61 Promundo, International Center for Research on Women, 2012.
62 United Nations, 2014.

In cases where women fleeing conflict reach refugee camps, they often do not participate equally with men in the administration of the camps and in the formation and implementation of assistance programmes, with negative effects on equal access to food or other essential items. Vulnerability to sexual violence remains high in refugee camps, and single women or unaccompanied girls may be at higher risk if they are not accommodated separately from men or if there is not sufficient privacy. Long walk distances out of the camps to collect water and firewood for cooking and heating may also expose women to the threat of rape. In some cases, refugee women engage in survival sex to support their families.[63]

Adopted in 2000, UN Security Council resolution 1325 (2000) on women and peace and security was a milestone in addressing violence against women in situations of armed conflict. Recognizing the need to fully implement laws that protect the rights of women and girls during and after armed conflict, it calls for special measures to protect them from gender-based violence in such situations. The 26 indicators attached to the resolution are designed to monitor implementation and progress not only towards maintaining and promoting the security of women but also towards promoting women's leadership roles for peacekeeping and peacebuilding (see Chapter 5 on Power and Decision Making). Subsequent related Security Council resolutions directly address the issues of sexual violence in conflict as a tactic of war (1820 (2008)) and involving women in post-conflict and reconstruction periods (1889 (2009)).

3. Trafficking

Human trafficking in women is a serious issue and has been addressed internationally by the Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, which supplements the United Nations Convention against Transnational Organized Crime. The Protocol, which entered into force in 2003, had been ratified as at December 2014, by 166 parties. According to the protocol, human trafficking involves recruiting, transporting, harbouring or receiving persons under threat or use of force or other types of coercion for pur-

poses of exploiting individuals for prostitution, other types of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.

In 2014, the United Nations General Assembly passed a resolution on trafficking in women and girls (A/RES/69/149) calling on countries to sign and ratify relevant treaties and conventions, address the factors that make women and girls vulnerable to trafficking and to take more preventative efforts, including through education, develop comprehensive anti-trafficking strategies, criminalize all forms of trafficking and strengthen national mechanisms to ensure coordinated and comprehensive responses.

Due to its underground nature, accurate data on the scale of human trafficking are difficult to collect. According to a 2014 report on trafficking in persons,[64] published by the United Nations Office on Drugs and Crime (UNODC), adult women accounted for almost half (49 per cent) of all human trafficking victims detected globally. Women and girls together accounted for about 70 per cent, with girls representing two out of every three child trafficking victims.[65] Of persons prosecuted for and/or convicted of trafficking in persons over the period 2010–2012, around three quarters were men.[66] The most common forms of exploitation of known victims of trafficking are sexual exploitation and forced labour. Between 2010 and 2012, victims holding citizenship from 152 different countries were found in 124 countries,[67] an indication of the global scope of the problem.

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63 United Nations, 2006b.

64 UNODC, 2014.

65 *Ibid*. At present, there is no sound estimate of the number of victims of trafficking in persons worldwide. These gender breakdowns are based on the numbers of detected victims of trafficking as reported by national authorities. These official figures represent only the visible part of the trafficking phenomenon and the actual figures are likely to be much higher.

66 *Ibid*.

67 *Ibid*.

C. State accountability: Help-seeking and response to violence against women

1. Help-seeking

Only a fraction of women who experience violence seek help. The proportion of women who did seek help from family, friends or institutions such as health services and the police ranged from 18 per cent in Mali (2012–2013) to over 70 per cent in Georgia (2010) (figure 6.13). In the majority of countries, less than 40 per cent of the women who experienced violence sought help of any sort. Among women who did, most looked to family and friends as opposed to the police and health services. For example, among women who sought help in the United Republic of Tanzania (2010), 47 per cent appealed to family, 6 per cent to the police, and 1 per cent to a doctor or other medical personnel.[68] In Jordan (2012), 84 per cent looked to their family for support and 2 per cent went to the police.[69]

In general, only a small proportion of women who sought help did so by appealing to the police. In almost all countries with available data, the percentage of women who sought help from the police, out of all women seeking help for experience of violence, was less than 10 per cent (figure 6.14). These findings underscore the assumption that, in the vast majority of instances, violence goes unreported and administrative records are not appropriate for assessing the prevalence of violence. One reason women may be reluctant to speak to the police about their experience of violence may be the low representation of women among police personnel. Women make up less than 35 per cent of police personnel in all 86 countries and areas for which data are available, and less than 10 per cent in 26 of these countries.[70]

Yet, even when women do seek help, they often face formidable barriers. These include: lack of awareness of or actual lack of services; lack of accessibility to services due to linguistic, cultural, physical or financial constraints; fear of reprisals by the offender as well as family and community members; reluctance due to shame or embarrassment; the potential impact on women's custody of children; fear of reliving the experience of

violence by testifying before the courts; the feeling that the police could do nothing to help; and wanting to keep the incident private.[71]

> In most countries less than 40 per cent of women who experienced violence sought help of any sort

Figure 6.13

Proportion of women aged 15–49 years who experienced violence and sought help, 2000–2013 (*latest available*)
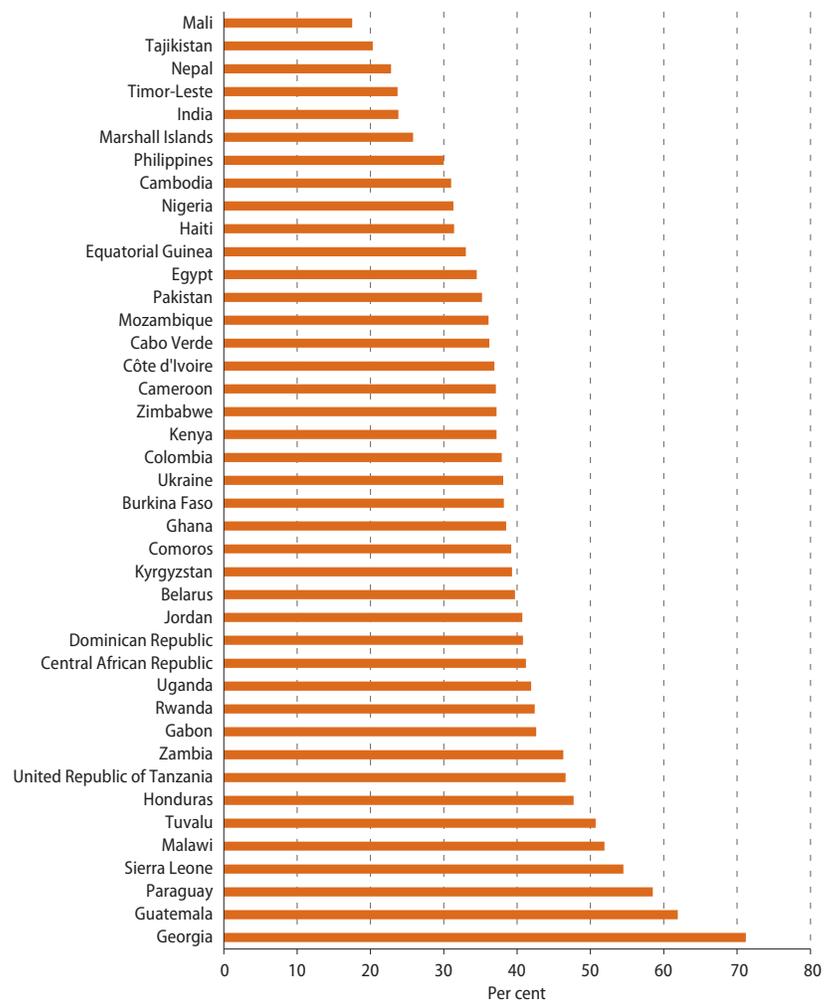
Source: Compiled by the United Nations Statistics Division from Demographic and Health Surveys (DHS), Reproductive Health Surveys (RHS) and Multiple Indicator Cluster Surveys (MICS). (ICF, 2014, CDC, 2014 and UNICEF, 2014c).

Note: Ranking is for presentation purposes only (see introduction to section A for further details).

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68 ICF International, 2014.

69 *Ibid.*

70 UNODC, 2015.

71 Gauthier and Laberge, 2000;Kelly, Lovett and Regan, 2005; Fugate and others, 2005.

Only a small proportion of women victims of violence who sought help did so from the police

Figure 6.14
Proportion of women aged 15–49 years who experienced violence and sought help from the police, as a proportion of those who sought help from any source, 2005/06–2013 (*latest available*)
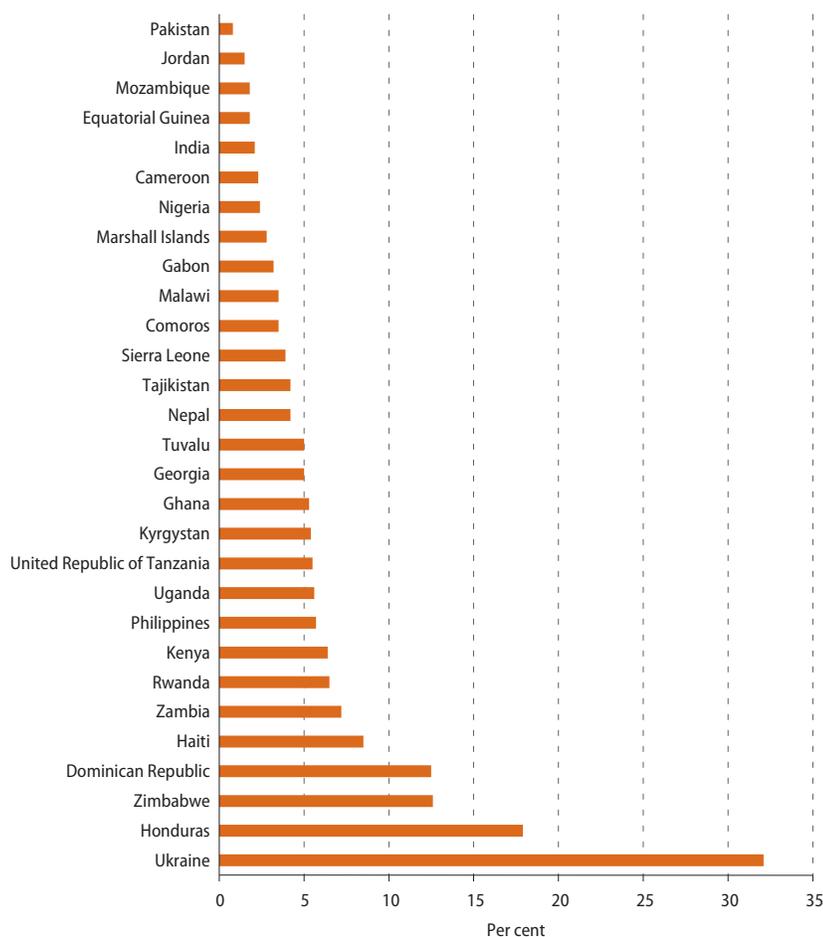
Per cent

2. State response to violence against women

In many cases, even when women do seek help from state institutions such as the police, health and social services and the justice system, the response can be inadequate. Not all countries have laws on violence against women, and when they do, they are often more concerned with responding to the violence that has already occurred than with preventing it in the first place. At least 119 countries have passed laws on domestic violence, 125 have laws on sexual harassment and 52

have laws on marital rape.[72] Even when domestic violence laws exist, this does not always mean they are implemented, or implemented in ways that actually help women. In many cases, victims of domestic violence are economically dependent on their intimate partner and so conviction and imprisonment of the perpetrator, for example, leave the woman bereft of her only source of economic support. Domestic violence laws need to be implemented in tandem with measures for the economic empowerment of women and appropriate social support mechanisms for victims who take the difficult step of seeking legal recourse.[73] Prevention of and response to violence requires coordinated approaches across government, working with non-governmental organizations and other stakeholders.

To tackle the problem of violence against women, legislation needs to be enforced and implemented in ways that support victims and not discriminate against them. Many reported cases of violence suffer from attrition, or drop out, as they work their way through national legal systems. Attrition is a particular problem in rape cases.[74] Results of a study in Gauteng Province, South Africa, for example, revealed that 17 per cent of reported rapes reached court and only 4 per cent ended in a conviction– levels of attrition that are common in many other countries.[75] In European countries, an average of 14 per cent of reported rapes resulted in a conviction.[76]

Policies and programmes to address violence against women need to be sustainable, properly financed and participatory—involving not only women but men. Comprehensive victim support systems are essential, encompassing hotlines, shelters, health services, legal support, counselling and economic empowerment. However, such systems should be implemented along with initiatives to reduce impunity for perpetrators, prevent violence from occurring in the first place, and change social norms around the use of violence. Monitoring and evaluation should be conducted to assess which approaches work best. In addition, continued improvements in and support for data collection are needed to assess changes over time and progress towards a world free from violence against women in all its forms.

72 OECD, 2015; Minimum Set of Gender indicators, 2014.
73 UN Women, 2011/2012.
74 *Ibid.*
75 *Ibid.*
76 Lovett and Kelly, 2009.

Box 6.5
When data on violence against women informs policy: The case of Kiribati

A dedicated study on violence against women and children[a] was conducted in Kiribati in 2008, the first such study in that country. It revealed that Kiribati has one of the highest recorded levels of violence against women in the world: 68 per cent of ever-partnered women said they were victims of physical and/or sexual violence by an intimate partner, 47 per cent reported incidents of emotional abuse, and 90 per cent reported experiencing at least one form of controlling behaviour. Women were more likely to be subjected to severe forms of partner physical violence such as punching, kicking or having a weapon used against them, than moderate forms of physical violence. Twenty-three per cent of women who had ever been pregnant reported being beaten during pregnancy, and women who had experienced intimate partner violence were significantly more likely to report miscarriage and a child who died.

The study also investigated why violence against women was so common in Kiribati and concluded that there were a number of contributing factors. They included: a high level of acceptance of violence, the belief that controlling behaviour in intimate partner relationships was "normal", and the frequent use of physical punishment to "discipline" women who were thought to be transgressing their traditional gender roles. The most common reason men interviewees gave for hitting their wives was that they "disobeyed" them.

A number of risk factors were identified as being associated with the experience of intimate partner violence, including: being subjected to controlling behaviour by an intimate partner; alcohol consumption by both women and their partners; having been sexually abused as a child; having a partner who was beaten as a child; having a partner whose father beat the partner's mother; having a partner who fights with other men; and having a partner who has had an affair. These factors were much more significant than most social, economic and demographic variables such as age, education and employment, showing that violence cuts across all sectors of society.

In response, the study proposed a number of actions to address the widespread problem of violence in Kiribati, including establishing a new government body dedicated to gender, developing a national action plan to eliminate violence against women, and strengthening and expanding formal support systems for women living with violence. Since the publication of the survey results, the Government of Kiribati passed the Family Peace Bill, which aims to confront all forms of violence against women. It also approved the Eliminating Sexual and Gender-based Violence Policy and the accompanying National Action Plan 2011–2021, and is partnering with faith-based organizations and civil society to create SafeNet, which provides free services to survivors of sexual and gender-based violence.

[a] Secretariat of the Pacific Community, 2010.

Chapter 7

Environment

Key findings

- About half of population in developing regions lack access to improved drinking water on the premises; and the burden of water collection falls mostly on women.
- The number of deaths from diarrhoea due to inadequate water, sanitation and hygiene in developing regions was 0.8 million in 2012; the majority of such deaths in some parts of Asia were among women and girls.
- Slow progress in access to modern energy services, including electricity and non-solid fuels for cooking, delays improvements in health and hinders significant reductions in the workload burdens associated with household chores and firewood collection.
- Age, sex and differences in gender roles and norms are significant factors in mortality due to natural disasters, but their contribution varies by country and type of natural hazard.
- In some post-disaster settings, women's access to work and involvement in reconstruction efforts remain more limited than men's.
- More and more people are engaging in environmental protection activities, including recycling and cutting back on driving to reduce pollution; overall, women tend to be more involved than men in these day-to-day activities, linked to the gender division of labour.
- Women remain underrepresented in local and high-level environmental decision-making.

Introduction

Women and the environment is one of the 12 critical areas of concern for achieving gender equality identified in the Beijing Platform for Action.[1] The Platform for Action recognizes that environmental conditions have a different impact on the lives of women and men due to existing gender inequality. It also stresses that women's role in sustainable development is hampered by unequal access to economic resources, information and technology, and limited participation in policy formulation and decision-making in natural resources and environment management.

This chapter examines the links between gender and the environment in two parts. The first part looks at three aspects of the environment that have different effects on the lives of women and men:[2] access to water and sanitation, access to modern energy services, and exposure to natural hazards. It shows that the burden of work resulting from lack of access to clean water and energy falls mostly on the shoulders of women. In ad-

dition, exposure to inadequate water may result in higher mortality among women than men as a result of diarrhoea in contexts where access to health services remains unequal. Household air pollution resulting from the use of firewood and other solid fuels threatens the lives of women and men in many developing countries, but women are more exposed than men to indoor pollutants due to their role in cooking and caring for children and other family members. Gender roles may also worsen women's vulnerability during disasters and waste their potential as a source of resilience.

The second part of the chapter examines the participation of women and men in preserving the environment through everyday activities and environmental decision-making in local and high-level forums. Available data show that in everyday life, women tend to recycle and cut back on driving to reduce pollution more than men (linked to the gender division of domestic work), but remain underrepresented in local and national positions of decision-making related to the environment. As we approach global ecological limits that define a "safe operating space" for humanity[3], it is

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1 United Nations, 1995.
2 Other aspects of the environment that may have a different impact on the lives of women and men could not be analysed due to lack of data (see box 7.1).

3 United Nations, 2012.

of utmost importance that both women and men step out of their traditional gender roles and participate actively to ensure environmental protection and sustainable development.

Box 7.1
Gaps in gender statistics related to the environment

Environment statistics is a relatively new statistical field[a] that describes the biophysical aspects of the environment—the natural environment (air/climate, water, land/soil), the living organisms within these media, and human settlements[b]—and those aspects of social and economic systems that directly influence and interact with the environment.[c] This field of statistics, considered gender-neutral, was initially developed without much consideration of the dimensions related to individuals. In this context, links between gender and environment have been assessed most often based on qualitative or small-scale quantitative studies. Such assessments are useful in highlighting the socially constructed vulnerabilities and challenges faced by women and men and in providing information on the importance of integrating a gender perspective in policymaking. The extrapolation of their results, however, to the level of a whole society or across countries may lead to misconceptions about the status of women relative to men in different settings.

The links between gender and the environment are increasingly recognized by statisticians, including in the recently revised UN Framework for the Development of Environment Statistics.[d] However, in many countries, gender statistics on environment are not yet part of the regular programmes of statistics in national statistical systems—a huge obstacle for gender analysis and policymaking.

For this report, in particular, the choice of issues examined and the structure of the chapter were constrained by the current availability of data. Topics related to housing characteristics or infrastructure, such as access to improved water, use of solid fuels for cooking and access to electricity, are covered more comprehensively because supporting statistics are available for a large number of countries. These statistics have agreed international concepts and definitions and are collected in surveys and censuses on a regular basis. For example, more than 200 countries and areas have available statistics on access to improved water and improved sanitation, for at least two data points between 1990 and 2014; and 180 countries have statistics on the use of solid fuels for cooking for at least two data points.[e]

However, more statistical information is needed on the links between gender and the environment in several areas. Time-use data are largely missing in countries from developing regions, where poor infrastructure and housing conditions, as well as natural hazards result in increased work burdens. For example, data on time spent for water or firewood collection was available for international compilation for only 14 developing countries, either from stand-alone time-use surveys or from modules on time use attached to other household surveys. Furthermore, time-use data on national and subnational trends, which are needed to assess changes in women's and men's work burdens

as a consequence of improvements in infrastructure or deterioration due to droughts, deforestation or desertification, are generally missing.

Environmental health is one of the most complex and difficult areas of data collection and estimation. The burden of disease due to environmental causes is currently estimated by the World Health Organization (WHO) and other institutions based on three types of statistical information: exposure to environmental hazards; the effect of the exposure on morbidity and mortality; and mortality by cause of death in the presence versus the absence of environmental hazards. Complex modelling is used to produce global and regional estimates of morbidity and mortality, often based on partial information on exposure, a few case studies on the relationship between exposure and health effects, and cause of death information confined to a limited number of countries, mostly from developed regions. Gender is not consistently integrated at every step of the statistical modelling (mainly due to limited availability of statistical information disaggregated by sex) and the results obtained are not systematically assessed from a gender perspective.

Sex-disaggregated data on the effects of natural hazards on mortality and morbidity are available for a small number of cases, mostly from research literature, and are even more difficult to obtain on other dimensions, such as education, health, food and economic security.

Adequate monitoring of the impact of the environment and climate change on the lives of women and men may require that some data disaggregated by sex and age are recorded for smaller areas of a country. At most, the traditional system of social statistics has been focused on urban/rural areas and regions. However, the occurrence and impact of environmental phenomena are distributed across space without regard to administrative boundaries, and monitoring may need to take into account small areas that are particularly prone to specific weather conditions and the effects of climate change. Technologies such as Global Positioning Systems (GPS) and remote sensing need to be further explored as sources of geospatial information that can be layered upon the sex-disaggregated information on a population produced by household surveys and censuses to determine the exposure of women and men to various natural hazards or pollution factors.

Finally, statistics to assess the active participation of women and men in environmental protection and decision-making at all levels are scarce. For example, data on environmentally friendly behaviour are mostly limited to developed countries. Information on local decision-making on environmental resources and extreme event preparedness and post-disaster reconstruction efforts has remained largely a domain of qualitative and small case studies[f].

a United Nations Statistics Division, 2013.

b United Nations Environment Programme, 2012.

c United Nations Statistics Division, 2013.

d The revised Framework for the Development of Environment Statistics was endorsed by the United Nations Statistical Commission at its forty-fourth session in 2013.

e United Nations Statistics Division, 2014.

f One notable exception is data collection on local management of forests coordinated by the Poverty and Environment Network (Center for International Forestry Research, http://www1.cifor.org/pen, accessed March 2015).

A. The impact of environmental conditions on the lives of women and men

1. Access to improved drinking water and sanitation

The right to safe, clean drinking water and adequate sanitation is a human right, essential to the full enjoyment of life and all other human rights, as recognized by the UN General Assembly in July 2010 (resolution 64/292). Lack of access to clean drinking water and sanitation has a tremendous impact on the burden of disease and the workloads of both women and men in developing countries. However, women are more often charged with collecting water, cleaning and cooking and also with taking care of the sick, drastically limiting their time spent on paid work and leisure and, in the case of girls, reducing the time for educational pursuits.

Steady progress has been made in access to improved drinking water and sanitation

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The proportion of the global population with access to improved drinking water[4] increased from 76 per cent in 1990 to 91 per cent in 2015.[5] Currently, 663 million people are without access to improved drinking water. Most of them are poor and located in rural areas of developing regions. Access to improved drinking water is virtually universal in developed regions and increased in all developing regions. Some of the biggest improvements were in Eastern Asia, Southern Asia and South-Eastern Asia. Sub-Saharan Africa also recorded a substantial increase in access, but remains one of the regions with the lowest level of coverage (68 per cent), second only after Oceania (56 per cent). Currently, sub-Saharan Africa has the largest share of the global population without access to improved drinking water, and alone accounts for nearly half of global population living without improved water sources.[6]

Access to improved sanitation[7] also increased, from 54 per cent of the global population in 1990 to 68 per cent in 2015. Globally, 2.4 billion people live without improved sanitation facilities; among these, nearly 1 billion practise open defecation. Progress in sanitation has been uneven among regions. The biggest improvements were recorded in Eastern Asia, Southern Asia, and South-Eastern Asia. Progress has been slow in sub-Saharan Africa and non-existent in Oceania. The lowest level of improved sanitation use is in sub-Saharan Africa, at 30 per cent of the population.[8]

The health burden

The lack of adequate drinking water, sanitation and hygiene are important environmental health risk factors with a tremendous impact on morbidity and mortality for both women and men. As noted above, many people do not have access to drinking water sources that are considered improved. In addition, not all sources considered improved provide safe, good quality water. For example, some of the drinking water sources considered "improved" may not be adequately maintained and protected from outside contamination, including from naturally occurring elements such as arsenic, pollution from industry and agriculture and from poor sanitation.[9] Furthermore, when the source of water is far away, the quantity of safe water that gets collected is less likely to be sufficient for minimum drinking needs or for good hygiene practices.[10] It has been shown that the quantity of water that gets collected declines drastically if more than half an hour per trip is needed to collect the water.[11] This is often the case in sub-Saharan Africa where 29 per cent of the population (37 per cent in rural areas and 14 per cent in urban areas) are at 30 minutes or more away from an improved source of drinking water.[12]

The health burden related to water and sanitation remains substantial in developing regions

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In 2012, an estimated 842,000 people died as a result of diarrhoea caused by inadequate drink-

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4 Improved drinking water sources include piped water on premises; public taps or standpipes; tube wells or boreholes; protected dug wells, protected springs; and rainwater collection.

5 UNICEF and WHO, 2015.

6 *Ibid.*

7 Improved sanitation facilities are facilities likely to ensure hygienic separation of human excreta from human contact. They include: flush/pour flush to piped sewer system, septic tank, and pit latrine; ventilated improved pit latrine; and pit latrine with slab and composting toilet.

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8 UNICEF and WHO, 2015.

9 UNICEF and WHO, 2012.

10 UNICEF and WHO, 2011.

11 *Ibid.*

12 Unweighted averages calculated by the United Nations Statistics Division based on data for 36 countries provided by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2014a. Data refer to the latest available in the interval 2005–2013.

ing water,[13] sanitation[14] and hygiene in low- and middle-income countries.[15] This death toll represented 1.5 per cent of the total disease burden of that year and 58 per cent of deaths due to diarrhoeal diseases.[16] The two regions (as defined by WHO) with the highest number of deaths from diarrhoea due to inadequate drinking water, sanitation and hygiene are Africa (44 per cent of the global total) and South-East Asia (43 per cent of the global total).

The distribution of deaths due to inadequate drinking water, sanitation and hygiene by sex was different in each of the two regions. Female deaths represented 49 per cent of the total share in Africa and 59 per cent in South-East Asia (which includes India as the most populous country in that WHO region).[17] These differences could be explained by specific regional sex and age distributions of all deaths due to diarrhoeal diseases. In Africa, death rates were either similar for females and males or slightly higher for males because of the general higher biological vulnerability and mortality for boys and men (see Chapter 2 on Health). In South-East Asia, however, the female mortality rates were higher than the male rates, both in childhood and at older ages (figure 7.1). Although the mortality rate declined

in the past decade for both females and males, sex differences persisted and increased even further among older persons (figure 7.1).

The sex differences in mortality due to diarrhoeal diseases observed in South-East Asia are likely related to gender differences in access to health services, which are to the disadvantage of girls and women. Deaths due to diarrhoeal disease are largely preventable if appropriate care is sought early. For children, studies in India, Bangladesh and Indonesia showed that the sex of a child influences care-seeking, including delayed hospitalization and lower rates of hospitalization among girls than boys.[18] In India, delays in seeking treatment are generally associated with longer travel distances to health facilities, poverty, lower levels of education and lack of a health card by the mother.[19] Gender bias in health care to the disadvantage of girls has been reported in other regions as well, although mortality rates for girls are not higher than those for boys. For example, in sub-Saharan Africa, in 17 of 23 countries with Demographic and Health Survey (DHS) data, the percentage of children with diarrhoea who did not receive medical advice was higher for girls than for boys, although in some countries only by a small margin.[20]

The work burden

The lack of improved drinking water on the premises increases the workload of women and men. In 2015, 58 per cent of the global population enjoy the convenience and health benefits of having piped water on the premises, 14 percentage points more than in 1990. Despite steady improvements, the coverage of piped water in developing regions remains much lower than in developed regions—49 per cent compared to 96 per cent in 2015. The regions with the lowest coverage are sub-Saharan Africa, Oceania, Southern Asia and South-Eastern Asia.[21] Inequality in coverage between urban and rural areas declined only by a small margin and remains substantial. Globally, one third of the rural population has access to piped water on the premises compared to more than three quarters of the urban population.

Figure 7.1

Mortality rates due to diarrhoeal diseases among children and older persons, by sex in South-East Asia (*as defined by WHO*)**, 2000 and 2012**
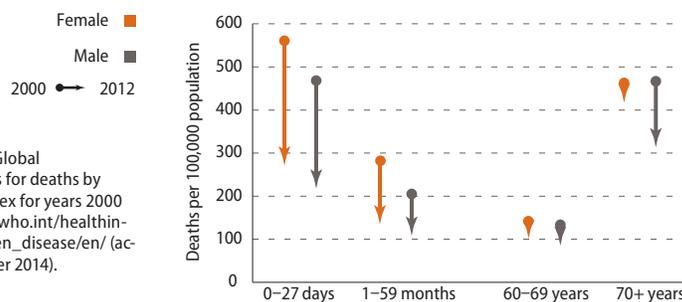
13 Estimates of populations with access to adequate drinking water differ from populations with access to improved water sources. People living at a distance greater than a 30-minute round trip from their water source (whether improved or not) were assumed to have access to inadequate water source. In addition, household water filtering and boiling drinking water were used as a proxy for further improvement beyond currently available improved water sources. Source: Prüss-Ustün and others, 2014.

14 Inadequate sanitation refers to unimproved sanitation as defined by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.

15 Prüss-Ustün and others, 2014.

16 *Ibid.*

17 WHO, 2014c.

18 Geldsetzer and others, 2014; Khera and others, 2015.

19 Malhotra and Upadhyay, 2013.

20 Kanamori and Pullum, 2013.

21 UNICEF and WHO, 2015.

Women have a higher burden of water collection than men in all regions with available data except Eastern and Southern Europe and Latin America and the Caribbean, where the role of water collection is nearly equally distributed between the sexes (figure 7.2). The gender disparities are apparent and are particularly higher in rural than in urban areas in sub-Saharan Africa and Asia. For example, in sub-Saharan Africa, the person usually collecting water is a woman in 65 per cent of rural households and a man in 10 per cent of households. In urban areas, the corresponding proportions are 33 and 10 per cent, respectively.

Figure 7.2

Distribution of households by person usually responsible for water collection, by region and by urban and rural areas, 2005–2013 (*latest available*)
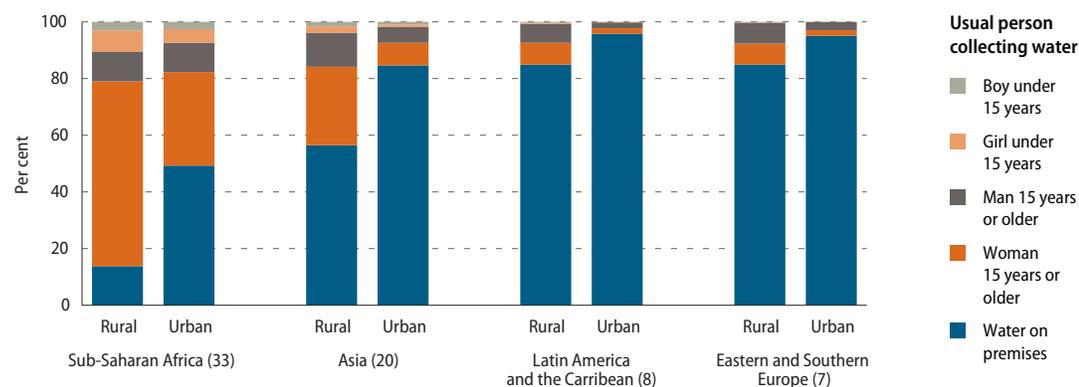
In developing countries, when water is not available on the premises, the time needed to get to a water source, collect the water, and return home averages 27 minutes in rural areas and 21 minutes in urban areas.[22] Typically, it takes more than one trip per day to cover the needs of a household. The time burden for water collection is highest in sub-Saharan Africa, where one round trip averages 33 minutes in rural areas and 25 minutes in urban areas. In Asia, it requires 21 minutes and 19 minutes, respectively. However, in many countries in these two regions the time burden is much greater, particularly in rural areas. In the rural areas of Mauritania, Somalia, Tunisia and Yemen, a single trip to collect water takes on average more than one hour.[23]

The data presented above, available for many countries in developing regions, are useful in providing an overview of the role of women and men in water collection and the distance to water sources. Still, they offer only a basic measure of women's and men's burden, because they do not take into account multiple trips to the water sources and the involvement of multiple household members in water collection. When available, further information from time use surveys can show the proportion of women and men actually involved in water collection and how much time they spend during a day on this activity. For example, time use data for selected countries in sub-Saharan Africa show that the total burden of water collection in a population is typically much higher for women than men (figure 7.3). For instance, in Malawi, daily water collection takes an average of 54 minutes of a woman's time and only 6 minutes of a man's time. In Guinea and the United Republic of Tanzania, women spend more than 20 minutes per day collecting water, while men spend less than 10 minutes. In Ghana and South Africa, the time spent on this activity is more equitably distributed between women and men.

22 Unweighted averages calculated by the United Nations Statistics Division based on data prepared by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2014a.

23 WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2014a.

Figure 7.3
Average time spent on water collection, by sex in selected sub-Saharan African countries

Note: Average time burden in the population is calculated by taking into account, in the denominator, those involved in water collection as well as those not involved. Data may not be comparable across countries since the data collection methods may differ.

Children, especially girls, are heavily involved in water collection

The burden of water collection weighs heavily on children. The statistics on the usual person collecting water in the household, available from Multiple Indicator Cluster Surveys (MICS) and DHS, presented previously, provide only a partial picture. A girl under age 15 is the main person collecting water in 4 per cent of all households in developing regions, and a boy of the same age group is the main water collector in 2 per cent of households.[24] However, the participation of children in water collection is undoubtedly much higher. Time use data, although available for only a small number of countries, illustrate this point. In Ghana, for example, about 90 per cent of children aged 10 to 17 participate to some degree in water collection.[25] In

Figure 7.4
Average time spent on water collection among children and adults, by sex in selected sub-Saharan African countries

Note: Data on children refer to the age group 5–14 years for Malawi and the United Republic of Tanzania and 6–14 years for Guinea. Average time burden in the population is calculated by taking into account, in the denominator, those involved in water collection as well as those not involved. Data may not be comparable across countries since the data collection methods may differ.
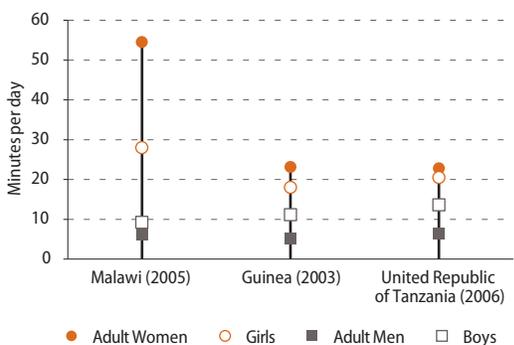
Rwanda, over 70 per cent of children aged 6 to 9 years and over 80 per cent of children aged 10 to 14 years participate in water collection.[26]

The cases of Guinea, Malawi and the United Republic of Tanzania show that the average time spent by children on water collection is lower than the time spent on this activity by adult women but higher than that spent by men (figure 7.4). Girls spend more time than boys on water collection, but the gender gap is narrower among children than among adults.

Women's work associated with water collection, as well as firewood collection discussed in the next section, remains undervalued, both at the level of national economies and within the household. Very few countries include the value of water and firewood collection when computing their gross domestic product.[27] Within the household, because water and firewood collection is not an income-earning or profit-generating activity, this type of work is rendered invisible. As a result, women's contribution to the economy and to a household's well-being remains largely unrecognized and their economic independence and power of decision-making limited.

2. Access to modern energy services

Access to modern energy services, including electricity and clean, modern cooking solutions, is essential to the achievement of sustainable development in developing countries, including to the achievement of a range of social and economic goals relating to poverty, health, education, equality and environmental sustainability.[28]

Electricity

Electricity affects the quality of life in many ways—for both women and men. Electricity facilitates learning and access to information and technology, and can reduce workload burdens associated with cooking, cleaning, fuelwood collection and the need to make daily food purchases due to the lack of refrigeration.[29] These time-consuming tasks tend to be performed more often by women than men (see Chapter 4 on Work). Modern appliances powered by elec-

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24 Unweighted averages calculated by the United Nations Statistics Division based on data for 66 developing countries provided by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2014b.

25 Ghana Statistical Service, 2012.

26 National Institute of Statistics of Rwanda, DFID and UN Rwanda, 2012.

27 Budlender and others, 2010.

28 International Energy Agency, 2014.

29 Köhlin and others, 2011.

tricity, such as stoves and microwave ovens, can also reduce the harmful effects of smoke, particularly on women and children, from burning solid fuels (see next section of this chapter).

Access to electricity increased in many developing regions

Between 1990 and 2010, the proportion of the global population with access to electricity increased from 76 to 83 per cent, with an additional 1.7 billion people gaining the benefits of electrification. Currently, the global access deficit stands at 1.2 billion people, with the biggest contributor being India, where 306.2 million people are without electricity. Access to electricity in urban areas globally was already high in 1990, at 94 per cent, and increased slowly to 95 per cent by 2010. By comparison, access in rural areas increased more steeply, from 61 to 70 per cent. Currently, 85 per cent of those without electricity are rural dwellers.[30]

Great improvements were noted in some developing regions (figure 7.5), including Northern Africa, South-Eastern Asia and Southern Asia. In stark contrast, access to electricity in Oceania and sub-Saharan Africa remains very low after two decades of slow progress. In 2010 in Oceania, only 25 per cent of the population had access to electricity (14 per cent in rural areas and 65 per cent in urban areas). In sub-Saharan Africa, 32 per cent of the population had electricity that year (14 per cent in rural areas and 63 per cent in urban areas).[31]

Solid fuels used for cooking

Solid fuels for cooking include coal, lignite, charcoal, wood, straw and dung. The dominant type of fuel used is wood, whether taken from dead trees and branches on the ground or from trees cut for fuelwood. Burning fuelwood causes smoke and solid particulate waste that contaminate the air and can cause respiratory problems if not vented outside the dwelling, such as through a chimney, window or by having the kitchen fire outside of living areas. In addition, the need for fuelwood increases the work burden of women and men and sometimes results in deforestation, thereby causing environmental harm.

Figure 7.5
Proportion of the population with access to electricity, 1990 and 2010
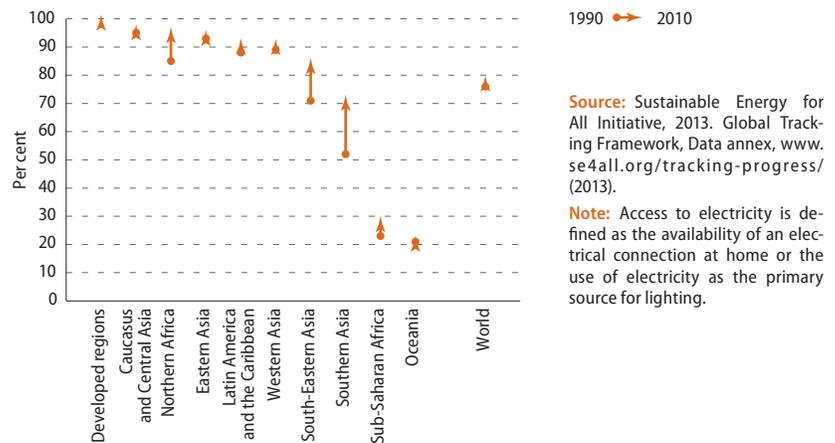
1990 ●➤ 2010

Note: Access to electricity is defined as the availability of an electrical connection at home or the use of electricity as the primary source for lighting.

Solid fuels continue to be used for cooking in many regions and countries

The global proportion of households using mainly solid fuels for cooking decreased from an estimated 53 per cent in 1990 to 41 per cent in 2010.[32] The number of people using solid fuels remained the same over that period, at around 2.8 billion. All WHO regions with the highest use of solid fuels—Africa, South-East Asia (which includes India as the most populous country in that region) and the Western Pacific (which includes China as the most populous country in that region)—showed declining trends in the proportion of households using such fuels, but mixed trends in the number of people exposed to their harmful effects. In Africa, the proportion of households using solid fuels declined from 82 per cent in 1990 to 77 per cent in 2010. The estimated number of persons using solid fuels in the region increased from 413 million in 1990 to 646 million in 2010 as a result of population growth that outpaced improvements in access to clean energy. South-East Asia showed a substantial decrease in the proportion of the population using solid fuels for cooking (from 83 per cent to 61 per cent), while the overall number of people exposed to their harmful effects remained at around 1.1 billion. The Western Pacific region showed a significant decline in both absolute and relative terms. The proportion of households using solid fuels declined from 66 to 46 per cent and the population exposed to the risk declined from 865 to 739 million.

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30 Sustainable Energy for All Initiative, 2013.
31 *Ibid.*

32 Bonjour and others, 2013.

Within developing regions, the current use of solid fuels for cooking varies widely across countries and by urban and rural areas. Solid fuels are the main type of fuel used in rural areas in all countries with available data in sub-Saharan Africa, more than half of countries in Asia, and in some countries in Latin America and the Caribbean. By comparison, solid fuels are less used in urban areas. Yet, in sub-Saharan Africa, the majority of urban households in 22 out of 32 countries with data use solid fuels for cooking. In urban areas in other developing regions, solid fuels are seldom used as the main type of fuel. Some exceptions include Haiti (in Latin America and the Caribbean) and Timor-Leste (in Asia).[33]

The health burden

Exposure to household air pollution is a major health risk.[34] The level of household pollution varies by type of fuel used, from practically none when electricity is available, to medium for natural gas and liquid fuels such as kerosene and liquid petroleum gas, to a high level when solid fuels are used. Among the solid fuels, biomass fuels—such as animal dung, crop residues and wood—produce the highest levels of pollutants, followed by coal and charcoal. The use of solid fuels for cooking, particularly indoors on an open fire or on simple traditional stoves, increases the exposure of household members to substantial amounts of pollutants with health-damaging potential, including particulate matter, carbon monoxide, nitrogen oxide, sulphur oxide and benzene.[35] Household use of solid fuels also contributes to ambient (outdoor) air pollution, particularly in regions with high use.[36]

Household air pollution is a major cause of disease

Women and men exposed to smoke from solid fuels have an increased risk of developing acute lower respiratory infections, chronic obstructive pulmonary disease (COPD) and lung cancer. Air pollution has also been linked to increased risk

for stroke and ischaemic heart disease. Household air pollution from using solid fuels is one of the main causes of disease globally, resulting in an estimated 4.3 million premature deaths[37] in 2012.[38] About a third (34 per cent) of these deaths were due to strokes, 26 per cent to ischaemic heart disease, 22 per cent to COPD, 12 per cent to acute lower respiratory disease, and 6 per cent to lung cancer.[39]

Women in developing countries are more exposed than men to smoke from solid fuels. Women spend more time than men cooking and thus they are more often exposed to episodes of high-intensity pollution;[40] women also spend more time than men indoors,[41] taking care of children and domestic chores (as discussed in Chapter 4 on Work). Consequently, women have a higher relative risk than men of developing adverse health outcomes due to exposure to smoke from solid fuels, including an estimated 21 per cent higher relative risk of COPD and lung cancer.[42] The relative risks for developing stroke and ischemic heart disease are similar for women and men.

The work burden

Dependency on firewood for cooking and heating creates a high work burden for women and men. Available time use data show that in some countries women spend more time than men collecting firewood, while in others men spend more time (figure 7.6). In Guinea, Lao People's Democratic Republic and Malawi, for example, women are disproportionately burdened. In Malawi, women spend an average of 19 minutes each day collecting firewood compared to only 3 minutes spent by men. By contrast, in Ghana, men spend 42 minutes per day compared to 25 minutes spent by women.

33 Data based on ICF International, DHS Program STAT Compiler, www.statcompiler.com/ (accessed March 2015). Data shown in Statistical Annex, http://unstats.un.org/unsd/gender/worldswomen.html.

34 WHO, 2006.

35 *Ibid.*

36 Bonjour and others, 2013.

37 WHO, 2014a. This figure is much higher than previous estimates, primarily due to the inclusion of new diseases, such as cardiovascular diseases.

38 Globally, 7 million deaths were attributable to the joint effects of household (HAP) and ambient air pollution (AAP) in 2012 (WHO, 2014a).

39 WHO, 2014a.

40 Ezzati and Kammen, 2002.

41 See for example Dasgupta and others, 2006.

42 WHO, 2014a.

Figure 7.6
Average time spent collecting firewood, by sex, selected developing countries
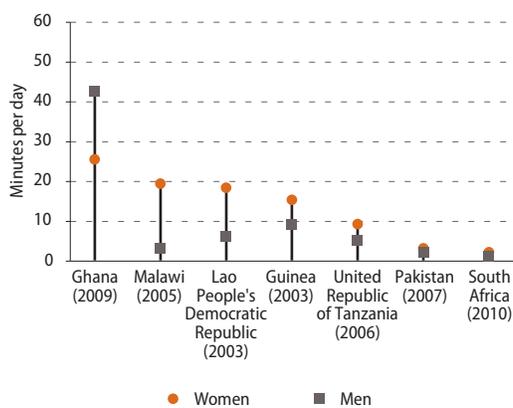
Source: Compiled by the United Nations Statistics Division from Fontana and Natali, Gendered Patterns of Time Use in Tanzania: Public Investment in Infrastructure Can Help (2008); Ghana Statistical Service, *How Ghanaian Women and Men Spend their Time. Ghana Time Use Survey 2009* (2012); Government of Pakistan, Federal Bureau of Statistics, *Time Use Survey 2007* (2009); National Statistical Centre of Lao People's Democratic Republic, *Social and Economic Indicators. Lao Expenditure and Consumption Survey 2002/03* (2004) Statistics South Africa, *A Survey on Time Use 2010* (2013); and World Bank, *Gender, Time Use and Poverty in Sub-Saharan Africa* (2006).

Note: Average time burden in the population is calculated by taking into account, in the denominator, those involved and not involved in firewood collection. Data may not be comparable across countries since data collection methods may vary.

3.   Extreme climate events and disasters

Disasters caused by weather-, climate- and water-related hazards are on the rise worldwide.[43] The Fifth Assessment Report of the Intergovernmental Panel on Climate Change confirmed that rising atmospheric concentrations of greenhouse gases have already changed weather patterns and the global water cycle. Both developed and developing countries are bearing the burden of repeated floods, droughts, temperature extremes and storms, but developing countries and the poor remain most vulnerable. It is predicted that climate change will further impact human lives and well-being as these extreme weather events grow in frequency and intensity.[44]

Natural disasters have different effects on women, men, girls and boys. Limited evidence presented in the next sections suggests that age, sex and differences in gender roles all affect mortality rates due to natural disasters. Gender roles and norms also play an important role in the aftermath of disasters, including in terms of access to livelihoods and participation in recon-

struction efforts. For example, gender roles and norms may limit the capacities and resources of women and girls to respond with resilience and to be in charge of their own futures, with consequential effects throughout entire families and communities. In addition, the likelihood of violence against women, an expression of the unequal power relationships between women and men, can increase as property and livelihoods are lost and as services and formal and informal protection mechanisms are disrupted.[45]

Yet, the systematic collection and compilation of statistics on gender and natural disasters that would indicate the scope and patterns of these specific impacts are lacking at the international level. Some of the constraints to such data collection include the complexity of post-disaster settings and the absence of standardized definitions and methodological tools for data collection.[46] Data and adequate gender analyses are also largely absent in research journals and publications of international agencies involved in providing humanitarian aid in crises related to natural disasters. A recent review[47] of these sources showed that data disaggregated by sex were available for only eight disasters or groups of disasters since 1988 in developing countries that were not members of the Organisation for Economic Co-operation and Development (OECD). The review also revealed a number of accounts of women being disproportionately affected relative to men during disasters, but these were based almost exclusively on qualitative data. Furthermore, some of the few data-based materials used were flawed by gender bias in reporting, methodological errors, and mixing of information based on different definitions and indicators. Thus, in a world that expects an increase in extreme weather events, the lack of adequate gender statistics and analyses continues to undermine efforts to reduce disaster risk and increase the effectiveness of humanitarian responses.[48]

Mortality

The lives of thousands of women and men are lost worldwide each year as a result of natural disasters. Between 1995 and 2014, an estimated 241,400 deaths occurred as a result of storms

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43 United Nations Environment Programme, 2012.

44 Intergovernmental Panel on Climate Change, 2014.

45 United Nations Economic and Social Council, 2013.

46 Tschoegl, Below and Guha-Sapir, 2006; Guha-Sapir and Below, 2002.

47 Eklund and Tellier, 2012.

48 United Nations Economic and Social Council, 2013.

or tropical cyclones, 158,700 due to extreme temperatures, 154,000 to floods, and 22,500 to droughts. In addition, 746,800 lives were lost as a result of earthquakes.[49]

Age, sex and differences in gender roles and norms are significant factors in mortality due to natural disasters

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Mortality differences by sex vary from one country to another and by type of hazard. For example, in Myanmar, women and girls represented 61 per cent of the 85,000 deaths and 53,000 people missing after the 2008 cyclone.[50] In Sri Lanka, women, children and older persons represented the majority of casualties in the 2004 tsunami. Out of the more than 13,000 dead and missing persons estimated by the post-tsunami census conducted in Sri Lanka, 65 per cent were women.[51] The share of female deaths was highest among those aged 19 to 29, at 79 per cent. Female deaths outnumbered male deaths in other countries hit hard by the 2004 tsunami, including several sites in Indonesia and India.[52] Another finding that cuts across affected countries is that children and older adults died in greater proportions than adults in their prime age.[53]

The explanations of the differences between female and male mortality during the 2004 tsunami have been formulated mainly in terms of gender. Women's and girls' higher vulnerability was associated with lower access to information, the lack of life skills such as swimming ability, constrained mobility outside their home, and the increased vulnerability of women staying home with children at the time of the sea-level rise.[54] Gender differences were not the only factor. The physiological attributes of females and males at different ages have a substantial impact on vulnerability during tsunamis. For example, a quantitative assessment of sex and age differences in mortality based on a longitudinal survey before and after the tsunami in Indonesia showed that some of the explanation lies in differences in physical strength, stamina

and running and swimming ability.[55] Overall, prime-age males were the most likely to survive the tsunami because they were the strongest. Their presence in the household at the time of tsunami also had a protective effect on the survival of wives and children.[56]

A different sex and age pattern of mortality emerged in the 2011 earthquake and tsunami in Japan. In 2011, when the Great East Japan Earthquake and subsequent tsunami hit the northeast coast of Japan, 8,363 female deaths and 7,360 male deaths were recorded in the prefectures hardest hit.[57] The most affected were older persons (figure 7.7). The numbers of female and male casualties were similar among children and young adults. At age 70 and above, nearly 1,000 more women than men died. This was higher than expected based on the sex distribution in the older population.[58]

Figure 7.7

Deaths due to the 2011 East Japan Earthquake and tsunami by age and sex, Japan
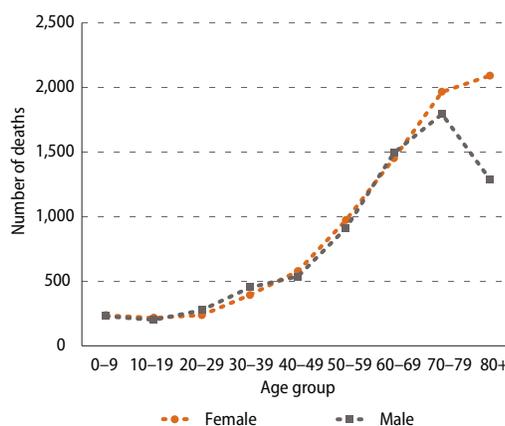
Source: Government of Japan, Disaster prevention and reconstruction from a gender equal society perspective. Lessons from the Great East Japan Earthquake (2012).
Note: Data refer to the worst-affected prefectures, including Iwate, Miyagi and Fukushima.

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49 Computed by the United Nations Statistics Division based on data from the Centre for Research on the Epidemiology of Disasters (CRED) and Université Catholique de Louvain, 2015.

50 Myanmar Government, Association of Southeast Asian Nations and United Nations, 2008.

51 Sri Lanka Department of Census and Statistics, 2005.

52 Oxfam International, 2005.

53 Frankenberg and others, 2011.

54 Oxfam International, 2005.

55 Frankenberg and others, 2011.

56 *Ibid.*

57 Iwate, Miyagi and Fukushima prefectures.

58 Government of Japan, 2012.

In the United States of America, however, more men than women have died as a result of natural hazards, suggesting that men are more inclined to risk-taking or more involved in activities that put them at risk. During 2004–2013, 3,777 males and 2,211 females died as a result of natural hazards.

The leading natural hazards in terms of fatality were heatwaves, tornados, hurricanes and floods.[59] Male deaths outnumbered female deaths in all major categories of natural hazards and at almost all age categories. The exceptions were persons over 80 years (figure 7.8).

Men also accounted for the majority of deaths due to meteorological disasters (storms, cold weather, floods, typhoons and lightning) in the Republic of Korea between 1990 and 2008. For men, most deaths occurred outdoors, whereas most women died in residential areas. Men accounted for more than half of deaths due to drowning in a river (61 per cent), sea (66 per cent) and in a sunken vessel (97 per cent). Women accounted for more than half of deaths due to structural collapse (52 per cent) and drowning in a submerged house (56 per cent).[60] Another example of where more adult men than adult women died as a result of natural disasters was the 1999 floods in Hunan province, China.[61]

Older persons, especially women in some settings, are most vulnerable to heatwaves

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Older persons are among those most vulnerable to heatwaves,[62] an increasingly relevant issue since all countries show a rise in the proportion of older persons in the population (see Chapter 1 on Population and families). A review of research studies[63] showed that deaths due to cardiovascular and respiratory conditions were consistently reported as having increased, along with respiratory admissions to hospitals among older persons during hot days and heatwaves.[64] Both biological and social factors explain this susceptibility to high temperatures. Biologically, the body's responses to the environment deteriorate with ageing. In addition, both thermoregulation and risk perception can be altered by the use

Figure 7.8

Total number of deaths due to natural hazards, by sex and age group, United States of America, 2004–2013
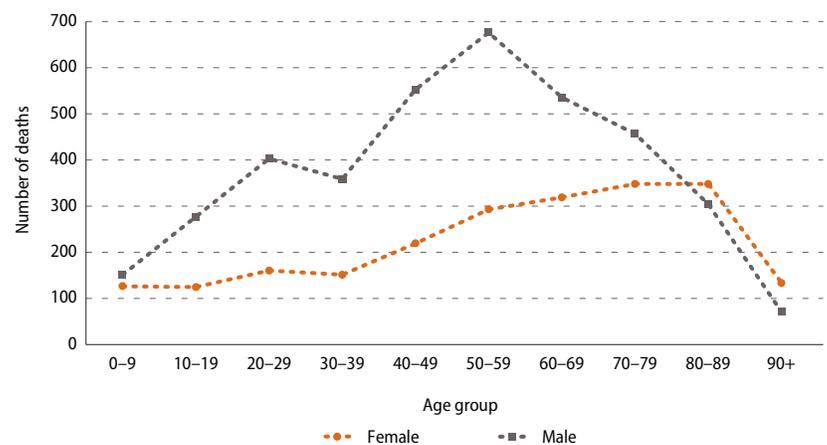
Source: USA National Weather Service, Natural hazards statistics. National Oceanic and Atmospheric Administration (NOAA), http://www.nws.noaa.gov/om/hazstats.shtml (accessed March 2015).

of medications or by dementia. Socially, living alone (as many older women in developed countries do) may also contribute to the susceptibility of older persons to heat, especially when confined to bed or not taking steps to avoid the heat and to increase cooling and hydration.[65]

Older women were significantly worse off during heatwaves in various sites, including during the 2003 summer heatwave in Europe, heatwaves that occurred between 1995 and 2006 in Australia and in 2003 in the city of Shanghai, in China.[66] For example, the excess mortality due to the 2003 summer heatwave in Europe was higher for older persons and women. In Rome and Milan, almost all excess mortality was among persons aged 75 and over.[67] Nearly three quarters of excess deaths were female, largely reflecting the higher share of women among the older population. In France, the mortality observed during the heatwave was 70 per cent higher than expected for women and 40 per cent for men.[68] Similarly, in India, a higher increase in the mortality of women than men was noted during the 2010 heatwave in Ahmedabad (in the western state of Gujarat). The average number of deaths per day the year before and after the heatwave was 63 for men and 42 for women. During the heatwave from 19 to 25 May, the mortality increased by an additional 53 male and 61 female deaths per day.[69]

59   USA National Weather Service, 2015.
60   Myung and Jang, 2011.
61   Eklund and Tellier, 2012.
62   Åström, Forsberg and Rocklöv, 2011.
63   Articles published in English in PubMed between 2008 and 2010.
64   Åström, Forsberg and Rocklöv, 2011.

65   *Ibid.*
66   *Ibid.*
67   Michelozzi and others, 2005.
68   Pirard and others, 2005.
69   Azhar and others, 2014.

Livelihoods and participation in reconstruction efforts

Relative to men, women's capacity to recover after natural disasters in some countries may be more limited due to their lower education levels. Women may also have specific skills that confine them to certain occupations that may put them at greater risk of unemployment during natural disasters or that are less in demand during post-disaster reconstruction efforts. For example, a study of urban flooding in 2011 in Lagos, Nigeria,[70] showed that women with low social and economic status, but not women in general, were most vulnerable. Another study, in Sumatra, Indonesia, showed that after the 2004 tsunami, better educated women and men were able to adjust to changes much faster than those with little education, perhaps reflecting not only differences in skills, but also a greater accumulation of economic and social resources.[71]

Women's access to work in post-disaster settings may be more difficult than men's

Women may face higher barriers than men in accessing work in post-disaster settings. These include the increased burden of caring for children and family members when public services are interrupted. Women may also experience more difficulties finding employment when job losses occur in those economic sectors and occupations where women dominate, and when newly created jobs are concentrated in sectors and occupations dominated by men.[72] For example, in the Canterbury region of New Zealand, women's employment fell by 10 per cent compared to 7 per cent for men after the 2010 and 2011 earthquakes and tsunami. The difference was mostly due to larger falls in employment in female-dominated industries, including retail, hotels and accommodation, health care and social assistance. In Chile, in regions suffering greater net job losses as a result of the 2010 earthquake and tsunami, around 46 per cent of jobs lost were held by women, but only 15 per cent of the jobs created went to them.[73]

In some instances, gender stereotypes were perpetuated in post-disaster temporary employment programmes. In Japan, after the 2011 earthquake and tsunami, men were given the role of clearing rubble while women prepared meals at evacuation sites, and while daily allowances were often provided for clearing rubble, no such compensation was provided for food preparation.[74] In Mexico, 70 per cent of the temporary jobs offered by federal and local governments after disasters in 2004–2005 were assigned to men because the work required involved tasks traditionally considered masculine, such as clearing rubble from roads and bridges and constructing houses.[75]

Nevertheless, issues of gender inequality in participation in reconstruction efforts are increasingly recognized. United Nations entities and donor and aid-receiving countries are committed to mainstreaming gender into humanitarian actions, including in post-disaster settings.[76] For example, nearly three quarters of the 2012 humanitarian funding from Germany and Sweden went to projects designed to advance gender equality.[77] These types of projects also received nearly three quarters of all aid supporting the Typhoon Haiyan Strategic Response Plan in the Philippines from November 2013 to October 2014.[78]

Participation in decision-making in post-disaster settings

Women are less involved than men in decision-making related to recovery efforts and risk reduction strategies in some settings

Women may participate less than men in bodies involved in post-disaster reconstruction efforts. After the 2011 earthquake and tsunami in Japan, very few women were involved in running communities, including in local aspects of temporary housing. Women represented only 11 per cent of the members of local committees working on recovery and reconstruction plans in 38 municipalities. A total of nine municipal committees had no female members. Women were also less involved than men in higher-level decision-mak-

70   Ajibade, McBean and Bezner-Kerr, 2013.
71   Frankenberg and others, 2013.
72   Venn, 2012.
73   *Ibid.*
74   Government of Japan, 2012.
75   Castro García and Reyes Zúñiga, 2009.
76   United Nations Economic and Social Council, 2013.
77   United Nations Economic and Social Council, 2013. Projects designed to advance gender equality include humanitarian aid projects coded 2a (the project has the potential to contribute significantly to gender equality) and 2b (projects with the principal purpose of advancing gender equality) on the gender marker scale.
78   United Nations Office for the Coordination of Humanitarian Affairs, 2014.

ing. For example, only 9 per cent of the members of the Regional Disaster Management Council were women. There was only 1 woman among the 15 expert members of the Reconstruction Design Council; 2 women among the 19 members of the Study Group of the Council; and 4 among the 15 members of the Reconstruction Promotion Committee. Women were severely underrepresented in the Central Disaster Management Council itself, which had only 2 women among its 27 members.[79]

Pre-disaster gender inequalities were also mirrored in some of the post-2004 tsunami recovery processes in Indonesia and Sri Lanka. In relief camps in Aceh, Indonesia, women and girls were in charge of organizing meals and taking care of children and older family members, but were not involved in the governance of the camps and were not represented in the negotiation processes with aid organizations and government institutions that provided supplies. In Sri Lanka, women's participation in recovery planning and management reached up to 40 per cent in some districts in the South, but was less than 10 per cent in districts in the East where sociocultural traditions are more conservative.[80]

Gender mainstreaming in national disaster risk reduction policies and strategies is ongoing in only a few countries. For example, in Latin America and the Caribbean, only 20 per cent of countries reported advances in incorporating gender into their disaster risk reduction policies and strategies; 23 per cent reported having adopted measures to incorporate a gender approach in recovery efforts; and 15 per cent had vulnerability and capacity evaluations broken down by sex. In terms of normative frameworks, only eight countries mentioned integrating gender as a cross-cutting dimension in their national policies on disaster risk management, including Bolivia, Costa Rica, Honduras, Mexico, Nicaragua, Panama, Paraguay and Peru. Women were severely underrepresented among decision-makers in top positions. In the entire region, only three women had leadership positions in entities in charge of risk management.[81]

B. Involvement of women and men in the management of the environment

Loss of natural resources and environmental degradation are a growing concern worldwide. According to *The Millennium Development Goals Report 2015*, the stress on renewable water resources is severe in some regions, particularly Northern Africa and the Arabian Peninsula in Western Asia. In 2014, only 15.2 per cent of terrestrial and inland water areas and 8.4 per cent of coastal marine areas (up to 200 nautical miles from shore) were protected. The annual net loss of forests declined from 8.3 million hectares worldwide in 1991–2000 to 5.2 million hectares in 2001–2010.[82] Nevertheless, the loss of these forests continues to threaten biodiversity, increase soil erosion and contribute to the high level of emissions of carbon into the atmosphere.[83]

Emissions of greenhouse gases due to human activity, of which carbon dioxide and methane are the most significant, are causing climate change.[84] The world has almost eliminated the use of ozone-depleting substances, but global emissions of carbon dioxide (CO_2) have shown an overall upward trend in the past decades and are now more than 50 per cent higher than their 1990 level.[85]

Environmental protection, and consequently sustainable development, require that both women and men are actively involved, including through daily activities aimed at preserving natural resources and through participation in local and high-level environmental decision-making. Moreover, as emphasized in the 1995 Beijing Platform for Action, the involvement of women in environmental decision-making at all levels is a key step to ensuring that women's issues and gender perspectives on the environment are included in policymaking from the local to national and global levels.[86]

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[79] Government of Japan, 2012.
[80] Ariyabandu, 2009.
[81] UNDP and UNISDR AM, 2013.

[82] United Nations, 2015.
[83] *Ibid.*
[84] Intergovernmental Panel on Climate Change, 2014.
[85] United Nations, 2015.
[86] United Nations, 1995.

1. Individual participation in environmental protection activities

Differences in women's and men's participation in environmental protection are rooted in gender roles and responsibilities

Women's and men's involvement in environmental protection varies widely across countries and by type of activity.[87] Recycling is one of the most widespread activity. Taking active steps to separate recyclables, such as paper, metal and glass from refuse is an easy and effective way to make a positive environmental contribution. More people are recycling than in the past. For example, in 19 developed countries with trend data, the average proportion of women recycling increased from 61 per cent in 2000 to 78 per cent in 2010,[88] while the proportion of men recycling rose from 58 to 74 per cent. Overall, women are slightly more involved than men, which is somewhat linked to the gender division of domestic labour (see Chapter 4 on Work). A few examples of countries in which women are more involved than men in recycling include Argentina, Austria, Croatia, the Czech Republic, Latvia, Mexico, the Republic of Korea, Sweden and the United Kingdom.[89]

Cutting back on driving to reduce pollution from automobile exhaust is another common contribution to environmental protection. Individual use of mass transit, consolidating errands into fewer trips, carpooling, and/or substituting biking or walking for driving can all be effective means for reducing pollution. In 19 developed countries with available trend data, the proportion of women driving less for the purpose of protecting the environment increased from 14 per cent in 2000 to 24 per cent in 2010. For men, the increase was from 14 to 20 per cent. In about half the countries with available data for 2010, the proportion of women cutting back on driving was higher than the proportion of men by 5 percentage points or more. Japan was the one notable exception; there, men cut back on driving more than women by 6 percentage points.[90]

By comparison, contributing financially to environmental causes is adopted in similar proportions by women and men in most countries. A notable exception is Finland, where 31 per cent of women and 21 per cent of men have contributed in the past 5 years to an environmental organization.[91]

Differences between women and men in attitudes towards paying higher taxes and paying higher prices in order to protect the environment vary dramatically from one country to another. For example, in Argentina, Germany, Israel, the Republic of Korea, the Russian Federation and the United Kingdom, the proportion of men willing to pay higher prices is higher than the proportion of women by 5 percentage points or more. However, in Denmark, Finland, New Zealand and Norway, the proportion of men is lower than the proportion of women by 5 percentage points or more. Willingness to pay higher taxes for environmental gains is more often reported by men than women in a number of countries (as in Argentina, Israel, France, Germany, the Republic of Korea, Spain, Turkey and the United Kingdom), perhaps mirroring men's greater access to income (see Chapter 8 on Poverty). In many other countries, women and men have similar attitudes, while Denmark and Norway are breaking the pattern; in those two countries, women's propensity to pay higher taxes in order to protect the environment is higher than men's by 4 and 7 percentage points, respectively.[92]

2. Local decision-making on natural resources

Women are often excluded from local decision-making with regard to natural resources. Low participation rates among women in the management of local natural resources may be linked to gender inequality in roles, responsibilities and power, including women's time constraints, unequal domestic work burdens, lack of information, lack of support from men, and threats of hostility or punishment.[93] Other factors may also play a role. For example, where membership in local management groups is restricted to one household member, male heads of household may become the default representative.[94] Moreover, even if women

87 Data on 31 countries based on the ISSP Research Group, 2012. Data shown in Statistical Annex, http://unstats.un.org/unsd/gender/worldswomen.html.

88 Unweighted averages computed by United Nations Statistics Division based on data from the ISSP Research Group: International Social Survey Programme.

89 Data for 31 countries based on the ISSP Research Group, 2012. Data shown in Statistical Annex, http://unstats.un.org/unsd/gender/worldswomen.html.

90 *Ibid.*

91 *Ibid.*

92 Data based on the ISSP Research Group, 2012. Data shown in Statistical Annex, http://unstats.un.org/unsd/gender/worldswomen.html.

93 See, for example, Mairena and others, 2012.

94 Agarwal, 2001.

are members of local management groups, their opinions may not be given the same weight as those of men, or may be discouraged altogether.[95]

In some cases, women in local management of natural resources are able to bring positive changes; in others, however, they continue to face challenges. For example, some case studies in India and Nepal showed that greater participation by women in forest governance can foster more equitable distribution practices for forest access and goods, greater influence over funding allocations for women, stronger efforts to overcome fuel shortages, and improved conservation practices and resource regeneration.[96] However, other studies, in Bolivia, Kenya, Mexico and Uganda showed that forest user groups with higher participation of women tended to be less effective due to women's lower access to technology, labour constraints and limited authority.[97]

Women are underrepresented in local management of forests

Women participate far less than men in formal forest user groups. Their low participation in forest management, illustrated previously in research literature analysing results from qualitative and small quantitative case studies in developing countries, has been confirmed by a comparative multi-country study[98] conducted in 2005–2008 in 24 developing countries covering the major tropical forest regions of Africa, Asia, and Latin America and the Caribbean.[99] Gender parity in local forest governance is far from being achieved in each of the three regions covered (figure 7.9). The study also showed that in about half the sites covered by the study, women were not involved at all in forest user groups.

While low participation of women is often considered in the context of developing countries, this is also an issue in developed countries such as Canada, where women have been shown to be underrepresented in forest governance. For example, a 2006 national survey of public advisory committees revealed that only 17 per cent of committee members were women.[100]

Figure 7.9

Distribution of households by sex of the household member participating in forest user groups, by region, 2005–2008

Source: Adapted from Sunderland and others. Challenging perceptions about men, women, and forest product use: a global comparative study, *World Development* (2014).

Note: Data based on 24 developing countries covering the major tropical forest regions in Africa, Asia, and Latin America and the Caribbean. Only households with at least one member in a forest user groups were taken into account.

3. High-level environmental decision-making

Women hold fewer positions of power and decision-making related to the environment than men

As shown in Chapter 5 on Power and decision-making, women still hold a minority of decision-making positions in most public and private institutions. This is also the case when it comes to environment-related institutions. Women are underrepresented in the workforce and management of environment-related institutions, as illustrated by a 2013 global survey[101] of National Meteorological and Hydrological Services (NMHS) of member countries of the World Meteorological Organization (WMO). Globally in 2013, women represented 33 per cent of the global workforce and 19 per cent of the senior management in NMHS. Gender parity was far from being achieved even among new staff. Women represented 39 per cent of the NMHS staff recruited in 2012.[102] This was the result of a small pool of women interested and educated in meteorological and hydrological services, as well as policies and practices in staff recruitment that perpetuate gender imbalances in the workforce and management. As at 2013, only 41 per cent of WMO members had implemented an action plan for gender mainstreaming in the NMHS, and 48 per cent had human resources policies that promoted gender equality and the empowerment of women.

Moreover, women hold only a few political and non-political decision-making positions in gov-

95 *Ibid.*

96 Agarwal, 2001; Agarwal, 2009a; Agarwal, 2009b; Agrawal and others, 2006; Agrawal and Chhatre, 2006.

97 Mwangi, Meinzen-Dick and Sun, 2011.

**98** The study was developed under the framework of the Poverty Environment Network, a project of the Center for International Forestry Research.

99 Sunderland and others, 2014.

100 Reed, 2010.

101 The survey covered 83 member countries of the World Meteorological Organization (WMO) (43 per cent of all WMO member countries).

102 World Meteorological Organization, 2013.

ernment ministries related to the environment. In Europe, for example, women are underrepresented among ministers of environment, climate change, transport and energy in ministries or departments of national governments.[103] As at December 2014, the average share of women was 28 per cent among senior ministers[104] and 27 per cent among junior ministers related to the environment.[105] Women were also underrepresented among senior non-political administrative positions within environment-related ministries; 30 per cent among level-1 administrators and 38 per cent among level-2 administrators.

Finally, less women than men represent their governments at the international level. For instance, the current composition by sex of delegations to meetings of parties to the United Nations Framework Convention on Climate Change (UNFCCC) [106] and its Kyoto Protocol, and of UNFCCC boards and bodies remains inequitable overall. In 2013, women represented 36 per cent of delegates to the nineteenth session of the Conference of the Parties, the highest political decision-making body of the Convention. The Bureau of the Conference included three women among its 11 members.[107] Women were also underrepresented (27 per cent) among the officers elected to the bodies established under the Convention and its Kyoto Protocol to provide scientific and technological advice and support to the Conference. In only three out of 12 bodies was women's representation higher than 40 per cent.[108]

103 European Commission, 2015.

104 Members of the government who have a seat on the cabinet or council of ministers.

105 Members of the government who do not have a seat on the cabinet.

106 The United Nations Framework Convention on Climate Change is an international treaty that provides a framework for the 195 parties to work together to consider what can be done to limit average global temperature increases resulting in climate change and to cope with its impact.

107 United Nations Framework Convention on Climate Change, 2014.

108 *Ibid.*

Chapter 8

Poverty

Key findings

- Non-partnered women with children in developed and developing regions and older women in one-person households in developed regions have higher poverty rates than men with the same characteristics.
- Women's access to their own cash labour income remains low in developing regions, particularly in sub-Saharan Africa; and the gap between women and men in this regard is large in both urban and rural areas.
- Many women are excluded from economic decision-making within their own households. On average 1 in 3 married women in developing countries have no say about major household purchases, and 1 in 10 are not consulted on how their own cash earnings are spent.
- The use of formal financial services is lower for women than men in all regions of the world; globally, 47 per cent of women have an individual or joint account at a formal financial institution compared to 55 per cent of men, with wider gaps in some countries in the Middle East and North Africa and in Southern Asia.
- The number of countries with unequal property and inheritance rights for women and men overall declined; however, in nearly a third of developing countries, laws do not guarantee the same inheritance rights for women and men, and in an additional half of countries discriminatory customary practices against women persist.

Introduction

A life free from poverty and hunger is a fundamental human right. As stated in the Universal Declaration of Human Rights, adopted by the United Nations General Assembly in 1948, everyone has the right to a standard of living adequate for health and well-being, including food, clothing, housing and medical care and necessary social services. However, the eradication of poverty - an essential requirement for sustainable development[1] and the central focus of the 2030 Agenda for Sustainable Development - remains one of the greatest challenges facing the world today.

This chapter analyses the economic dimensions of poverty from a gender and life-cycle perspective. The first part takes into account household-level data on poverty. It shows that in both developed and developing countries working-age women are more likely than men to be poor when they have dependent children and no partner to contribute to the household income.

At older ages, women in developed countries are more likely than men to be poor, particularly when living in one-person households. The difference in poverty rates between women and men, including among lone parents with dependent children and among older persons, is narrowing slightly in some countries while persisting in others. In the second part of the chapter, the focus of the analysis shifts to women's economic dependency on men as reflected by individual-level indicators of access to economic resources. It shows that, in developing regions, women's access to own cash labour income and financial services is systematically low. Existing statutory and customary laws continue to restrict women's access to land and other assets, and women's control over household economic resources remains limited.

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1 United Nations, 2012, para 2.

Box 8.1
Gaps in gender statistics on poverty

Poverty remains one of the most problematic areas of statistics in general, and for gender statistics in particular. Household-level data on poverty, measured traditionally based on either household income or consumption, are absent for more than a third of developing countries.[a] This is without taking into account any disaggregation of data from a gender perspective. In addition, the comparability of statistics across countries and over time, continues to be hampered by a lack of harmonization in measurement, including in terms of poverty lines, the calculation of income or consumption aggregates, the equivalent scales to adjust for differences in age and sex composition of households and prices to adjust for differences in the cost of living.[b]

Household-level poverty data are underutilized from a gender perspective

Poverty data disaggregated from a gender perspective are not produced regularly by countries around the world and are not systematically compiled at the global level. However, some progress has been made in the availability of statistics on gender and poverty, driven by a few initiatives at the regional level. Data on poverty and gender are estimated or compiled systematically by regional agencies in Europe and in Latin America and the Caribbean. For the other regions, additional data are provided in national poverty reports by a small number of countries, available for ad hoc compilation, as was done for this report. The total number of countries with any poverty statistics disaggregated by sex between 2000 and 2014 and available for use in this report is 78. Among these, 34 are European and other developed countries. Among developing countries with available data, 23 are in Africa, 16 in Latin America and the Caribbean, and 5 in Asia.

Data disaggregated only by the sex of household members or head of household have limited value in capturing the gender dimensions of poverty.[c] As shown in this chapter, more detailed disaggregations are needed, including by the sex, age, and other demographic and social characteristics of all household members, and by types of households (or living arrangements), taking into account the composition of those households. However, such expanded disaggregated data remain largely unavailable in sub-Saharan Africa (where poverty is increasingly concentrated), Asia and Oceania.

Generating adequate poverty counts for women and men remains challenging due to unaccounted intra-household inequality

One major limitation of using household-level poverty data from a gender perspective is the lack of information on inequality in the consumption of goods and services among various household members.

The household-level approach assumes that all individual incomes are pooled together, the resources are shared equitably, and all household members enjoy the same level of well-being. Existing data on intra-household sharing of resources suggest that income is most often pooled together within the household, but not always,[d] and the allocation of expenditures may reflect a gender dimension. Systematic national statistics are missing on this topic, and some of the statistical evidence on discrimination against women and girls is inconclusive[e] and dependent on the statistical methods used.[f] Research has shown, however, that in some specific settings, particularly in the context of limited economic resources, inequality in the distribution of resources among girls and boys is evident, especially when it comes to private education, time devoted to child care, and access to health services.[g]

Standard household-level measures of poverty do not take into account inequality within the household because it is difficult to know how household income/expenditure is distributed to each household member, particularly when it comes to common goods such as food, housing, water supply or sanitation. In addition, when different patterns of consumption are observed, it is not always clear if they are related to different levels of individual biological need, to different preferences or to the unequal distribution of resources.

Based on household-level measures, if in the same household women consume or spend less than is needed to function properly physically and socially, while men consume what is needed or more, both are still considered to have the same poverty status, either poor or non-poor, depending on the average consumption estimated at the household level. In countries where women have a lower status than men and unequal access to resources within the household, the simple disaggregation of poverty counts by sex will lead to underestimated gender gaps in poverty, because additional poor women might be found in some non-poor households.

Currently, there is no single straightforward measure of poverty from a gender perspective, and no single internationally agreed-upon indicator that can give more meaningful poverty counts for women and men. That would require taking into account intra-household inequality, including through the use of some individual-level indicators on selected dimensions of poverty (see box 8.2 on multidimensional poverty). Nevertheless, recent methodological developments suggest a shift in thinking on poverty and gender from a perspective focused on the household as an economic unit, to women and men with individual agency (capacity for individualized choice or action) and specific constraints, needs and preferences. This would include the measurement, at the individual level, of asset ownership (see box 8.5); individual experience of food insecurity (see box 8.4); and individual access to formal financial services (section B.2).

a   United Nations, 2014b.
b   World Bank, 2015.
c   United Nations, 2015a.
d   European Commission, 2013.
e   Duflo, 2012.
f   See, for example, Zimmermann, 2012.
g   See for example, Koohi-Kamali, 2008; Barcellos, Carvalho and Lleras-Muney, 2014; Fuwa and others, 2006; Parpiev and others, 2012 ; Gong, van Soest and Zhang, 2005; Azam and Kingdon, 2013; Duflo, 2012; Doss, 2013.

A. Household-level income/ consumption poverty

Globally, the number of people in extreme poverty living on less than $1.25 a day[2] fell from 1.9 billion in 1990 to 1 billion in 2011.[3] The proportion of the global population living in extreme poverty (which is referred to as the rate of extreme poverty) fell during the same period from 36 to 15 per cent at the global level and from 47 to 18 per cent in developing regions. A further reduction in poverty is projected by 2015, including a drop in the number of people in extreme poverty by another 175 million. This would place the extreme poverty rate in 2015 at 12 per cent globally, and at 14 per cent in developing regions.[4]

Progress in poverty reduction has been uneven. The largest reductions were observed in Eastern and South-Eastern Asia. Progress was more modest in other regions of the developing world. The poverty rate in sub-Saharan Africa, in particular, declined slowly over the period, from 57 per cent in 1990 to 47 per cent in 2011. However, the number of extremely poor in that region increased 1.4 times as a result of a population growth rate that exceeded the rate of poverty reduction. Indeed, sub-Saharan Africa has become the largest contributor to the global number of extremely poor (41 per cent in 2011), recently surpassing Southern Asia.[5]

While estimates of poverty rates[6] and the number of poor people are available for the majority of countries, based either on international or national poverty lines, gender differences in poverty are not as easily captured through statistics. As discussed in box 8.1, poverty is traditionally measured on the basis of income and expenditure aggregated at the household level. Household-level data on poverty can be attributed to all members of a household at the analysis stage, thus enabling the calculation of poverty rates and counts disaggregated by sex and other characteristics of the household members. While

such data do not take into account the inequality between women and men *within* households, they can show whether there are gaps in poverty rates between women and men due to differences in living arrangements. That is, they take into account inequality *between* households.

Differences in poverty rates between women and men are more evident when focusing on population subgroups by selected age groups or other demographic characteristics associated with specific living arrangements, such as marital status, as will be shown in the next sub-section. However, when all ages or other characteristics are combined (averaged) and poverty data are disaggregated only by the sex of household members, very little of the gender dimension of poverty is revealed. Female and male poverty rates are similar in most countries with data available, while slightly higher for women than men in a few countries, mainly from developed regions.[7]

1. Poverty across age groups

A focus on stages of life cycle and living arrangements, as captured by data disaggregated by age and marital status of adult[8] household members, reveals more meaningful gender differences in poverty. These differences in poverty rates between women and men may vary across countries depending on gender differences in living arrangements and specific country contexts. Such contexts include different access for women and men to labour market income and the various components of the welfare/social protection systems.[9]

In European countries, for example, large differences in poverty rates between women and men are found among the older age groups and to a lesser extent in young adulthood (figure 8.1), when women and men more often live without a partner as widowed, divorced/separated or never married persons. At age 65 and over, women are at a higher risk of poverty than men in most European countries. Between ages 18 to 24, the gender difference in poverty rates, most often to the disadvantage of women, is noticeable only in a smaller number of countries.

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2 The $1.25 a day poverty line is at 2005 purchasing power parity (PPP) prices, and represents the average of the national poverty lines of the 15 poorest developing countries in the same year.

3 United Nations, 2015b.

4 *Ibid.*

5 The World Bank and the International Monetary Fund, 2015.

6 The poverty rate (or poverty incidence or headcount index) is the proportion of the population living in households with income or consumption expenditures below the poverty line. A poverty line may be internationally defined in terms of a single global standard, such as that set by the World Bank of $1.25 per day for extreme poverty, or it may be country-specific. It also may refer to an absolute or a relative standard.

7 Data compiled by the United Nations Statistics Division (as at April 2014). Data shown in the Statistical Annex available at http://unstats.un.org/unsd/gender/worldswomen.html.

8 There are no significant differences in the living arrangement of girls and boys (younger than 15), as shown in Chapter 1 on Population and families. Therefore, the child poverty rates (without taking into account intrahousehold inequality) are similar between the two sexes. However, more boys than girls are found among the poor because there are more boys than girls in that age group of population.

9 Brady and Kall, 2008.

Figure 8.1
Poverty rate by sex and age group of household members, European countries, 2012
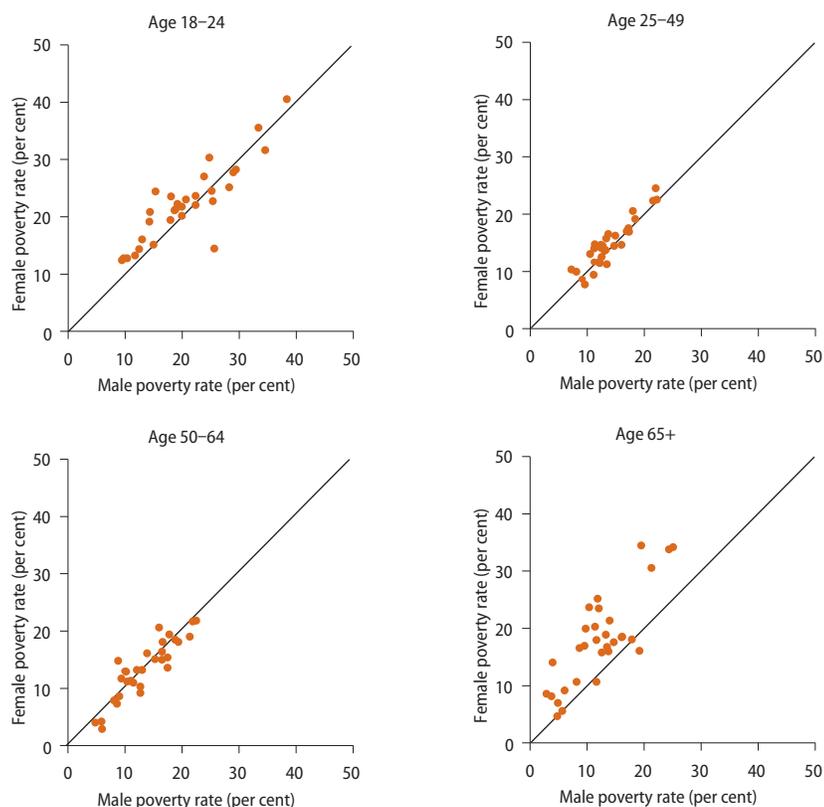
Age 18–24

Age 25–49

Age 50–64

Age 65+

Source: EUROSTAT, 2014a. Income and Living Conditions database online (accessed May 2014).
Note: Data presented for 31 countries. A relative poverty line of 60 per cent of the national median equivalized income is used in each of the countries (equivalized income is household income adjusted for differences in age and sex composition of households).

Figure 8.2
Poverty rate by sex of household members in two age groups, Latin America and the Caribbean, 2006–2012 (*latest available*)

Age 25–34

Age 65+
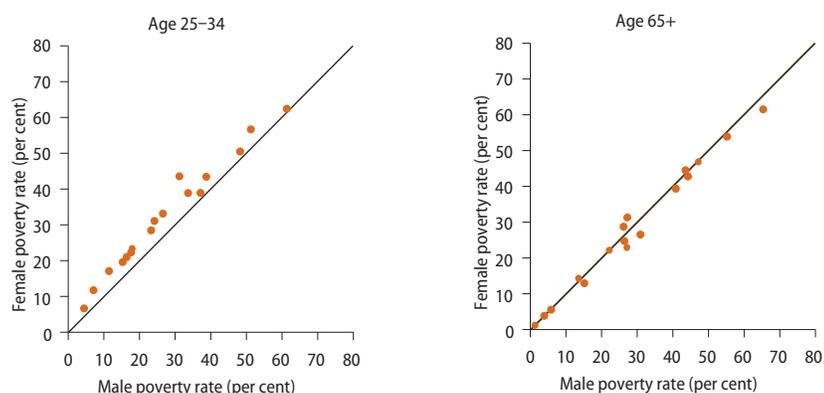
Source: Economic Commission for Latin America and the Caribbean (ECLAC), CEPALSTAT, 2014. Estadisticas e indicadores sociales (accessed July 2014).
Note: Data based on national poverty lines. Data presented for 17 countries.

Differences in poverty rates between women and men in certain age groups during adulthood are also noted in some developing countries with available data. The pattern across age groups is different than in developed regions. In Latin America and the Caribbean, for example, the largest differences between female and male poverty rates are found among young adults aged 25 to 34,[10] consistent with the higher proportion of households of lone mothers with children in this region compared to others.[11] As age increases, sex differences in poverty rates fade away. At age 65 and older, female and male poverty rates are similar in most countries in this region (figure 8.2). Two factors may explain the relatively small or non-existent sex differences in poverty rates among older persons in Latin America and the Caribbean: a smaller proportion of older women living in one-person households[12] and the relative good coverage of older persons by social protection systems in the region, including through public pension schemes and health care.[13]

The poverty of working-age women and men

Working-age women (20 to 54) are more likely than working-age men to live in poor households when they have children and no partners

Sex disparities in poverty rates for working-age adults aged 20 to 54 are closely linked to marital and parenthood status, as illustrated in figure 8.3. Partnered women and men in this age group experience similar poverty rates, as shown by data for 30 developed and developing countries. The case of persons with no partner and no children is mixed; in some countries, female poverty rates for this group are higher, while in others, male poverty rates are higher. However, for the limited number of countries with comparable data for non-partnered persons with children,[14] lone mothers with children tend to have higher poverty rates than lone fathers with children.

In fact, one of the contributing factors to increasing poverty for working-age women in some countries is the growth in the proportion

10   ECLAC, 2014.
11   United Nations, 2014a.
12   See Chapter 1 on Population and families.
13   See for example James and others, 2008; Arza, 2012; United Nations, 2013; UN Women, 2015.
14   Data available for 11 countries only. In the other 19 countries included in the comparison, the number of lone fathers living with children is too small to allow for the calculation of reliable poverty rates.

of non-partnered women with children.[15] The trend of increasing proportions of lone mothers with children among working-age women has been observed in many countries, and is linked to a significant increase in divorces and childbearing outside of marriage (see Chapter 1 on Population and families). However, these marked changes have not been met with corresponding significant changes in women's labour force participation and social protection programmes. In all countries, women's labour force participation rates and wages continue to be considerably lower than those of men, with little progress being observed in many but not all regions (see Chapter 4 on Work). On the other hand, social protection programmes do not fully account for the gendered division of paid and unpaid work and are yet to adapt to the increasing incidence of single parenthood.[16] Some of their components, including maternal benefits, child benefits, tax relief and unemployment benefits, are often linked to participation in employment, while limited access to social services, including care services among others, restrict women's employment opportunities.[17]

Women's economic vulnerability in one-parent families has implications for child poverty and well-being. Poverty during childhood has long-term consequences, including for the life-long process of building human capital, leading a productive life, and creating an economically secure retirement.[18] Child poverty in one-parent families is becoming more problematic with the increase in the share of children in such families among all children in many countries.[19] As noted in Chapter 1 on Population and families, three quarters of one-parent families are lone mothers with children and, as noted above, in most countries with data available, families of lone-mothers with children are more likely to be poor than families of lone-fathers with children.[20] The difference in child poverty rates between children living in lone-mother families and those living in two-parent families is striking (figure 8.4), particularly in developed countries. In 17 out of 27 developed countries with available data, poverty rates are more than three times higher for children in lone-mother families than in two-

parent families. Large differences are observed in some developing countries as well, although the small number of countries with data availability restricts the possibility of generalizing the results. The much higher child poverty rates in lone-mother households are linked to the smaller number of income earners in the household, as well as the relatively lower individual income for women than men.[21] In addition, the monetary cost of raising children is higher because child care services have to be purchased when the one and only adult in the household has to be involved in paid work in order to provide an income. This is particularly relevant in countries where public policies do not provide for child care services free or at low cost.

Figure 8.3

Poverty rate for women and men aged 20 to 54 by partner status and presence of children in the household, 2004
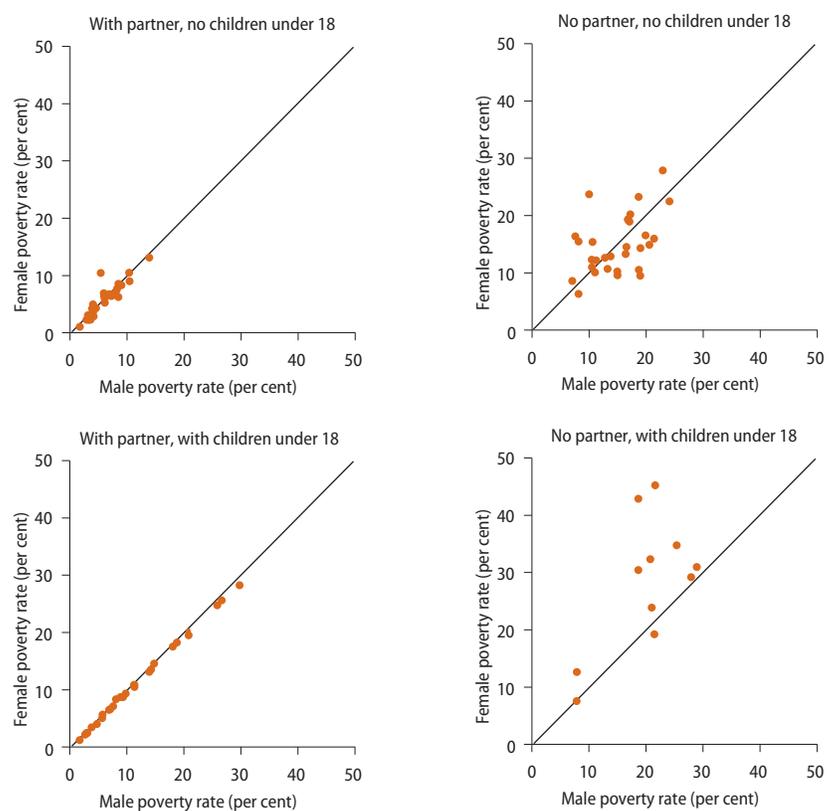
Source: Luxembourg Income Study, 2014. Employment key figures dataset (accessed May 2014).

Note: Data based on 30 countries (23 developed countries and 7 developing countries) in all panels, with the exception of the fourth panel on non-partnered women and men with children under age 18, where data are available for 11 countries (6 developed countries and 5 developing countries). A smaller number of countries are presented in the fourth panel, as the poverty rate could not be calculated for some surveys where the number of cases of men with no partners and children under 18 was small. In some surveys, information on partners was available only for the household head or reference person. Children may refer to children living in the household and not only to a woman's or man's own children.

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15 See, for example, Kodras and Jones, 1991.
16 UN Women, 2015.
17 *Ibid.*
18 Börsch-Supan and others (eds.), 2011.
19 United Nations, 2014a.
20 Luxembourg Income Study, 2014.

21 OECD, 2014.

Box 8.2
Measuring multidimensional poverty from a gender perspective

The notion that poverty is multidimensional is widely accepted at the global level. The Copenhagen Programme of Action of the World Summit for Social Development[a] and the Beijing Platform for Action[b] recognized that "poverty has various manifestations, including lack of income and productive resources sufficient to ensure a sustainable livelihood; hunger and malnutrition; ill health; limited or lack of access to education and other basic services; increasing morbidity and mortality from illness; homelessness and inadequate housing; unsafe environment; and social discrimination and exclusion. It is also characterized by a lack of participation in decision-making and in civil, social and cultural life."

There is a large consensus on the multidimensionality of poverty, but not necessarily on how to measure it.[c] On the one hand, a "dash-board approach" is frequently used. Through this methodology, each dimension of poverty has a distinct measure that can be used to guide policymaking in respective areas. A widely accepted example of this approach is the Millennium Development Goals (MDGs), whereby key dimensions of development and poverty are monitored through distinct indicators. To some extent, various chapters of this report have also clearly presented dimensions of well-being in which women are more often deprived than men.

On the other hand, there is a certain appeal to using one single "measure" that can summarize the overall level of poverty and assess trends over time. Such a measure may be an indicator based on traditional monetary measures of poverty (such as those used in the past decades by the World Bank and most countries in the world); or aggregate or composite indicators such as the Multidimensional Poverty Index (MPI) recently developed by the Oxford Poverty and Human Development Initiative. However, as shown below, a gender perspective is yet to be integrated in either type of measure in order to obtain meaningful poverty counts for women and men.

Monetary poverty

Traditional monetary poverty, the most commonly used approach for measuring poverty so far, is based on the household-level measurement of consumption or income. It may be considered by some to be multidimensional, in the sense that consumption (and income) covers many components, such as food, clothing, housing and education that are all aggregated based on market prices.[d] The components or "dimensions" covered and the "weights" given to each dimension within the income- or consumption-based poverty measures are based on individual household choices in the patterns of consumption of goods and services and the money spent for, or prices associated with those goods and services consumed.

However, there are limitations in using monetary measures of poverty as measures of deprivation on multiple dimensions. As argued in a 2009 United Nations report, *Rethinking Poverty: Report of the World Situation 2010*, patterns of consumption should not be treated as mere consumer preferences. Deprivations relating to key dimensions such as education and health, for example, may not be the result of choice, but of budget constraints or lack of supply of education and health services at affordable prices. Furthermore, some of the information on prices as weights may be inadequate or missing; as a result, important dimensions may be underrepresented in the income or consumption aggregate. This is the case when some social services are provided "free" to households—such as education or health services—and are therefore missed in the measurement of poverty. Certain important aspects of well-being or its opposite may have no corresponding "sensible estimates of relative prices."[e] This is the case, for example, of political participation, empowerment and the experience of violence. These dimensions of deprivation are not gender neutral; as shown throughout this report, women tend to experience deprivations on all these "under-measured" dimensions more often than men.

Last, but not least, one important caveat of the monetary approach is the lack of information on the distribution of expenditures and consumption at the individual level. As mentioned in the beginning of the chapter, this is a key element in a gender perspective on poverty. When poverty is measured at the household level, additional information at the individual level—including on dimensions of deprivations most relevant from a gender and poverty perspective, as illustrated above—is required to obtain meaningful poverty counts that take into account intra-household inequality. Methods for determining the dimensions of deprivation, how to measure deprivation at the individual level, and how to integrate the information obtained with the household-level information on the monetary dimension are yet to be developed.

a United Nations, 1995b, Annex II, para 19.
b United Nations, 1995a, para 47.
c Ravallion, 2011; Lustig, 2011; Ferreira and Lugo, 2012.
d Ravallion, 2011.
e Ferreira and Lugo, 2012.

Box 8.2 (*continued***)**

Multidimensional indices of poverty

Recent years have witnessed a growing interest in multidimensional indices of poverty. The most well-known is the Multidimensional Poverty Index (MPI) developed by the Oxford Poverty and Human Development Initiative for the *2010 Human Development Report*.[f] It is based on the multidimensional poverty measurement framework proposed by Alkire and Foster, which identifies the poor as persons simultaneously experiencing multiple deprivations on a set of dimensions.[g] The MPI is based on 10 indicators that are used to identify deprivations on three dimensions: health, education and living standards.

Assessing poverty based on multidimensional indices is challenging at best. A key limitation of the MPI is that it requires the use of relative weights for each dimension, which are chosen somewhat arbitrarily by the analyst. The choice of dimensions, indicators for the dimensions, weights and cut-offs may also vary among countries, making the comparisons difficult at the international level.

Because the poor is defined as a person *simultaneously* experiencing multiple deprivations, all data used in the assessment have to come from the same source (sample survey or census). While this is theoretically sound, in practice, it may limit the options of dimensions and indicators to be used. For instance, data on some of the dimensions of deprivation, important from a gender and poverty perspective, may not be routinely collected in household surveys used to measure the MPI. This type of constraint may explain why, in the MPI, indicators on living standards are limited to aspects of housing conditions, household assets and consumer durables, without considerations of current levels of income or consumption. Other "missing" dimensions of poverty data that appear important to deprived people but are overlooked in large-scale surveys may refer to quality of work, empowerment, physical safety, social connectedness and psychological well-being, as identified by the proponents of MPI.[h]

From a gender perspective, better indicators and, in particular, individual-level indicators of key dimensions of capability are required. However, most of the more than 20 countries[i] that have so far implemented an MPI approach in their latest poverty assessments use only household-level data to identify deprivation. For example, in the MPI, a household and all members of that household are considered deprived on the health dimension if: (1) there is at least one household member who is malnourished, or (2) if one or more children in the household died in the past 12 months. These indicators mirror some well-established indicators used to monitor the health dimension of development and poverty at national and subnational levels, such as the proportion of children underweight and the child mortality rate. However, their translation at the level of the household or the individual does not work, particularly from a gender perspective. An indicator such as "a child has died in the household in the last 12 months" does not say anything about the differences in health status between women and men and between boys and girls.

Different approaches and definitions of poverty can reveal not only different levels of poverty and different profiles of the poor (which has significant policy implications), but also different gender gaps in poverty. For example, in South Africa, an analysis of the 2008–2009 Living Conditions Survey showed larger gender disparities in poverty in the monetary approach than in the multidimensional approach.[j] Use of different dimensions, indicators and weights within the MPI approach may also lead to different profiles of the poor and gender gap in poverty. Therefore a thorough testing of all of these components, from a gender perspective, is needed.

f   United Nations Development Programme (UNDP), 2010.

g   Alkire and Foster, 2011.

h   For more details see Oxford Poverty and Human Development Initiative, Missing Dimensions of Poverty. http://www.ophi.org.uk/research/missing-dimensions/ (accessed May 2014).

i   Mexico's country official poverty measure is one of the exceptions. There, deprivations on three key social dimensions used to identify deprivation—education, health and social security—are identified based on individual-level data (CONEVAL, 2010).

j   Statistics South Africa and the United Nations Children's Fund (UNICEF), 2013.

Figure 8.4
Child poverty rates by type of family arrangement, 2005–2013 (*latest available*)
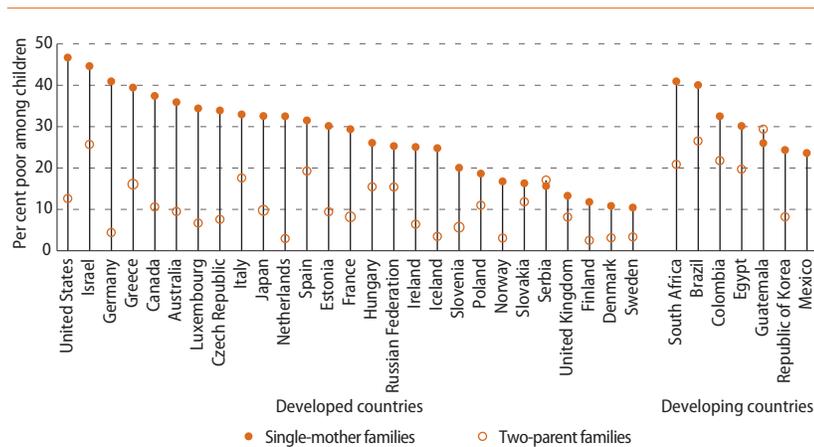
Source: Luxembourg Income Study, 2015. Inequality and Poverty Key figures dataset (accessed March 2015).

Working-age men have higher poverty rates than working-age women when unemployed and, in selected countries, when living in one-person households

Higher poverty rates for working-age women than men are associated with single motherhood and low income from labour or social benefits. By comparison, in the European context, the higher poverty rates for men are associated with unemployment. Unemployed men are more likely to be poor than unemployed women (figure 8.5) because they still play the role of family breadwinner and are often the primary or only income earner in the family. Women, on the other hand, are often secondary earners in their household. Being unemployed may not place women's households below the poverty line when spouses, who are the main income providers, continue to support their families.

Figure 8.5
Poverty rates by sex for unemployed persons aged 18 to 64 years, European countries, 2012
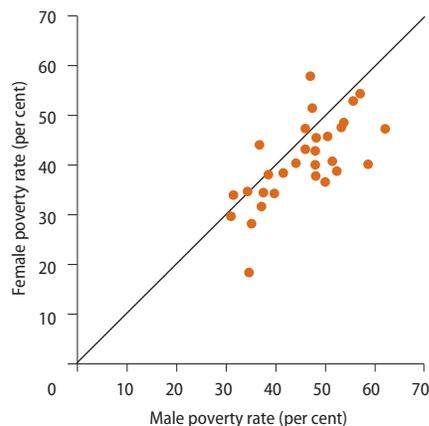
Source: EUROSTAT, 2014a. Income and Living Conditions database online (accessed May 2014).

Note: Data presented for 31 European countries. Unemployed refers to the most frequent work status in the previous year.

In some European countries, working-age men also have higher poverty rates than women when living in one-person households. Although women tend to have lower income than men, living in one-person households is not necessarily associated with higher poverty rates for women below age 65.[22] For the 18 to 64 age group, poverty rates for male one-person households are higher than for female one-person households in about a third of European countries, including six countries where the disparity is more than 10 percentage points. The number of countries where working-age women living in one-person households have higher poverty rates than men is the same; however, the gender gap is much smaller.

Public income transfers have a key role in reducing poverty and poverty disparities by gender during working years, as well as the poverty of children in lone-mother families.[23] However, systematic data on the levels of the components of benefits, including on child and family allowances, tax relief, and unemployment benefits and the analysis of how each component may affect the poverty of women and men, are generally missing.

The poverty of older women and men

Older women are more likely to be poor than older men, particularly when living in one-person households

At older ages, women's income and poverty status are highly dependent on their work history, the number of children they had, their marital status and the pensions system in their country. Low hours of paid work during working ages are associated with more time spent in poverty at older ages.[24] Women are also less likely than men to have a retirement plan based on their own contribution, and when they do, they receive significantly smaller pensions.[25] In other words, many women face a double penalty. Compared to men, they have lower or no personal earnings during the working ages (due to their reproductive roles and inequality in the sharing of the domestic work burden), which translate into lower or no income after retirement and during older

22　EUROSTAT, Income and Living Conditions database online (2014a).
23　See for example Gornick and Jantti, 2010.
24　Vartanian and McNamara, 2002.
25　See for example Arza, 2012; ILO, 2014; UN Women, 2015.

ages. Nevertheless, in some countries, modern pension systems have recognized the differences in the patterns of women's and men's paid and unpaid work by accounting for periods of child-care in the calculation of state pensions.[26] For example, in Latin American countries, pension systems reforms after 2005 included measures to improve gender equality,[27] some of which take into account differences in life expectancy at the age of retirement between women and men; provisions on survivorship of spouses; non-contributory benefits; subsidized bonuses to mothers for every child born or adopted; and economic compensation in the case of divorce or annulment of marriage, including transference of retirement funds.

Poverty rates among older persons (age 65+) are higher for women than for men (figure 8.6) in most European countries. On average, 16 per cent of older women and 12 per cent of older men were poor in that region in 2012. Living in one-person households, in particular, increases the risk of poverty for both older women and men, and in two thirds of countries it is more so for women than for men. Furthermore, in a third of countries with data available the gender gap is higher in one-person households compared to all households, reflecting women's higher vulnerability when living by themselves relative to their vulnerability when living with another person. The average poverty rate for older persons living in one-person households in European countries in 2012 was 23 per cent for women and 17 per cent for men.

The higher poverty rates of older women in developed countries compared to men, combined with the higher share of women among the overall older population, result in a high share of women among the older poor (figure 8.7). For instance, in European countries, the average share of women among the older poor is 64 per cent, higher than their share in the total older population (56 per cent of the poor and non-poor combined). This is not the case for younger age groups. The share of women among the poor under age 65 is similar to the share of women among the overall population under age 65 (figure 8.7). Also, when all ages are taken into account, women represent half or slightly more than half of the poor population. In European countries, women represent 53 per

cent of all poor people and 54 per cent of the poor over age 18.[28] In developing regions, women and girls represent half of all poor people living on less than $1.25 a day.[29] By another wealth measure, a slight overrepresentation of women aged 15 to 49 in the poorest 20 per cent of households is noted in most sub-Saharan African countries with available data.[30]

Figure 8.6

Poverty rate for older persons (*age 65 and over*) **by sex, in all households and in one-person households, European countries, 2012**
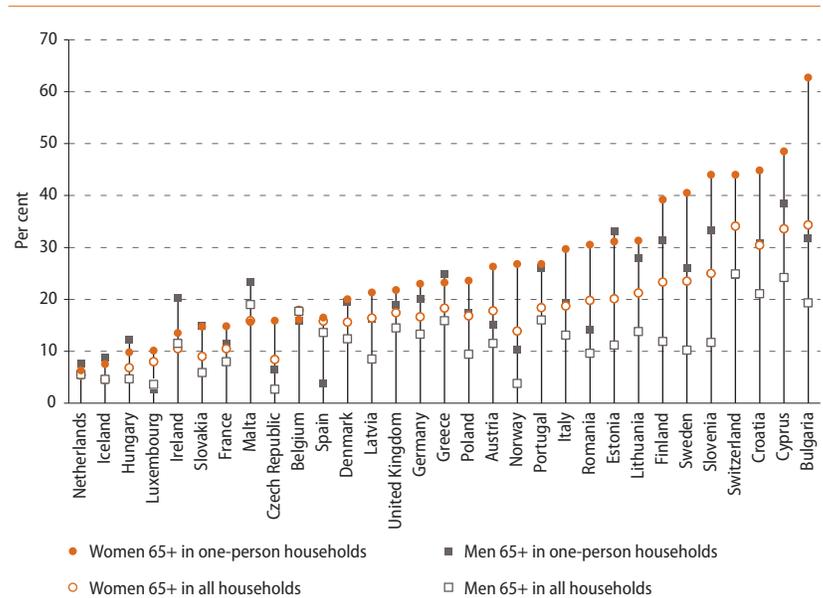
Source: EUROSTAT, 2014a. Income and Living Conditions database online (accessed April 2014).

26 Vlachantoni, 2012.

27 James and others, 2008.

28 Data compiled by the United Nations Statistics Division for this report. Data are based on poverty lines of 60 per cent of equivalized median income in European countries and national poverty lines in the rest of countries.

29 World Bank, 2013.

30 UN Women, 2015. The results are based on a household-level wealth asset index and data from Demographic and Health Surveys and Multiple Indicator Cluster Surveys. While this analysis fills in some of the existing data gaps and shows a link between gender and poverty, it is, however, a scholarly solution to a statistical capacity problem in developing countries. More efforts at international and national levels are needed to promote a better utilization, from a gender perspective, of existing monetary poverty data and the development of poverty measures that adequately capture the gender gap (see box 8.1 and box 8.2). Wealth indices have limitations when utilized as measures of poverty, particularly when envisioned as tools for monitoring changes over time. From a gender perspective, the measurement of wealth indeces is subject to the challenges inherent in the use of household-level data. In addition, more clarity is needed with regard to what types of poor are identified based on the method and what are the direct implications for policymaking. Such indices also discriminate poorly at the lower end of the wealth scale. Hartgen and other, 2013; Booysen and others, 2008.

Figure 8.7

Share of women in the population and in the total poor among persons under and over 65 years old, Europe, 2012
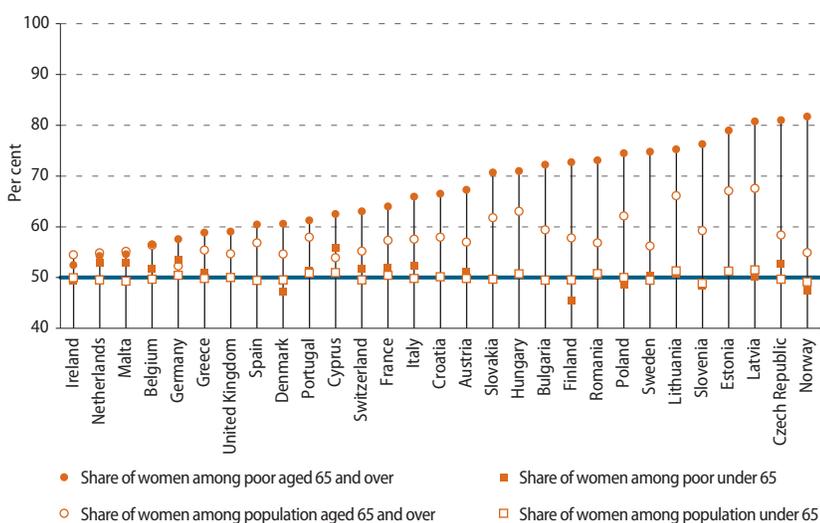
Source: EUROSTAT, 2014a. Income and Living Conditions database online (accessed April 2014).

In summary, women are more likely to be poor than men during the working age when they have dependent children and no partners to contribute to the household income or when their own income is non-existent or too low to support the entire family. The differences between working-age women and men disappear, or are inconsistent across countries, when there are no dependent children, including when living alone in one-person households. At older ages, women in one-person households in developed countries are consistently more likely to be poor than men. The data presented in this section are limited to a relatively small number of countries, with limited coverage of developing regions. However, they confirm that policy measures oriented towards reducing the gender gap in poverty need to consider, among others, providing child care services that would

free up the time of mothers, facilitate their integration into the labour force during childrearing years, and reduce their chances of becoming poor during the older ages. Social protection measures designed to account for the specific challenges and vulnerabilities of women during different stages of life, particularly their reproductive roles and higher involvement in care work, are also important.

The higher risk of poverty for lone mothers and older women living alone is also illustrated by data analysed at the household level, by comparing the poverty rates of certain types of female-headed households with those of male-headed households. It has to be noted that the analysis of poverty data disaggregated by types of households and the sex of the household head is more often found in developing countries. By contrast, in developed countries, the gender dimension of monetary poverty is more often captured through data disaggregated by the characteristics of all household members, which allows the comparison of poverty rates across population sub-groups, as done in the previous part of this chapter. The results of poverty analysis from a gender perspective based on the two approaches (all household members versus female/male-headed household) are consistent, nevertheless. For instance, in Latin America, households headed by women without a spouse/partner are more likely to be poor than households headed by men in similar living arrangements (figure 8.8). Also, in some of the countries in the region, households with women living alone have higher poverty rates than households with men living alone. The higher level of poverty for all female-headed households by comparison to male-headed households cannot be generalized, however, as shown in the first panel of figure 8.8 and explained in box 8.3.

Figure 8.8

Poverty rate by type of household and sex of the household head, Latin America, 2006–2012 (*latest available*)
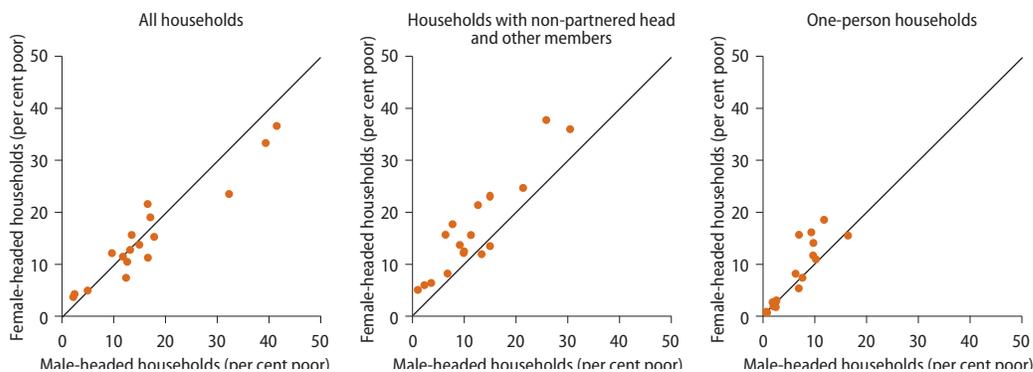
Source: CEDLAS and the World Bank, 2014. Socio-Economic Database for Latin America and the Caribbean (SEDLAC) (accessed July 2014).

Note: Data presented for 17 countries. Poverty rates are based on the $2.5 a day poverty line.

Box 8.3
The poverty of female- and male-headed households

The gender dimension of poverty is often captured in developing countries through an analysis of female- and male-headed households. However, an analysis based on the overall simple distinction of those two categories, without further data disaggregation by specific types of households, yields puzzling results. Higher poverty rates may be associated with female- or male-headed households depending on the country-specific context, as shown by data compiled for the purpose of this report and previous comparative assessments.[a] This is illustrated, for example, by the case of Latin American countries in figure 8.8. Furthermore, in sub-Saharan Africa, it is more often the case that male-headed households have higher poverty rates than female-headed households among the 23 countries with poverty data available. For example, male-headed households have higher poverty rates than female-headed households by more than 5 percentage points in Cameroon, Niger and Togo, and by more than 10 percentage points in Benin, Gambia, Ghana and Senegal. Nevertheless, in some countries, female-headed households have considerably higher poverty rates than male-headed households, varying from 6 percentage points in Namibia to 18 percentage points in South Africa.[b]

The difficulty in generalizing about poverty disparities between female- and male-headed households is related not only to the contextual differences in women's and men's status but also the specific combination of various types of households—by size, composition and the definition of headship used—that may be included under these labels. Female-headed households cover a broad range of situations, from one-person households, households of lone mothers with children and households of couples with or without children where the woman rather than the man is reported as the household head. Although the view is held that households are headed by women only when men are not around to provide economic support for families, that is not necessarily the case. Male-headed households are also diverse. Many households identified as male-headed are households in which the male head has a female partner (with or without children). However, other male-headed households may include one-person households or households of lone fathers with children.

Furthermore, the criteria used in identifying the head of the household for the purposes of statistical data collection and analysis vary across countries and are not always clear.[c] This has implications for the assessment of poverty. It has been shown that the use of different criteria in defining household headship leads to the identification of different sets of households that overlap only by a small margin, with different poverty rates and profiles of the poor.[d]

Therefore a simple analysis of poverty data by comparing female- with male-headed households has limited value in capturing the gender dimension of poverty. Instead, a detailed disaggregation of poverty data by household size and composition is needed. While these detailed data are generally missing in sub-Saharan Africa, a few cases illustrate the point. For example, in Benin, overall poverty rates are higher in households headed by males than those headed by females. A similar result is also observed for married heads of household. For widowed and divorced/separated heads, on the other hand, poverty is higher among female-headed households.[e] In Madagascar, female-headed households have overall poverty levels similar to those of male-headed households. However, this conceals the fact that smaller households have consistently higher poverty rates when they are female-headed households rather than male-headed households, while larger households have similar poverty rates whether headed by women or men.[f] In the Gambia and Niger, the lower poverty rate for female-headed households is attributed to the smaller household size and the receipt of cash remittances.[g] On the other hand, in South Africa, where poverty rates are higher for female-headed households, these households are larger, less likely to include single persons and nuclear families, and more likely to be "skipped generations" households or extended households with three or more generations.[h]

a Data shown in Statistical Annex available at http://unstats.un.org/unsd/gender/worldswomen.html. Also, see United Nations, 2010, and Lampietti and Stalker, 2000.

b Data compiled by the United Nations Statistics Division from national statistical offices (as at April 2014). Data shown in Statistical Annex available at http://unstats.un.org/unsd/gender/worldswomen.html.

c For example, an analysis of census metadata in 131 countries conducting a census in the 2010 round showed that the headship concept is largely used in developing countries (88 per cent of countries) but not in developed countries (29 per cent). The definition of the head also varies across countries: in half the countries with available metadata, the criteria used for the identification refer to income, authority and decision-making power, with some variations from one country to another. In the other half, the head is defined vaguely as self-declared or recognized as such by other family members.

d Fuwa, 2000.

e Republic of Benin, 2013.

f Republic of Madagascar, National Institute of Statistics, 2011.

g Gambia Bureau of Statistics, 2011; National Institute of Statistics of Niger and the World Bank, 2013.

h Statistics South Africa, 2014.

2.   Gender differences in poverty over time

Important demographic and social changes have taken place in the past two decades that may have influenced trends in poverty for women and men. As shown in the previous section, lone mothers with children and older women living alone have higher poverty rates compared to men with similar characteristics. In some countries, the diversification of families has played a role in making the economic vulnerability of women more visible, in the sense that the contribution of lone mothers and older women living alone to overall poverty has become significant enough to increase the share of women among the total poor and alter the sex differences in poverty rates among certain groups of the working-age population and among the older age population. If the *feminization of poverty* is understood as the current higher share of women than men among the poor and/or the increase in the share of women among the poor over time, then the feminization of poverty, driven by changes in living arrangements for the adult population and the sex ratio at older ages, has taken place in the past decades in developed countries.

The *feminization of poverty* may also be understood as an increase of women's poverty rates relative to men's, as presented in this report. While demographic changes may have contributed to a relative increase in the gap between the overall adult female and male poverty rates, to the disadvantage of women, recent improvements in education, labour force participation and employment conditions, on the other hand, may have had the opposite effect. Changes in the poverty rates of women in selected age groups or types of households headed by non-partnered women, relative to men, is the focus of the analysis presented is this section.

Gender gap in poverty, to the disadvantage of women, is narrowing slightly in some countries while persisting in others

Available trend data show that some countries recorded a decline in the gender gap in poverty rates by various measures, while in others the gender gap remained the same or fluctuated slightly over the years. Available trend data for countries in Latin America and the Caribbean[31]

show that differences between the overall female and male poverty rates (measured as a proportion of the female and male populations living below the $2.5 a day poverty line) remained at similarly low levels[32] in all countries in the region.[33] When looking at specific types of households, differences in poverty rates between female and male one-person households declined overall, although in some countries they fluctuated between survey years. This is illustrated in figure 8.9 by a selection of countries with trends for a longer period of time. Among households with more than two members, the difference in poverty rates between non-partnered female- and non-partnered male-headed households fluctuated over time or remained at the same level for most countries. Nevertheless, the overall trend of decline in poverty rates and the related gender gap was observed in some countries such as Brazil and Chile.

Recent trends (between 2006 and 2012) observed in 18 European countries show that women have had, on average, higher poverty rates than men, by a small margin for the working-age population and by a larger margin in the old age population (figure 8.10). A slight decline in the gender gap was observed among the older population, from 5 percentage points in 2006 to 3 percentage points in 2012. The poverty rate of older women declined slightly faster than men's up to 2009, and afterwards the gender gap remained stable, while the poverty rate increased for both women and men. For poverty rates in the working-age population, sex differences remained rather constant over time and at a low level.

Data on poverty covering longer periods of time since 1995 are available for some other developed countries, as illustrated by the cases of the United States of America and Canada. Data for the United States show a high risk of poverty for one-parent households; increasing levels of poverty for male and female one-parent households relative to other types of households since 2000; and no progress in reducing the gap between the poverty of female one-parent households and male one-parent households (figure 8.11).

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erty were included in the analysis, based on metadata information from CEDLAS and the World Bank, 2012.

32 Less than 2 percentage points.

33 CEDLAS and the World Bank, Socio-Economic Database for Latin America and the Caribbean (SEDLAC) (July 2014).

31 Analysis based on CEDLAS and the World Bank, July 2014. Only countries with more than five data points over time and similar methodology in measuring pov-

Figure 8.9

Poverty rates by selected types of households, Latin America and the Caribbean, 1995–2012

Legend:
- Non-partnered female householder with others
- Non-partnered male householder with others
- Female one-person household
- Male one-person household

Figure 8.10
Poverty rates by sex and age group of household members, 18 European countries, 2006 to 2012

Women ▬
Men ▬

All age groups

Age 18–64

Age 65+

Source: EUROSTAT, 2014a. Income and Living Conditions database online (accessed July 2014).

Note: Poverty rates are anchored at a fixed moment in time (2005). Average rates based on data for 18 European countries.

Figure 8.11
Poverty rates by type of household, USA, 1995 to 2012

Female one-parent households with children under 18 ▬
Male one-parent households with children under 18 ▬
Married-couple families with children under 18 ▬
Female one-person households ▬ ▬
Male one-person households ▬ ▬
Married-couple families without children ▬ ▬
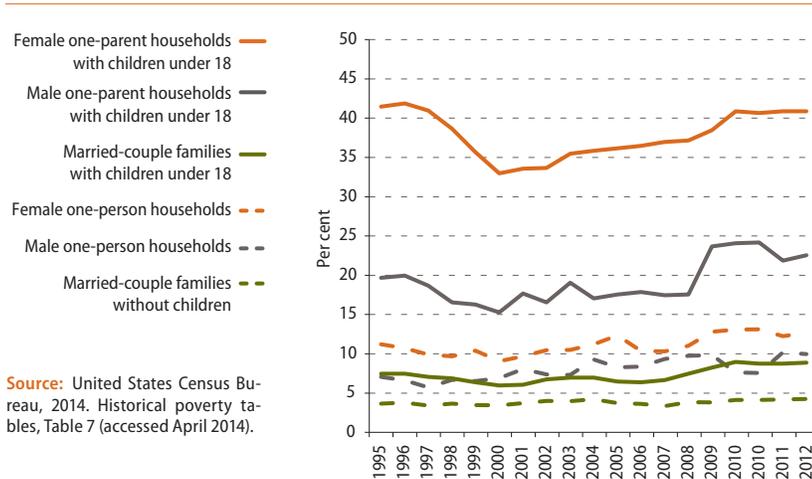
Source: United States Census Bureau, 2014. Historical poverty tables, Table 7 (accessed April 2014).

Figure 8.12
Poverty rate in selected types of households, Canada, 1995 to 2011

Female one-parent families ▬
Male one-parent families ▬
Two-parent families with children ▬
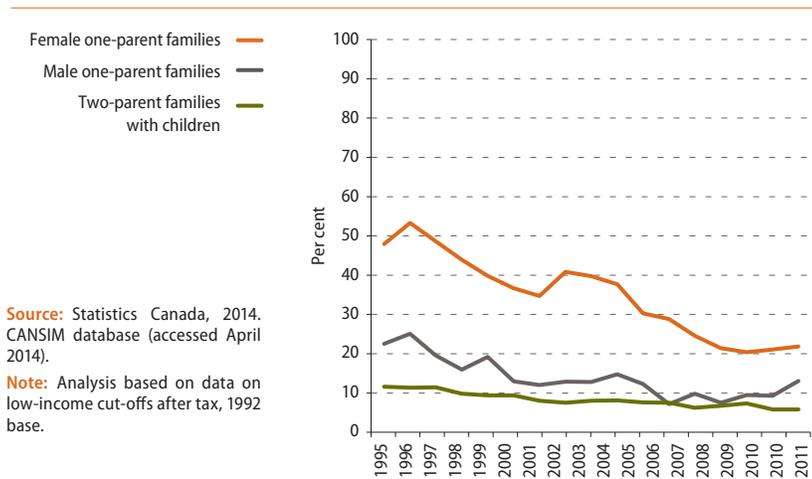
Source: Statistics Canada, 2014. CANSIM database (accessed April 2014).

Note: Analysis based on data on low-income cut-offs after tax, 1992 base.

Data for Canada on the other hand, show that poverty rates for women are still higher than those of men but that the gap is diminishing, including among the older age population.[34] The analysis of the poverty level in selected types of households also indicates a decline in the gender gap among one-parent families (figure 8.12).

B.   Economic autonomy of women

Women's well-being relative to men's, including in certain types of living arrangements such as one-parent families and one-person households of older persons, is one important link between gender and poverty. However, women in any kind of living arrangement should have the empowerment, including economic empowerment, to do what they want as active economic agents and to influence their own well-being and that of their families. This second part of the chapter looks at gender equality in terms of access to three types of economic resources: cash labour income, financial services and property.

34 Statistics Canada, 2014. Analysis based on data on low-income cut-offs after tax, 1992 base. Data shown in the Statistical Annex available at http://unstats.un.org/unsd/gender/worldswomen.html.

Box 8.4
Measuring food insecurity from a gender perspective[a]

Measurement and monitoring of food insecurity are crucial to the efforts of ending hunger and fulfilling the basic human right of access to sufficient, safe and nutritious food declared at the World Food Summit in Rome in 1996.[b] Yet, assessing food insecurity is a serious challenge. As expressed by members of the Committee on World Food Security's High Level Panel of Experts, "at the global level, there are no direct estimates of the number of food insecure people."[c] Aggregate, national-level estimates on undernourishment are indirect estimates based on macro data that "give no sense of the severity of hunger."[d] They also fail to show the distribution of food insecurity across populations, including by sex, requiring countries to rely on survey data. However, collecting data on food consumption and expenditure through large-scale national household surveys requires significant financial, human, and time resources, and the efforts necessary to implement and sustain such surveys are often prohibitive.[e]

Even when large-scale national household surveys are available to provide data on food consumption and expenditures, they are collected at the household level. From a gender perspective, this restricts the analysis to comparisons of female- and male-headed households, which may be inconclusive or limited to certain types of households. For instance, a Food and Agriculture Organization of the United Nations (FAO) analysis[f] of household-level dietary energy consumption in 21 countries showed that in some of those countries, female-headed households have a statistically significant lower per capita food consumption, while in other countries male-headed households show a lower food consumption. Nevertheless, further disaggregation of data shows that large female-headed households and single women consistently have lower food consumption than male-headed households with similar characteristics.[g]

Similar to monetary poverty, the analysis of food security based on household-level data on food consumption cannot reveal intra-household inequalities, or lead to adequate counts of women and men who are food insecure. Furthermore, data collection on food consumption at the individual level is at best a difficult enterprise that can result in considerable estimation errors. Thus, individual-level data on access to food, a key dimension of food security, remain currently unavailable.[h]

Voices of the Hungry (VoH), an initiative launched by FAO and its partners,[i] aims to fill the gap in global monitoring of access to food and the severity of food insecurity, including at the individual level, by using an experience-based food insecurity scale. The scale developed for this purpose—the Food Insecurity Experience Scale (FIES)—consists of a set of eight questions[j] on self-reported food-related behaviours and experiences associated with increasing difficulties in obtaining food due to resource constraints. The questions reflect a continuum of food insecurity from worrying about food to compromising on quality and variety and further to reducing quantities, skipping meals and experiencing hunger. Following pilot surveys in four sub-Saharan African countries in 2013, the FIES was included, starting in 2014, in the Gallup World Poll® conducted annually in over 150 countries.

Using the FIES at the individual level can capture disparities in food security between women and men, including those due to intra-household differences in resource allocation and feeding priorities. Preliminary results from 117 countries[k] show that women are more likely to be food insecure than men in 26 per cent of countries, and men in 12 per cent of countries. In the remaining countries, women are as likely as men to be food insecure. The association between food insecurity and gender is more prevalent in developing countries. The proportion of developing countries where women are more likely than men to be food insecure increases to 39 per cent, while for men, it remains at about the same level, at 13 per cent. However, at the completion of data collection exercises in the countries implementing the scale, further analysis is needed to confirm the validity of a global experience-based insecurity scale and ensure cross-country comparability of results, including from a gender perspective.

a A first draft of this box was prepared by the FAO Statistics Division.

b FAO, 1996.

c HLPE (High Level Panel of Experts on Food Security and Nutrition), 2012. Pages 21–22.

d *Ibid*.

e Jones and others, 2013; de Weerdt and others, 2014.

f Data and analysis prepared by FAO, 2014. Data shown in Statistical Annex available at http://unstats.un.org/unsd/gender/worldswomen.html.

g *Ibid*.

h By comparison, individual-level data on malnutrition of children and pregnant women, capturing the dimension of food utilization, are often available from demographic and health surveys.

i For more details on the project see FAO, Voices of the Hungry (http://www.fao.org/economic/ess/ess-fs/voices/en/) (accessed June 2015).

j The respondents are asked directly whether in the last 12 months there was a time when, because of lack of money or other resources they: (1) were worried that they would run out of food; (2) were unable to eat healthy and nutritious food; (3) ate only a few kinds of foods; (4) had to skip a meal; (5) ate less than they thought they should; (6) their household run out of food; (7) were hungry but did not eat; (8) went without eating for a whole day.

k FAO, 2015.

1. Access to income

Women's access to cash labour income is systematically low in developing regions

As shown in Chapter 4 on Work, women are less likely to be employed than men and, when they are employed, they are more likely to be in vulnerable jobs, such as contributing family workers. Compared to other jobs, these types of jobs are more often associated with irregular low income or no income at all, resulting in lower proportions of women having cash labour income. For instance, in sub-Saharan Africa, only 34 per cent of married women aged 15 to 49 were employed in the past 12 months and paid in cash, and an additional 12 per cent were paid in cash and in-kind; the corresponding proportions for married men were 57 and 18 per cent, respectively (figure 8.13). Across the 44 developing countries with available data, the proportion of married women who earned any cash labour income in the past 12 months varied greatly, from 8 per cent in Timor-Leste to 79 per cent in Ghana. For men, the proportion varied from 33 per cent in Timor-Leste to 97 per cent in the Maldives. The gender gap ranged from 7 percentage points in Ghana to 74 percentage points in Pakistan.[35]

Figure 8.13

Distribution of married women and men aged 15 to 49 by type of earnings from labour in the last 12 months, sub-Saharan Africa, 2005–2012 (*latest available*)
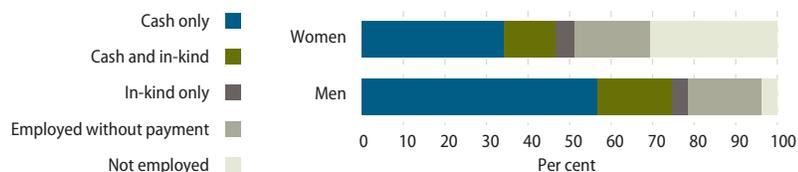
Legend:
- Cash only
- Cash and in-kind
- In-kind only
- Employed without payment
- Not employed

Women
Men

0 10 20 30 40 50 60 70 80 90 100
Per cent

Source: Calculated by United Nations Statistics Division based on data from ICF International, 2014. Demographic and Health Survey (DHS) Programme database (correspondence in June 2014).

Note: Unweighted averages based on data from 30 countries.

Access to cash labour income is most limited for rural women, but the gender gap is highest in urban areas

Women in rural areas are most disadvantaged in terms of access to cash labour income (figure 8.14). They lag behind men in all countries with data, and, in most countries, they have lower access to cash income than women in urban ar-

eas. On average, in rural areas in sub-Saharan Africa, 43 per cent of married women aged 15 to 49 and 68 per cent of men had any cash labour income in the past 12 months. The corresponding figures in urban areas were 56 per cent and 90 per cent, respectively. Still, the gender gap was higher in urban than in rural areas, with very few country exceptions, showing that women are not able to access the more extensive employment opportunities offered in cities. At the same time, it shows that cash income opportunities in rural areas remain limited for both women and men.

Data on women's lack of cash labour income, such as those provided by ICF International based on Demographic and Health Surveys (DHS), clearly illustrate the economic dependency of women on men, as a consequence of the gender division of labour in the domestic and market arenas (see Chapter 4 on Work). However, further statistical information is needed, including on the level of personal income from labour and other sources (such as government transfers) individually accessed. This would allow for a better understanding of women's economic vulnerability and of the co-shared responsibility of care work between women, men and the state.

A significant proportion of married women in developing regions have no say in how their cash earnings are spent

In developing countries, having a job and cash income does not necessarily translate into control over the economic resources acquired. On average 1 in 10 married women in developing countries with data are not consulted on how their own cash earnings are spent.[36] The proportion of married women in developing countries with no say in how their own cash earnings are spent ranges widely from 2 per cent in Cambodia, Colombia and Honduras to over 20 per cent in the Democratic Republic of the Congo, Liberia, Sierra Leone and Zambia and 42 per cent in Malawi. The proportion of women experiencing lack of control over their own income is higher in the poorest quintiles and lower in the wealthiest quintiles.[37]

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[35] ICF International, 2014. Data shown in the Statistical Annex, http://unstats.un.org/unsd/gender/worldswomen.html.

[36] Unweighted averages calculated by United Nations Statistics Division based on data from ICF International, Demographic and Health Survey (DHS) Programme database (2014) for 50 developing countries (latest available within the 2005–2012 time period).

[37] Data based on ICF International, 2014. Data shown in the Statistical Annex, http://unstats.un.org/unsd/gender/worldswomen.html.

Figure 8.14

Married women and men aged 15 to 49 who earned any cash labour income in the last 12 months, by urban and rural areas, 2005–2012
(*latest available*)
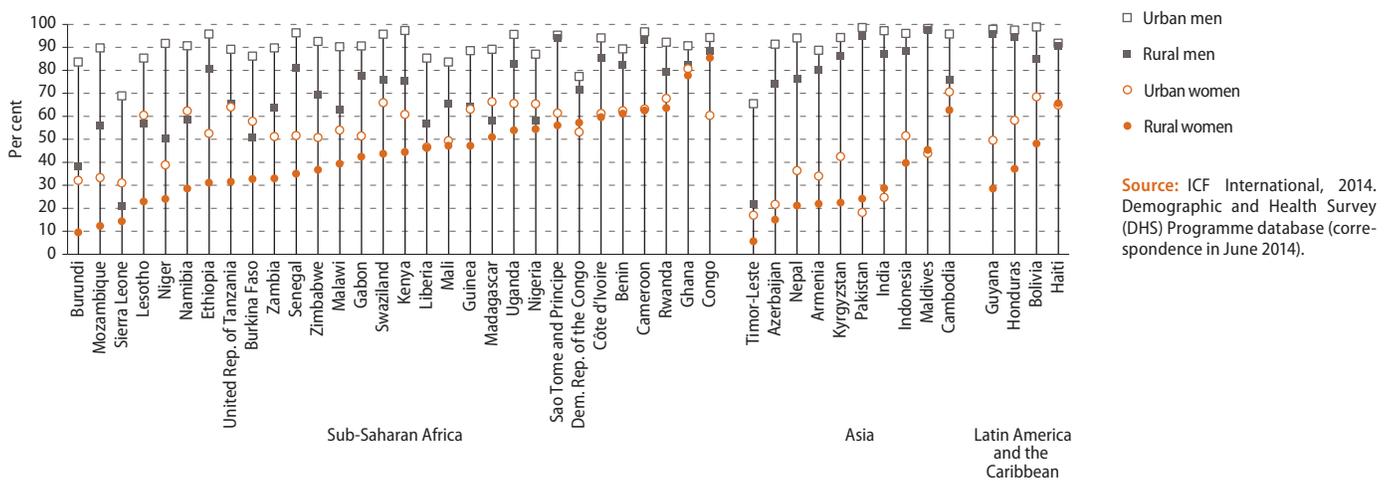
Source: ICF International, 2014. Demographic and Health Survey (DHS) Programme database (correspondence in June 2014).

Furthermore, although women do contribute to the welfare of their household, either through paid or unpaid work, they often lack decision-making power over the economic resources of the household. For instance, only 2 in 3 married women aged 15 to 49 participate in decision-making on major household purchases in developing countries.[38] This is often the case in sub-Saharan Africa and Asia (figure 8.15). In sub-Saharan Africa, for example, about half of married women only (54 per cent) have a say on major household purchases. The proportion of women with power of decision-making is lower in the poorest households, at 49 per cent, compared to 62 per cent in the wealthiest households.[39]

By comparison, in European countries, the decision-making model among couples is generally egalitarian with respect to important expenses for children, purchases of durable consumer goods, borrowing money and the use of savings. However, women are more often involved than men in decision-making related to daily shopping and to expenses related to children and children's needs.[40]

Figure 8.15

Proportion of married women aged 15 to 49 participating in household decision-making on major purchases, poorest and wealthiest quintiles, 2005–2012 (*latest available*)
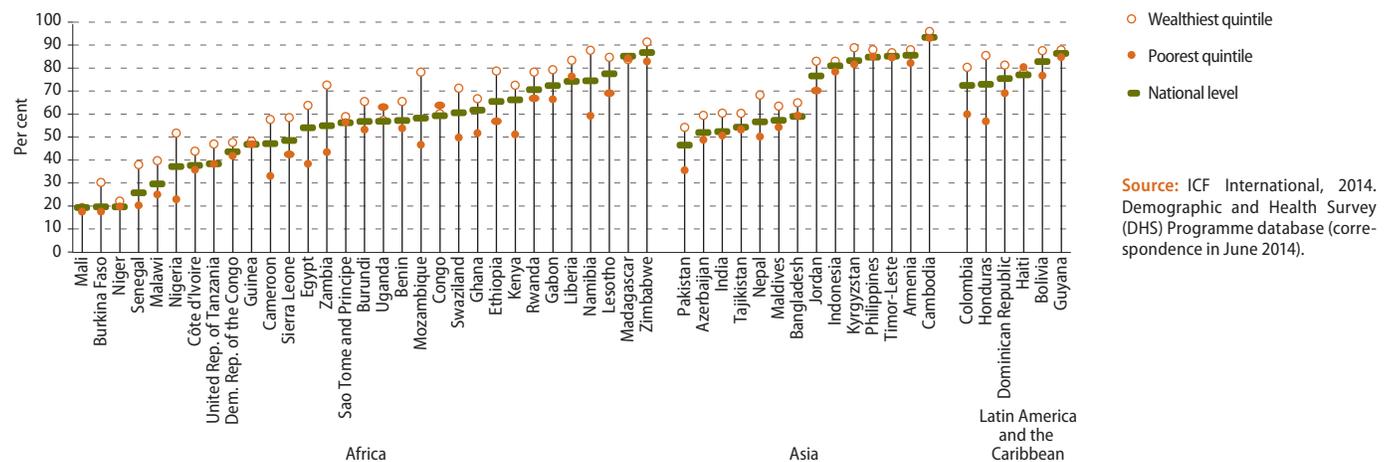
Source: ICF International, 2014. Demographic and Health Survey (DHS) Programme database (correspondence in June 2014).

38 Unweighted averages based on data on 51 countries from ICF International, 2014. Data shown in the Statistical Annex, http://unstats.un.org/unsd/gender/worldswomen.html.

39 Unweighted averages calculated by United Nations Statistics Division based on data from ICF International, 2014.

40 Eurostat, 2014b.

2.   Use of formal financial services

Women use formal financial services less often than men in all regions of the world

Women have less access to formal financial systems than men. Globally in 2011, 47 per cent of women had an individual or joint account at a formal financial institution (a bank, credit union, cooperative, post office or microfinance institution), compared to 55 per cent of men. In developing countries, 37 per cent of women and 46 per cent of men had a formal account.[41]

The proportion of women with an account at a formal financial institution was lower than the proportion of men in all regions of the world (figure 8.16). The gender gap was highest in the Middle East and North Africa and in South Asia (regions as defined by the World Bank). In South Asia, 25 per cent of women compared to 41 per cent of men had an account (a difference of 16 percentage points). In the Middle East and North Africa, 13 per cent of women and 23 per cent of men had an account (a difference of 10 percentage points). Among countries in those regions, the gender gap was as high as 57 percentage points in Saudi Arabia and 49 percentage points in Turkey. A large gender gap was observed in other countries as well, at 20 percentage points or higher in Lebanon, Morocco and Oman and 17 percentage points in India.

In developing regions, women are less likely to have a formal bank account than men across all income quintiles.[42] More in-depth research also shows that global and regional gender gaps in having an account remain statistically significant (except for East Asia and the Pacific) after controlling for education, age, income and country-level characteristics.[43]

The largest gender gaps are found in the use of a bank account for receiving wages and other business purposes

Globally, bank accounts held by individuals are most often used for receiving wages, government payments and other business purposes, and less often for sending or receiving remittances. The gender gap was most substantial in the use of such accounts for receiving wages and other business purposes (figure 8.17), consistent with the fact that women are less likely than men to be employed (see Chapter 4 on Work).

Among the most frequently self-reported reasons for not having a formal bank account were: lack of enough money to use one; banks or accounts are too expensive; and the fact that another family member already had one. Women were more likely than men to mention the last reason (26 per cent for women and 20 per cent for men globally). There was no difference between women and men in relation to the other reasons reported, such as banks being too far away, lack of necessary documentation, lack of trust in banks and religious reasons.[44]

Figure 8.16
Proportion of adults with an account at a formal financial institution, by sex, 2011
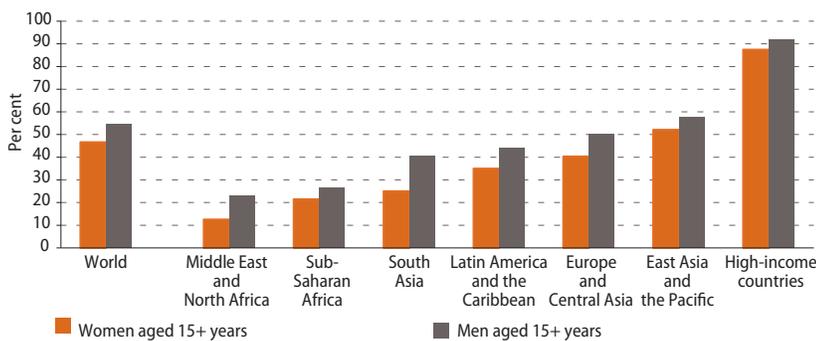
Source: World Bank, 2014. Global Financial Inclusion database (accessed March 2014).
Note: Weighted averages by World Bank regions, calculated by the World Bank. Regional and world aggregates omitted countries with samples that excluded more than 20 per cent of the population or used methodologies inconsistent with those used for other countries. Averages for the geographical regions shown (that is, all categories except "World" and "High-income countries") are based on data for developing countries only.

Figure 8.17
Use of own bank account, by purpose and by sex, world, 2011
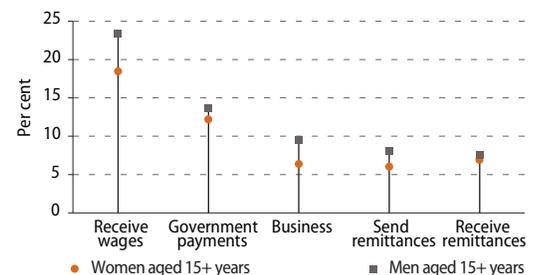
Source: World Bank, 2014. Global Financial Inclusion database (accessed March 2014).

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41   Demirguc-Kunt and Klapper, 2012.

42   *Ibid.*
43   *Ibid.*
44   *Ibid.*

A smaller but significant gender gap was also observed for the activities related to saving and borrowing from a formal financial institution in the past year. This was the case in high-income countries and developing countries in Latin America and the Caribbean, the Middle East and North Africa, South Asia and sub-Saharan Africa.[45] The proportion of women who saved at a formal financial institution was 21 per cent compared to 24 per cent for men worldwide. In developing economies, the proportion was 16 per cent compared to 19 per cent, respectively. Saving clubs (pooling the deposits of their members and disbursing the entire amount to a different member each week or at another interval) are common alternatives to saving at a formal financial institution in developing countries, especially in sub-Saharan Africa, and are used equally by both women and men.

Globally, the proportion of people who borrowed from a financial institution in the past year was 8 per cent for women and 10 per cent for men. The gender gap was more pronounced in high-income countries—12 per cent of women versus 16 per cent of men. In developing regions, the proportion borrowing was 7 per cent for women and 9 per cent for men. While it is often assumed that women use informal borrowing and saving more often than men, the data showed no significant difference between them.

3. Property rights and asset ownership and control

Women are disadvantaged with respect to inheritance and property rights

The overall legal rights of women remain unequal compared to the rights of men in many countries. As many as 90 per cent of the 143 economies reviewed by the World Banks's *Women, Business and the Law 2014* have at least one legal difference restricting women's economic opportunities and their ability to be economically independent.[46] That said, many restrictions have been removed over the past four decades. Research shows that international conventions such as the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and women's political representation at the national level played a role in closing legal gaps in women's economic rights, while conflict situations and weak rule of law perpetuated discrimination.[47] Countries in Latin America have made tremendous progress and have caught up with developed countries in terms of women's legal rights.[48]

Figure 8.18
Number of developing countries with equal legal rights for women and men on selected issues, 1995 to 2010
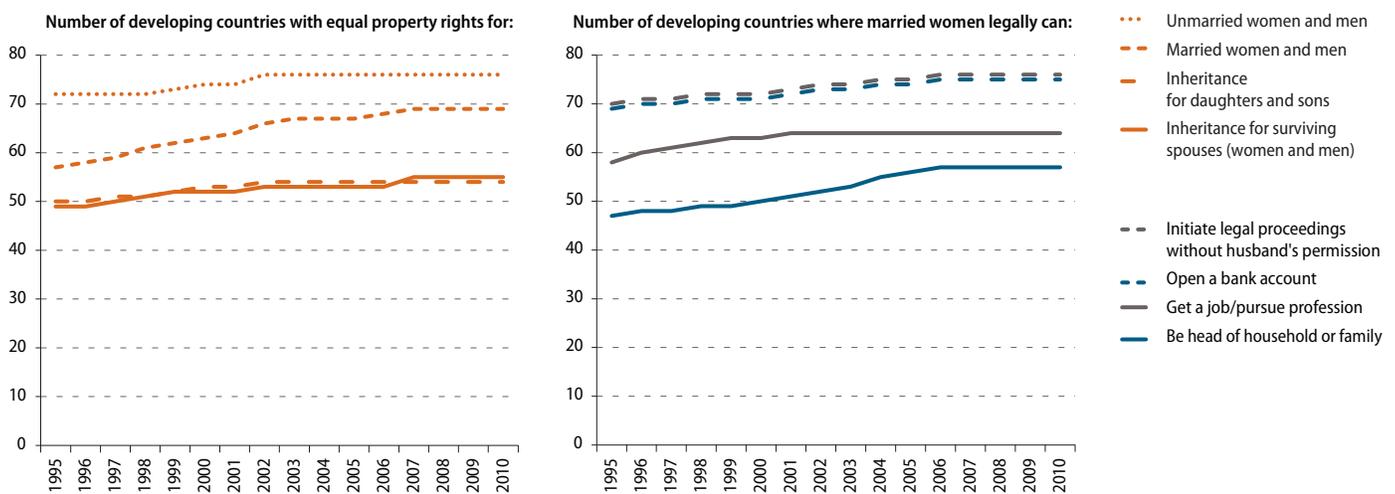
Source: World Bank and the International Finance Corporation, 2014. "Time series" in *Women, Business and the Law, 2012. Removing Barriers to Economic Inclusion* (accessed May 2014).
Note: Assessment based on 80 developing countries.

45 Demirguc-Kunt and Klapper, 2012.

46 World Bank and the IFC, 2014.
47 Hallward-Driemeier, Hasan and Rusu, 2013.
48 *Ibid.*

More recently, between 1995 and 2010, a number of developing countries, most of them located in sub-Saharan Africa and East Asia, also underwent positive changes in women's legal rights related to their economic independence (figure 8.18). Yet, many restrictions remain, particularly with regard to inheritance rights for daughters and wives, and women's legal rights to become the head of household and get a job without a husband's permission. The countries showing the largest number of legal differences between women and men are concentrated in Northern Africa, sub-Saharan Africa and West Asia.[49]

In an additional number of countries, although laws provide for gender equality in inheritance for the overall population, discrimination is still found in practice among some groups of population (figure 8.19). This is the case for about half of the 116 developing countries with available information. Discriminatory informal laws, customs and practices also restrict women's access to land and other property in a large proportion of developing countries, including in more than three quarters with regard to land and nearly two thirds with regard to other property.

While data on legal and customary practices of discrimination against women in access to property are available for a majority of countries, individual-level data on ownership of land and other assets are currently lacking (see box 8.5). However, the limited number of existing case studies points to gender inequality. For instance, in Ecuador, Ghana and India, women own land, dwellings, livestock and agricultural equipment less often than men.[50]

In summary, women have considerably lower access than men to cash labour income, and persistent discriminatory statutory and customary laws restrict women's access to land and other assets in many countries. Many women do not have decision-power over their own cash labour income and household resources, particularly in the poorest households. This lower access to economic resources increases women's economic dependency on men and, in certain types of family arrangements, results in higher poverty rates for women. Gender disparities in poverty are becoming more visible with the diversification of family arrangements, including an increase in one-person households and one-parent families. Working-age women in developed and developing countries are more likely to be poor than men when they have dependent children and no partners to contribute to the household income or when their own income is non-existent or too low to support the entire family. At older ages, women in developed countries are more likely than men to be poor, particularly when living in one-person households. The emerging diversification of family arrangements, including the increase in single parenthood and independent living in one-person households during older ages has a gender dimension that is yet to be adequately accounted for by social protection programmes. More data are needed to provide a comprehensive view of the links between gender, poverty, living arrangements and the impact of various components of social protection programmes and to support and monitor policymaking. The measurement of poverty itself needs to integrate a gender perspective and account for intrahousehold inequality on a series of dimensions of deprivations that limit women's choices and opportunities.

Figure 8.19

Proportion of developing countries with gender inequality with regard to inheritance rights, entitlements to ownership of land and other property, 2014
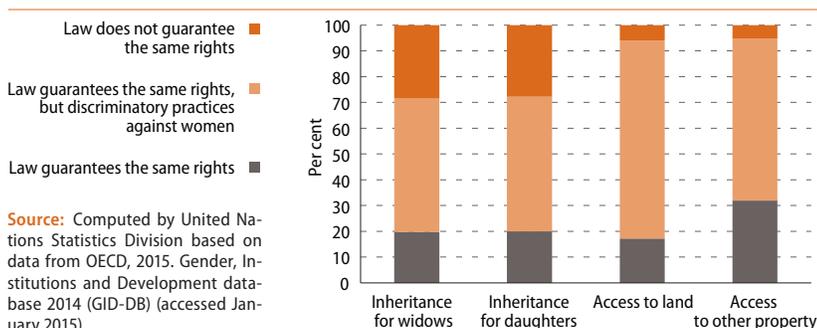
Law does not guarantee the same rights

Law guarantees the same rights, but discriminatory practices against women

Law guarantees the same rights

Note: Information available for 116 countries.

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49 *Ibid.*
50 Doss and others, 2011.

Box 8.5
Measuring individual-level asset ownership and control from a gender perspective

Traditional poverty studies define poverty as a lack of income or consumption, but this approach often fails to capture the wide range of vulnerabilities experienced by individuals. Asset-based studies provide important insights into people's well-being because they focus on the accumulation of assets over the life cycle. Assets serve multiple functions. In their productive capacity, they generate income and facilitate access to capital and credit. They also strengthen a household's capacity to cope with and respond to shocks by enhancing its ability to diversify income and ease liquidity constraints. Moreover, assets comprise a store of wealth that can be sold to generate income. Finally, they may provide status and security.

Most assets are owned and controlled by individuals within households, either solely or jointly with another person. Prior research suggests a strong association between *who* in the household owns assets and important development outcomes, including in terms of nutrition, health and education. In Ghana, for example, women's landholdings are positively correlated with household food expenditure.[a] In Bangladesh, Ethiopia and South Africa, the greater a woman's asset holdings at marriage, the larger the share the household spends on children's education.[b] In Bangladesh, a higher share of assets in women's hands is also associated with better health outcomes for girls.[c] Indicators of women's asset ownership are also correlated with egalitarian decision-making in Ecuador and Ghana,[d] and several studies indicate that asset ownership can protect against spousal violence.[e]

By measuring asset ownership and control at the individual level, policymakers are thus better equipped to understand women's empowerment and well-being, including their economic vulnerability and decision-making, and to address other related policy issues, such as those referring to livelihoods, including agricultural productivity and entrepreneurship, and reductions in poverty and vulnerability. Yet, despite these important policy implications, relatively little data exist on individual ownership and control of assets, particularly data derived from nationally representative surveys.[f] Instead, when asset data are collected, it is usually done at the household level by asking questions about whether anyone in the household owns land, housing or other key assets.

To integrate data collection on individual-level asset ownership and control into the regular production of official statistics, the Evidence and Data for Gender Equality (EDGE) project,[g] a joint initiative of the United Nations Statistics Division and UN-Women, is developing methodological guidance for national statistical offices on measuring individual-level ownership and control of financial and physical assets, including agricultural land, dwellings, other real estate, livestock, agricultural equipment, valuables, enterprise assets, financial assets and liabilities.

The EDGE methodology conceptualizes asset ownership as a bundle of rights, including the right to sell and bequeath and manage an asset and to use the benefits accruing from it. It should be noted that these rights may not all accrue to the same individual, and ownership may be supported by legal documents or simply recognized within the community. In this regard, four approaches in collecting data on asset ownership and control are proposed by the EDGE initiative. The first is to collect information on reported ownership by asking respondents to identify who owns the asset, either individually or jointly. The second approach is to collect information on documented ownership, by asking respondents whether formal ownership documents exist for an asset and whose names are listed as an owner on the documents. The third approach is to collect information on economic ownership by asking respondents which person(s) would control the proceeds from the sale of the asset. The fourth approach is to ask about particular rights over an asset, including the rights to sell and bequeath an asset. This proposed EDGE methodology is currently piloted in select countries. The findings of these pilots will inform international guidelines in measuring individual-level asset ownership and control from a gender perspective that would equip countries to collect data in a comparable manner, monitor gendered patterns of asset ownership, and create or enhance policies to improve the well-being of women and their households.

a Doss, 2005.
b Quisumbing and Maluccio, 2003.
c Hallman, 2000.
d Deere and Twyman, 2012.
e Bhattacharyya, Bedi and Chhachhi, 2011; Grabe, 2010; Panda and Agarwal, 2005.
f Initiatives that include some individual-level asset data include the World Bank's Living Standard Measurement Study-Integrated Surveys on Agriculture (LSMS-ISA), the Agricultural Censuses supported by FAO, the Gender Asset Gap Project's (GAGP) work in Ecuador, Ghana and India, the Women's Empowerment in Agriculture Index (WEAI) and the Demographic and Health Surveys (DHS).
g For additional information see United Nations Statistics Division, Evidence and Data for Gender Equality, at http://unstats.un.org/unsd/gender/EDGE/about.html.

List of countries, areas and geographical groupings

Africa

Northern Africa

Algeria[a]

Egypt[a]

Libya[a]

Morocco[a]

Tunisia[a]

Sub-Saharan Africa

Angola[b]

Benin[c]

Botswana[b]

Burkina Faso[c]

Burundi[d]

Cabo Verde[c]

Cameroon[e]

Central African Republic[e]

Chad[e]

Comoros[d]

Congo[e]

Cote d'Ivoire[c]

Democratic Republic of the Congo[d]

Djibouti[d]

Equatorial Guinea[e]

Eritrea[d]

Ethiopia[d]

Gabon[e]

Gambia[c]

Ghana[c]

Guinea[c]

Guinea-Bissau[c]

Kenya[d]

Lesotho[b]

Liberia[c]

Madagascar[d]

Malawi[b]

Mali[c]

Mauritania[a]

Mauritius[b]

Mozambique[b]

Sub-Saharan Africa (*continued*)

Namibia[b]

Niger[c]

Nigeria[c]

Réunion

Rwanda[d]

Sao Tome and Principe[e]

Senegal[c]

Seychelles[d, f]

Sierra Leone[c]

Somalia[d]

South Africa[b]

South Sudan[d]

Sudan[a]

Swaziland[b]

Togo[c]

Uganda[d]

United Republic of Tanzania[d]

Zambia[b]

Zimbabwe[b]

Asia

Caucasus and Central Asia

Armenia

Azerbaijan

Georgia

Kazakhstan

Kyrgyzstan

Tajikistan

Turkmenistan

Uzbekistan

Eastern Asia

China

China, Hong Kong Special Administrative Region

China, Macao Special Administrative Region

Democratic People's Republic of Korea

Mongolia

Republic of Korea

South-Eastern Asia

Brunei Darussalam

Cambodia

Indonesia

Lao People's Democratic Republic

Malaysia

Myanmar

Philippines

Singapore

Thailand

Timor-Leste

Viet Nam

Southern Asia

Afghanistan

Bangladesh

Bhutan

India

Iran (Islamic Republic of)

Maldives

Nepal

Pakistan

Sri Lanka

Western Asia

Bahrain

Iraq

Jordan

Kuwait

Lebanon

Oman

Qatar

Saudi Arabia

State of Palestine

Syrian Arab Republic

Turkey

United Arab Emirates

Yemen

Latin America and the Caribbean

Caribbean

Anguilla[f]

Antigua and Barbuda[f]

Aruba

Bahamas

Barbados

British Virgin Islands[f]

Cayman Islands[f]

Cuba

Dominica[f]

Dominican Republic

Grenada

Guadeloupe

Haiti

Jamaica

Martinique

Montserrat[f]

Puerto Rico

Saint Kitts and Nevis[f]

Saint Lucia

Saint Vincent and the Grenadines

Trinidad and Tobago

Turks and Caicos Islands[f]

United States Virgin Islands

Latin America

Argentina

Belize

Bolivia (Plurinational State of)

Brazil

Chile

Colombia

Costa Rica

Ecuador

El Salvador

Guatemala

Guyana

Honduras

Mexico

Nicaragua

Panama

Latin America (*continued*)

Paraguay

Peru

Suriname

Uruguay

Venezuela (Bolivarian Republic of)

Oceania

American Samoa[f]

Cook Islands[f]

Fiji

Kiribati

Marshall Islands[f]

Micronesia (Federated States of)

Nauru[f]

New Caledonia

Niue[f]

Palau[f]

Papua New Guinea

Samoa

Solomon Islands

Tonga

Tuvalu[f]

Vanuatu

Developed regions

Eastern Europe

Belarus

Bulgaria

Czech Republic

Hungary

Poland

Republic of Moldova

Romania

Russian Federation

Slovakia

Ukraine

Northern Europe

Denmark

Estonia

Finland

Iceland

Northern Europe (*continued*)

Ireland

Latvia

Lithuania

Norway

Sweden

United Kingdom of Great Britain and Northern Ireland

Southern Europe

Albania

Andorra[f]

Bosnia and Herzegovina

Croatia

Greece

Italy

Malta

Montenegro

Portugal

San Marino[f]

Serbia

Slovenia

Spain

The former Yugoslav Republic of Macedonia

Western Europe

Austria

Belgium

France

Germany

Liechtenstein[f]

Luxembourg

Monaco[f]

Netherlands

Switzerland

Other developed regions

Australia

Bermuda[f]

Canada

Cyprus

Israel

Japan

New Zealand

United States of America

Notes
[a] Included in North Africa as per sub-regional groupings of UNECA used in MDGs reports.
[b] Included in Southern Africa as per sub-regional groupings of UNECA used in MDGs reports.
[c] Included in West Africa as per sub-regional groupings of UNECA used in MDGs reports.
[d] Included in Eastern Africa as per sub-regional groupings of UNECA used in MDGs reports.
[e] Included in Central Africa as per sub-regional groupings of the United Nations Economic Commission for Africa (UNECA) used in MDGs reports.
[f] Countries or areas with a population of less than 100,000 as of 1 July 2015.

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Opening up Education

*A Support Framework for
Higher Education
Institutions*

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2016

Joint
Research
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Abstract

Opening up Education: A Support Framework for Higher Education Institutions

This report presents a support framework for higher education institutions (HEIs) to open up education. This framework proposes a wide definition of the term 'open education', which accommodates different uses, in order to promote transparency and a holistic approach to practice. It goes beyond OER, MOOCs and open access to embrace 10 dimensions of open education. The framework can be used as a tool by HEI staff to help them think through strategic decisions: pedagogical approaches, collaboration between individuals and institutions, recognition of non-formal learning and different ways of making content available. Contemporary open education is mostly enabled by ICTs and because of this, there is almost limitless potential for innovation and reach, which in turn contributes to the modernisation of higher education in Europe.

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Foreword

This report is the final outcome of the OpenEdu Project, which aimed to support the Communication 'Opening up Education: Innovative Teaching and Learning for All through New Technologies and Open Educational Resources' (DG EAC, 2013). It presents open education as an umbrella term under which different understandings of open education can be accommodated, such as open educational resources and MOOCs. The report also presents the main outcome of the OpenEdu project, the OpenEdu Framework for higher education institutions.

This Framework identifies 10 dimensions of open education, giving a rationale and descriptors for each. The goal is to promote transparency for collaboration and exchange of practices among higher education institutions. Without a framework, stakeholders could overlook important questions and could put effort into matters that need little further investment. It is a tool to be used mainly by higher education institutions, but it is also very relevant for EU policy makers and other types of educational institutions.

Other reports of the OpenEdu Project are:

- JRC IPTS report (2016) OpenCases: Case Studies on Openness in Education.

- JRC IPTS Report (2016) Validation of Non-formal MOOC-based Learning: An Analysis of Assessment and Recognition Practices in Europe (OpenCred)

- JRC IPTS Report (2016) How are higher education institutions dealing with openness? A survey of practices, beliefs and strategies in five European countries (OpenSurvey)

- JRC IPTS Report (2015) OpenCases: A catalogue of mini cases on open education in Europe.

OpenEdu was carried out by JRC-IPTS (Seville) on behalf of DG-EAC, in collaboration with other experts and organisations.

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Technology Dimension	András Benedek Budapest University of Technology and Economics, Hungary	Edmundo Tovar Universidad Politécnica de Madrid, Spain	Javiera Atenas University College London, UK	Jesus Moreno Programamos, Spain	Martin Ebner Graz University of Technology, Austria		
Quality Dimension	Christian Stracke Open University of Netherlands (OUNL), Netherlands	Ebba Ossiannilsson Swedish Association for Distance Education, Sweden	Svetlana Knyazeva UNESCO IITE, Russia				
Leadership Dimension	Carina Bossu Tasmanian Institute of Learning and Teaching, Australia	Fred Mulder Emeritus UNESCO / ICDE Chair Open University of Netherlands (OUNL), Netherlands					

Executive summary

The report 'Opening up Education: a Support Framework for Higher Education Institutions' is the final outcome of the OpenEdu project carried out by IPTS (2013-2015) on behalf of DG Education and Culture. It presents a support framework for higher education institutions to open up education.

In the OpenEdu project, open education is seen as a way of carrying out education, often using digital technologies. Its aim is to widen access and participation to everyone by removing barriers and making learning accessible, abundant, and customisable for all. It offers multiple ways of teaching and learning, building and sharing knowledge. It also provides a variety of access routes to formal and non-formal education, and connects the two.

Open education is an umbrella term, under which different understandings of open education can be accommodated. In Europe, and particularly in higher education, opening up education does not refer specifically to the opening up of educational materials under an open license. It does not only mean the availability of open access research in repositories either, but these two can and should be included in the broader concept of open education.

Open education is becoming ever more important in European higher education due to the fact that digital technologies are one of the main driving forces behind education modernisation. The use of digital technologies for teaching and learning is no longer limited to open universities or virtual universities, but has spread through all types of institutions, both the more traditional and the *avant-garde*.

Through open education each and every individual, at every stage in their lives and career development, can have appropriate and meaningful educational opportunities available to them. These include access to content, courses, support, assessment and certification in ways that are flexible, and accommodate diverse needs. Barriers, as regards for example entry or cost, are reduced or eliminated.

Policy context

The report supports the Communication "Opening up Education: Innovative Teaching and Learning for All through New Technologies and Open Educational Resources[1]", which was launched by the European Commission in September 2013. The Communication argues for a change in the framework conditions in which Higher Education (HE) institutions operate in Member States, to allow them to grasp the opportunities that ICT provides (p.4). It also advocates that "Europe should act now providing the right policy framework and a stimulus to introduce innovative learning and teaching practices in schools, universities, vocational education and training" (p.3). The OpenEdu framework for opening up education was designed to contribute to this objective. It aims to provide institutions, Member States (MS) and policy makers in the European Union with a tool that helps them think about the different areas in which open education can incite change and innovation, and ensure that appropriate policies and practices are in place.

The OpenEdu framework also contributes to the 2016 Communication 'A New Skills Agenda for Europe – Working Together to Strengthen Human Capital, Employability and Competitiveness'[2], in which it is observed that skills acquisition and development are essential for the performance and modernisation of labour markets. Lifelong learning via open education is expected to be a route for enhancing individuals' employability. In addition, open and innovative education via digital technologies is one of the six new priorities areas for Education and Training 2020[3].

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[1] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52013DC0654
[2] http://ec.europa.eu/social/main.jsp?catId=1223&langId=en
[3] http://ec.europa.eu/education/news/2015/0901-et2020-new-priorities_en.htm

Opening up education is an important item on the European policy agenda for many reasons. First, it can help to reduce or remove barriers to education (e.g. cost, geography, time, entry requirements). This gives learners the opportunity to up skill or re-skill at a lower or nearly no cost, and in a flexible way - important considerations in the economic crisis faced by Europe today. Second, it supports the modernisation of higher education in Europe, since contemporary open education is largely carried out via digital technologies. Finally, it opens up the possibility of bridging non-formal and formal education. This can take place if HE institutions and other accredited institutions recognised the credentials they each issue to learners.

A lot still needs to be done for open education practices to become a strong tool for social and economic development. There needs to be a strategic opening up of education by higher education institutions if they are to address some of the social issues that are important for Europe at the moment, such as enhanced workforce skills, access to job opportunities and personal growth of citizens. This report addresses an important question raised by this complex scenario: i.e. how can higher education institutions engage with open education strategically to help achieve these goals, and cater at the same time for their own institutional and local needs?

The report is mostly aimed at university management and decision makers, that is, anyone who is in charge of open education or who can propose it as an important part of the overall institutional strategy. The report is also directed at those staff members of HE institutions who actually design educational strategy. It offers a framework which can help them think through critical questions, such as: why is open education important and what is it exactly? What benefits can an open education strategy bring to an institution, to students (and to others out there), to a region, country or to Europe as a whole? If one were to design an open education strategy for an institution, or better, re-design a current university strategy to embrace open education and become a more open institution, what should one take into account? What are the main pillars of opening up education? These are questions often asked by HE institutions across Europe; particularly the many which are not yet active on the contemporary open education front[4]. Finally, this report is relevant for policy makers at European level since it can help them formulate policies to encourage institutions to open up education.

The framework presented in this report was based on the results from four studies designed by IPTS on open education. These studies included intensive desk research, reviews of academic and grey literature (websites, blogs, newspapers, reports), and consultation and validation with experts (both in-house and online). The framework also underwent final validation by its target audience, i.e. the decision makers at universities across Europe.

These four IPTS studies were carried out to provide data and information on the state-of-the-art of open education in Europe: OpenCred[5], OpenCases[6], MOOCknowledge[7] and

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[4] The OpenSurvey study of the OpenEdu Project brings numbers on open education uptake in 5 European countries.
Castaño-Muñoz, J., Punie, Y., Inamorato dos Santos, A., Mitic, M., Morais, R. (2016) *How Are Higher Education Institutions Dealing with Openness? A Survey of Practices, Beliefs, and Strategies in Five European Countries.* Luxembourg: Publications Offices of the European Union.

[5] Witthaus, G., Inamorato dos Santos, A., Childs, M., Tannhäuser, A., Conole, G., Nkuyubwatsi, B., Punie, Y. (2016) *Validation of Non-formal MOOC-based Learning: An Analysis of Assessment and Recognition Practices in Europe (OpenCred)*. Luxembourg: Publications Offices of the European Union.

[6] Souto-Otero, M., Inamorato dos Santos, A., Shields, R., Castaño-Muñoz, J., Devaux, A., Oberheidt, S., Punie, Y. (2016) *OpenCases: Case Studies on Openness in Education*. Luxembourg: Publications Offices of the European Union

[7] http://moocknowledge.eu/

OpenSurvey[8]. The results from all four studies point to the need to focus on open education strategy, hence the framework. Since most universities in Europe involved in open education in one way or another are experimenting, sometimes in arbitrary and *ad hoc* ways, they do not have a strategy in place. Those that are not experimenting and do not have plans to do so, would benefit from a vision of how open education can help them improve their educational provision. In sum, there is a need for a common understanding of open education in Europe, which would allow higher education institutions to make it a powerful tool for networked practices, learner and institutional development, and a mechanism for social change by providing a bridge between non-formal and formal learning.

Main findings

The OpenEdu framework for higher education institutions presents 10 dimensions for opening up education. Each dimension interrelates with all the others and allows for different degrees of openness. It is a holistic view of open education which includes different areas where universities can be more open. Institutional stakeholders, 43 open education experts from Europe and abroad, and university managers from 19 European Member States have been involved in different phases of both the development and evaluation of the framework.

The 10 dimensions of the framework are divided into two categories: core dimensions and transversal dimensions. There are 6 core dimensions (access, content, pedagogy, recognition, collaboration and research) and 4 transversal dimensions (strategy, technology, quality and leadership). All dimensions are interrelated; the core dimensions are not more important than the transversal ones. Core dimensions represent the 'what' of open education and transversal dimensions indicate `how' to achieve it.

For example, open education is often thought of as relating to content (OER) or research (open access). The framework places opening up education beyond these two aspects, and introduces both content and research as core dimensions ('what' is included), which are supported by means of the 4 transversal dimensions ('how' it is provided). For example, if a university were to decide to focus on the content and research dimensions for the institutional opening up of education, they could use a repository to share content and research (*technology*). This would be supported by a *strategy* to widen access to learners and increase the institution's reputation and reach by enhancing downloads of research and educational material. The process could be led by both a bottom-up and top-down approach of staff engagement (*leadership*) and would seek a high standard of education provision (*quality*). In this example, as previously indicated, the core dimensions also interact with one another, since *content* (courses) and *research* both have an intrinsic relationship to *pedagogy* and *collaboration*.

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[8]   Castaño-Muñoz, J., Punie, Y., Inamorato dos Santos, A., Mitic, M., Morais, R. (2016)
      How Are Higher Education Institutions Dealing with Openness? A Survey of Practices, Beliefs, and Strategies in Five European Countries. *Luxembourg: Publications Office of the European Union*
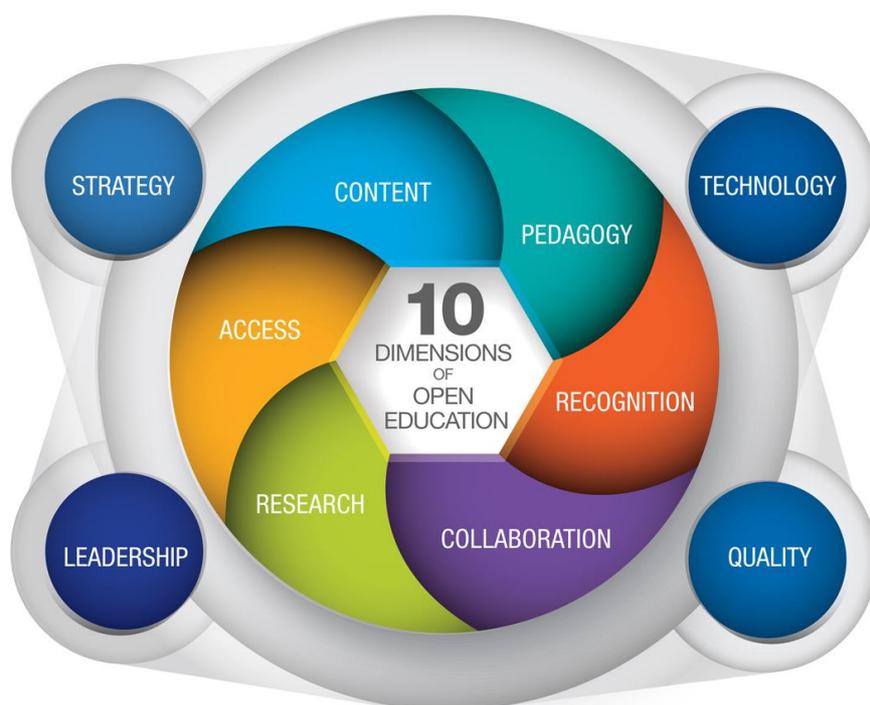
Figure 1: The 10 dimensions of open education

In each dimension of open education in the framework there are descriptors of possible practices and institutional policies[9]. Thus, by presenting the dimensions involved in open education, the framework helps to provide insight and inspiration for institutions when they design how they will open up education.

Those involved in the strategic planning of higher education institutions should contemplate:

- Having a holistic strategy for opening up education that encompasses the 10 dimensions of the OpenEdu framework,
- Making the open education strategy part of the overall institutional strategy,
- Promoting intra, inter and cross-border collaboration and also partnerships to achieve open education goals,
- Exploring new practices and welcoming changes,
- Revising their practices at all levels to embrace openness: mission statement and vision, current organisational management structures and day-to-day policies, and the institution's role in the community and globally.

Related and future JRC work

The project *Policy Recommendations for Opening up Education* [10] follows-up on the framework to help higher education institutions open up education by presenting a set of policy recommendations for Member States and the EU. Opening up education must involve various stakeholders simultaneously: education providers (institutions), teachers, researchers, learners, employers, governments and EU policy makers. Thus, a

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[9]   The descriptors are presented in full in the annex I of this report.
[10]   https://ec.europa.eu/jrc/open-education

comprehensive approach to opening up educational practices and opportunities can be put in place.

Quick guide

The report introduces a rationale for open education. It presents the dimensions of the opening up education framework and a summary of the descriptors in order to facilitate its use by a variety of stakeholders. This includes high-level decision makers, who will be involved in institutional policy support but not directly in (re-)designing the details of the strategies and activities.

The Annex contains a strategic template in the format of a worksheet. This is meant to be used by universities in conjunction with the full framework, to help them plan opening-up education activities as part of their overall institutional strategies.

1.   Introduction

The report *Opening up Education: a Support Framework for Higher Education Institutions* is the final outcome of the OpenEdu Project carried out by IPTS (2013-2015) on behalf of DG Education and Culture. It presents a framework that can help higher education institutions open up education.

The report supports the Communication "Opening up Education: Innovative Teaching and Learning for All through New Technologies and Open Educational Resources[11]", which was launched by the European Commission in September 2013.

Opening up education is important in the European policy agenda for many reasons. First, it allows access barriers to education to be reduced or removed (e.g. cost, geography, time, and entry requirements). This can make it possible for learners to up skill or re-skill in a cheaper and flexible way - an important consideration in the economic crisis faced by Europe today. Second, it helps to modernise higher education in Europe, since contemporary open education is mostly carried out via digital technologies. Finally, it can bridge non-formal and formal education, by making it easier for HE institutions and other accredited institutions to recognise certificates of learning achievement (to include badges) they each issue to learners.

In order for this to happen, a common way to refer to the affordances of open education is necessary. This would open up educational practices in a collaborative way among European universities, and therefore serve as a mechanism for non-formal learning validation and recognition. It would also provide a ladder for learners to achieve new and improved career opportunities and personal growth. In addition, it would help to bridge non-formal and formal learning.

Open education is an umbrella term under which different understandings of open education can be accommodated. In Europe, and particularly in higher education, opening up education does not refer exclusively to open educational resources or to the availability of open access research in repositories. However, these two aspects of education can and should be included in the broader concept of open education.

Within the OpenEdu study, open education is seen as:

> *a way of carrying out education, often using digital technologies. Its aim is to widen access and participation to everyone by removing barriers and making learning accessible, abundant, and customisable for all. It offers multiple ways of teaching and learning, building and sharing knowledge. It also provides a variety of access routes to formal and non-formal education, and connects the two.*

Through open education each and every individual, at every stage in their lives and career development, can have appropriate and meaningful educational opportunities available to them. These include access to content, courses, support, assessment and certification in ways that are flexible and accommodate diverse needs. Barriers, for example those related to entry and cost, are reduced or eliminated.

Opening up education is important for universities for various reasons. Besides being a policy priority, it works as a catalyst for teaching and learning innovation via digital technologies. There are advantages for open education in every dimension of openness, for all parties involved. Open education has an 'ethos' which prompts thinking in areas that could otherwise be neglected, or left to one side to be carried out on specific occasions, as exceptions rather than the norm. For example, in terms of the *access dimension*, institutions which embrace open education think further about supporting the adaptation of courses to special needs (e.g. physically-challenged learners). They can therefore widen their reach and increase the opportunities for participation in education.

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[11]   http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52013DC0654

Open education also has advantages in terms of the *content dimension*. Learners can access course materials and knowledge with no need to request prior permission, at no cost (except Internet connections), and are able to study at the most convenient times for them. Universities get to see what types of educational materials other universities use to teach similar subjects. They can also see the *pedagogy* supporting the teaching methods, which would otherwise be restricted to formally registered learners, either within a classroom context or behind the password of a private virtual learning environment. Open education enables universities to openly collaborate, and exchange teaching materials or jointly produce them. This is because content provided as an OER lowers barriers for reuse and adaption. All these aspects add to the 'openness' of education, which allows it to attract new audiences. Openness also allows new ways of teaching and learning and more flexibility in terms of how and when educational materials and teaching can be accessed.

If institutions are to fully embrace opening up education, they should align their strategies with efforts to modernise higher education in Europe. These strategies should be open to new audiences and practices and, at the same time, enable institutions to be eligible for inter-institutional collaboration, both regionally and cross-border. At the heart of higher education provision is the mission to make university knowledge, practices and opportunities available to learners in both local and global communities in order to better educate them and push science forward. Open education lends itself to this mission because it has strong focus on the learners, both remote learners who are not formally registered in a higher institution and learners who are registered and attending classes *on-campus or online*.

Designing an open education strategy for an institution, or better, re-designing a current university strategy to embrace open education and become a more open institution is an important step for a university to take towards modernisation. Opening up education brings opportunities for all involved.

1.1 The concept of openness in opening up education

The concept of 'openness' in contemporary open education is constantly evolving, assuming different meanings in different contexts and discourses (Inamorato dos Santos, Punie and Castaño-Muñoz, 2016). Traditionally, based on a model commonly adopted by open universities in the late 60's, 'open' means open entry, easier access to study. This view of openness, termed as 'classical' by Mulder and Janssen (2013), did not cover all the aspects that openness covers today – free of charge access, choice of start times, global availability, etc. (McAndrew 2010). Over time, the concept of openness has evolved to also mean open availability of content and resources, largely as a result of advances in the digital technologies used for educational purposes. The Cape Town Open Education Declaration (2007) stresses that open education is not limited to "just open educational resources. It also draws upon open technologies that facilitate collaborative, flexible learning and the open sharing of teaching practices that empower educators to benefit from the best ideas of their colleagues. It may also grow to include new approaches to assessment, accreditation and collaborative learning".

Openness is the opposite of secrecy. At a societal level, there is a move towards openness, for example through open government, where public records are open to public scrutiny and individuals have access to information previously available to only a few (UNESCO policy brief, 2014). In education, openness is a concept that advocates transparency and the lowering or removal of barriers at all levels within an institution, including the processes involved in research, teaching and learning.

However, openness does mean different things to different people (UNESCO policy brief 2014). Defining 'openness' would be an ongoing task, since it is a flexible concept which embeds a number of different 'opennesses'. Its definition is therefore contextual, and due to its comprehensiveness, is an umbrella term. 'Opening' up education indicates the process undertaken by educational institutions when they carry out open education.

Mulder and Janssen (2013) argue that the term was well chosen in the sense that it implies movement and indicates that not all education should be equally open in every respect.

The working definition of open education used in OpenEdu is broad enough to encompass a variety of practices and all dimensions of open education, and does not restrict it to opening up content or data.

2.   Research design and methodology

OpenEdu, the overarching project which hosts the OpenEdu framework, used a multi-method approach to gathering evidence from a number of sources: i.e. desk research (academic and grey literature), focus groups (face-to-face workshops with stakeholders) and asynchronous online focus groups with experts. The OpenEdu framework was based on the outcomes of this multi-method approach to data collection and analysis, which involved qualitative research methods (case studies, interviews, face-to-face and online discussions and desk research) and quantitative research methods (surveys).

Two workshops [12] (face-to-face focus groups) were held during the project. First, a scoping workshop took place in June 2014 at the IPTS premises. Then, a stakeholder validation workshop took place in November 2015, also at the IPTS. The first workshop ran over 1.5 days and aimed to brainstorm the framework's dimensions of open education, and to help scope the part of the framework related to the recognition of learning achievements. Both practitioners and champions of open education, as well as experts in recognition of non-formal learning (via MOOCs or not) were invited. Participants were mostly academics and members of the Bologna process panel.

The second workshop (face-to-face focus group) also ran over 1.5 days and aimed to validate the full draft framework. The profile of participants was very specific: members of university management boards across Europe (rectors, vice-rectors, presidents, deans and directors). Eighteen European Member States were represented at this workshop. The feedback gathered in both workshops was recorded and at times presented to the IPTS in writing by the participants.

Prior to the second workshop, there was an online validation (online focus group) with open education experts, which ran from September - November 2015. The full draft framework was presented to the experts and specific feedback on definitions, rationale and descriptors for each of the ten dimensions was requested. Participants were divided into ten groups, which worked asynchronously online via wikis (one per dimension). Each wiki had experts in the specific dimension of open education assigned to them. Participants provided feedback and engaged in discussions amongst themselves and with the OpenEdu team.

This online exercise was highly successful. It counted on 43 participants [13] from inside and outside the EU (e.g. from Canada, US, South Africa, Brazil, Australia, among other countries). The wikis were subsequently opened up to the general public for reading only [14]. Overall, the framework counted on input from over 90 individuals (between experts, policy makers and HE institutional managers) during its design and evaluation phases.

2.1   Qualitative methods

The bulk of data input to this framework comes from qualitative data. This is because the framework describes possible open education practices, and evidence from the field was needed. The qualitative methods drawn upon were desk research, case studies, interviews, focus groups (workshops) and asynchronous online focus groups.

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[12]   *Workshop* is a typical word used in the IPTS in research for policy-making. It refers to an event of which the main goal is an in-depth discussion of a topic or the research results of a project. It normally takes the format of a focus group with participants divided into groups. There are also plenary discussions.

[13]   The participants' names are mentioned in the acknowledgements section of the report.

[14]   The URLs to the wikis can be found at the references section of this report.

2.1.1 Case studies, interviews and desk research in OpenEdu

OpenCases[15] is a study on opening up the education practices of nine institutions in Europe which offer open education via MOOCs, OER or a combination of these and other open practices. OpenCases ran during 2015 as part of the OpenEdu project. The study aimed to incorporate examples of openness in teaching, research and strategy. In particular, it aimed to explore how and why higher education institutions, networks and government-led initiatives are dealing with openness in higher education. These kinds of questions can be addressed well through in-depth case studies. Moreover, the study aimed to provide a comprehensive view of how individual institutions, networks and initiatives approach openness, rather than –for example- provide a mapping of the situation regarding different components of openness across the higher education sector. Again, this aim is well aligned with the case-study research method.

The main data collection method for the case studies was semi-structured interviews, followed by desk research. The cases were chosen for their thematic relevance to OpenEdu: there are cases of well-consolidated open education initiatives, a case from a national perspective, cases from institutions which have maturing and evolving open education initiatives, a case from a consortium of universities and a case from a commercial enterprise. The cases are: ETH Zurich, France Université Numeriqué (FUN), OERu, TUDelft, Universidad Carlos III de Madrid, AGH, Virtual University of Bavaria (BVU), OpenupEd and ALISON.

These cases were chosen from fifty mini cases on openness identified via extensive desk research into higher education across Europe. From these fifty cases (published as a sub-product of OpenCases in catalogue format), eight cases were chosen for their approximation to the aforementioned criteria and one was chosen outside of this pool of cases. It corresponds to the private, non-academic educational sector (it is not a university). This number of cases enabled the research team to engage in the analysis of each of them within the time-frame requirements for data collection and analysis. Interviewees were often senior members of staff or staff with a direct role in open education at the institutions.

OpenCred[16] is a study on credentialisation and recognition of non-formal learning via MOOCs. OpenCred was carried out between June 2014 and November 2015 as part of the OpenEdu project. It was based on desk research and in-depth interviews, out of which case studies were produced. The goal was to allow us to better understand the main issues that (open) learners, HE institutions and employers face in the credentialisation and recognition of non-formal learning (which is also referred to as open learning in the OpenCred study).

The triangulation method used for choosing the profile of research participants was done so that a variety of perspectives on recognition from different stakeholder groups could be brought to the fore. The study began with extensive desk research in all twenty-eight European Member States in order to identify cases where institutions offer formal credits for open learning and (open) learners have taken advantage of and/or attempted to get recognition for these credentials by employers. Not much was evident via the desk research, particularly in relation to recognition attempts by learners. As the study went by, it was necessary to discard around eight Member States from the study because little or no information was found on their open education offer and/or on recognition of open learning via open education. However, the OpenCred report does include examples of open education practices from the remaining twenty Member States.

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[15] Souto-Otero, M.; Inamorato dos Santos, A.; Shields, R.; Lazetic, P.; Castaño Muñoz, J.; Devaux, A.; Oberheidt, S.; Punie, Y. (2016) 'OpenCases: Case Studies on Openness in Education'. JRC Science for Policy Report, EUR 27937 EN.

[16] Witthaus, G., Inamorato dos Santos. A., Childs, M., Tannhäuser, A., Conole, G., Nkuyubwatsi, B., Punie, Y. (2016) *Validation of Non-formal MOOC-based Learning: An Analysis of Assessment and Recognition Practices in Europe (OpenCred)*. JRC IPTS Science for Policy Report, EUR 27660 EN

By design, OpenCred carried out six in-depth, semi-structured interviews. The interviewees were two academics from higher education institutions, two MOOC learners and two staff members of employer bodies. There were two interviews for each of the aforementioned profiles. The interviews were transcribed and summarised and three case studies were composed from the information collected.

2.2 Quantitative methods

MOOCKnowledge is an ongoing study of MOOC learners from European MOOC providers, which started in November 2013. It consists of a series of surveys in different time periods (pre-course and post-course, and a follow up questionnaire at least one year after the finalisation of a MOOC). The MOOCKnowledge study was conducted in collaboration with a network of three universities (OUNL, UPM and UOC) and a private organisation (PAU Education).

The research instrument was designed to provide comparable cross-provider and cross-country data at EU level on the demographic and socio-economic characteristics of European MOOCs students; their motivations for and attitudes to taking a MOOC; their perceptions of the learning experience; the behaviour-intention gap (alternative drop out measurement); and the impact of MOOCs on professional and/or academic career and personal life. The study addressed directly the under-representation of learners in current MOOC research by establishing a large-scale cross-provider data collection on European MOOC participants (Kalz et al, 2015).

OpenSurvey[17] was a representative survey of higher education institutions in five EU Member States (France, Germany Spain, Poland and the UK) carried out by IPTS in collaboration with the Academic Cooperation Association (ACA). It took place between November 2014 and July 2015. The survey's objective was to show if, how and to what extent, higher education institutions in these five countries engage in Open Education - and if not, why not. 178 Higher Education institutions (HEIs) from these five EU countries responded to the survey, the main outcome of which was an overview and analysis of the current institutional engagement with MOOCs, OER and other dimensions of openness. The survey team took appropriate measures to avoid selection bias and the overrepresentation of open education early-adopter institutions, therefore its data can be used to describe how the bulk of higher education institutions are dealing with openness.

The OpenSurvey's representativeness, and the fact that it includes novel topics such as collaboration or open science, distinguishes it from other existing surveys on open education topics.

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[17] Castaño-Munoz, J.; Punie, Y., Inamorato dos Santos, A., Mitic, M. and Morais, M. (2016) *How Are Higher Education Institutions Dealing with Openness? A Survey Of Practices, Beliefs and Strategies in Five European Countries*, JRC IPTS Science for Policy Report, EUR 27750 EN.

3. Supporting findings to the framework from the OpenEdu studies

Findings from the four OpenEdu studies, briefly presented in this report, provided input to the framework design. Collectively, these studies offer a big picture of the current open education practices of HE institutions in Europe (both the ones that work well and the ones which do not) and food for thought in terms of what is desirable. Interestingly, the findings of the four OpenEdu studies were in agreement, which suggests that the multi-method approach and triangulation of data collection was an appropriate technique to verify the research results.

All the findings were taken into account when designing the framework and served as the main input into the development of the descriptors contained in each dimension of open education. More specifically:

The OpenCases study produced findings in a number of different areas of open education provision. The most important was the public mission of higher education institutions (HEIs) and their enhancement.

The case studies revealed that currently there is a risk that the enhancement of institutions –particularly as regards their reputations and the quality of learning for traditional students- will become the overriding theme in discussions about open education initiatives such as MOOCs (Souto-Otero, Inamorato dos Santos, Shields, Lažetić, Castaño-Munoz, Devaux, Oberheidt and Punie, 2016).

This finding contributed to increased emphasis being placed in the OpenEdu framework on going 'beyond MOOCs' and also beyond open educational resources. The opening up education process needs to be a constant and ever evolving effort towards openness, which consists of a number of simultaneous actions and strategies on different fronts, such as the ones proposed in the framework for each of the dimensions of open education.

The OpenCases study also identified four conditions that enable institutions to become involved in open education, presented below (Souto-Otero, Inamorato dos Santos, Shields, Lažetić, Castaño-Munoz, Devaux, Oberheidt and Punie, 2016):
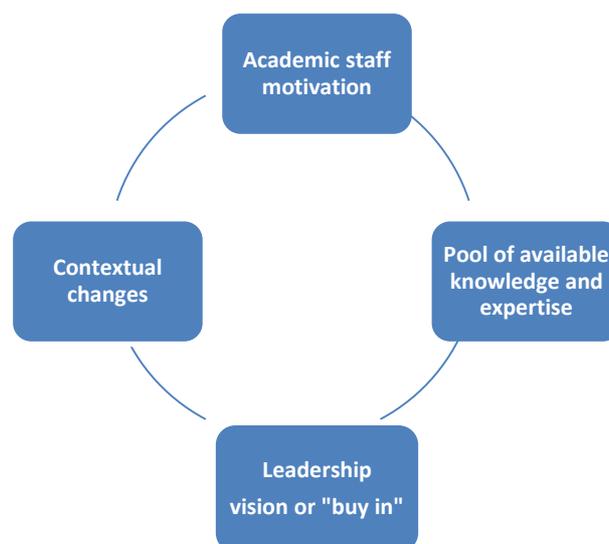
Figure 2: Enabling conditions for involvement in open higher education (OpenCases, 2016)

Academic staff motivation was crucial, given that several institutions reported that involvement in open education is (a) voluntary and (b) rewarded only to a limited extent in career promotion procedures, which tend to prioritise research performance. In one of the case studies (FUN), the reluctance of academic staff to get involved reportedly made it difficult to push the opening up of the institution forward.

This shows that *leadership* is essential, supported by awareness-raising actions. In the framework, leadership is dealt with both top-down and bottom-up, in order to make sure that both staff and learners play a leading role in the design of institutional strategies for opening up education.

The *pool of available knowledge* in the institution (both technological and pedagogical): HEIs that had long-standing experience in the use of electronic learning management systems stated that this facilitated the transition to open education initiatives. The existence of specific staff with expertise in open education helped to convince management and colleagues of its advantages, and also helped them to adopt it.

However, many traditional institutions do not feel they are equipped with the necessary know how in open education that would allow them to come up with valuable provision and make wise decisions. One of the main goals of the framework is to cover precisely this gap.

Leadership vision or 'buy in' can drive open education initiatives. Leadership makes it possible to identify priorities and allocate resources to support open education –either directly or through teaching and learning or innovation funds for projects, the creation of support structures, etc. Leadership commitment may be affected by internal trends (such as the desire to innovate in teaching and learning) or contextual changes, as discussed below.

Contextual changes include the influence of global trends towards greater use of open teaching and research and the Bologna process. It was reported that this process led to the need to adapt educational materials, which some institutions linked to making those materials suitable for inclusion in open courseware repositories. *Regarding open research*, the importance of national initiatives such as the REF (Research Excellence Framework) in the UK, which established incentives –and more recently requirements- for the use of open research repositories, was highlighted. Two other contextual changes have enabled participation in open education: the availability of *new technological solutions* –such as new types of learning platforms and repositories- and the expectations of an *increasingly digitally-literate population*.

Discussions on enabling factors usually refer to factors that are endogenous to HEIs. This suggests that HEIs believe that internal dynamics are the key factor for involvement/ non-involvement in open education.

The OpenSurvey study of the OpenEdu project also elicited similar results to OpenCases. OpenSurvey showed that open education is being practiced by 39.4% of the institutions in the five countries surveyed, either in the form of MOOCs, OER or open online courses, which means that more than half the institutions did not practice open education. Though the benefits of offering open education are recognised by many HEIs, open education is far from being fully mainstream in higher education. In order to spread and promote open education further, three groups of recommendations were derived from the survey data: i) integrate open education into HEIs' overall strategies, ii) increase awareness and understanding of open education within HE institutions, and iii) change existing practices and mechanisms to facilitate the implementation of open education.

Is Open Education (in any of the different forms) provided within your institution?
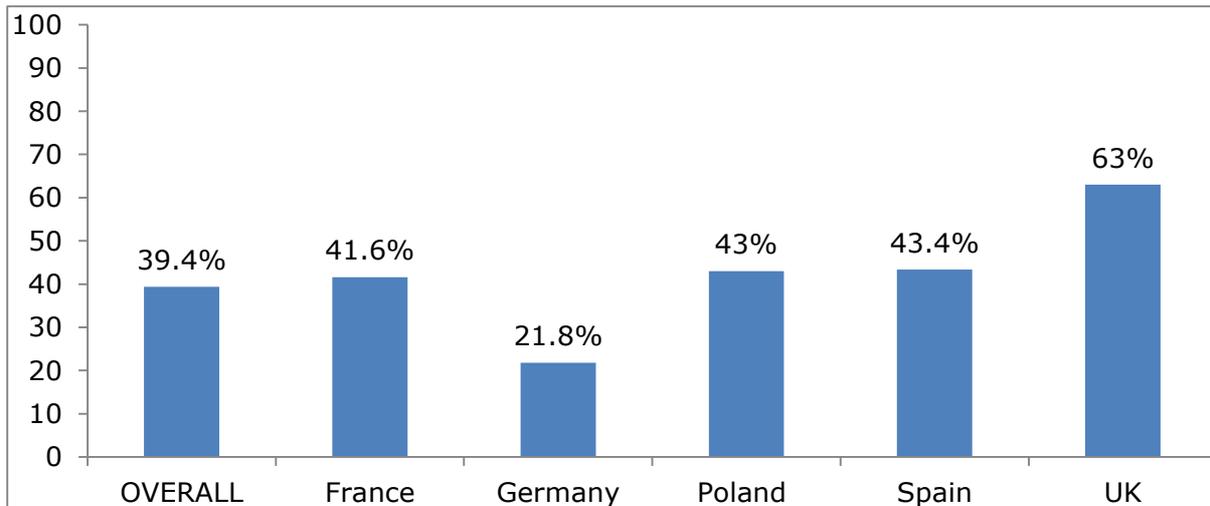

Figure 3: Open Education Provision (source: OpenSurvey Report, 2016)

The survey also revealed that many institutions are not clear on what open education is and how it can be practiced beyond OER and MOOCs. As previously argued, open education is understood differently by different stakeholders. This means that though open education has become fashionable it is still often unclear how it can be put into practice. This lack of clarity prevents universities from thinking about open education with purpose and strategy. A common understanding about open education, however, would enable them to collaborate and share experiences.

The figure below shows that few connections were found between open education and the universities' mission statements:
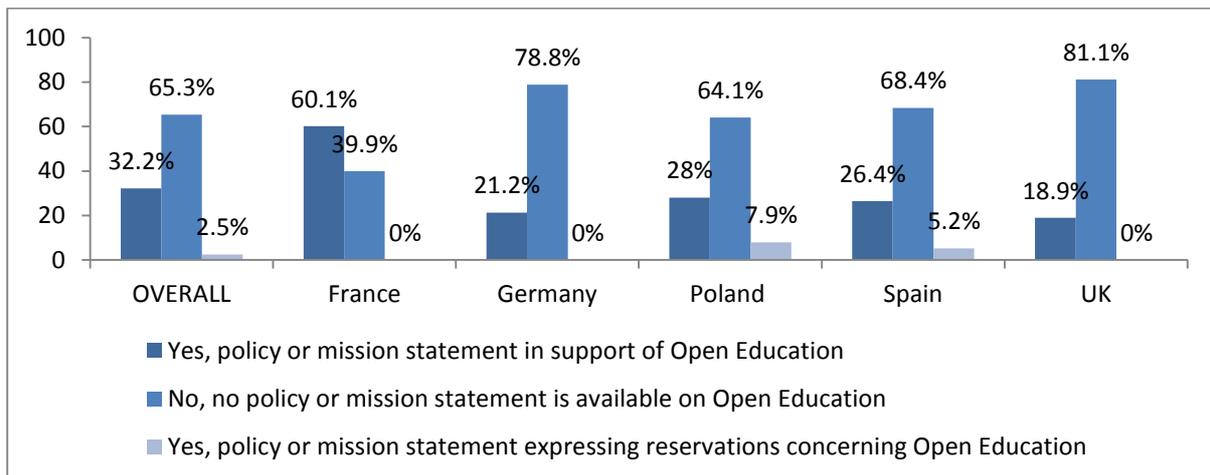
Figure 4: Open Education existence in universities' mission statements (source: OpenSurvey Report, 2016)

Other OpenSurvey study results (Castaño-Munoz, Punie, Inamorato dos Santos, Mitic and Morais, 2016, p. 5) point to the following:

o One fifth of the surveyed HEIs stated that they offer at least one MOOC. In addition, about a quarter of the HEIs that are not offering MOOCs at the moment intend to do so in the future. However, this situation varies among countries, ranging from France, where both the current MOOCs offer and the intentions to offer MOOCs in the

future are high, to others like Germany where both current and planned MOOC offers are low;

o More than 50% of HEIs support the use of OER within their institution. In contrast, only just over one third of HEIs support the development (and offer) of OER. Most of those HEIs that use OERs do so to supplement classical face-to-face instruction and do not substitute core learning materials for OER;

o The main reasons for HEIs not to engage in open education practices are that academic staff is not skilled to use open education and also the difficulties associated with formal recognition of open education. Pedagogical issues are reported as less important challenges;

o Promotion and visibility of the institution and also reaching more students are the strongest drivers for HEIs to engage with open education. Enhancing the quality of education is also an important motivation. Institutions are less convinced about the financial benefits as a major driver for engaging in open education;

o Finally, in all 5 countries studied, HEIs usually lack recognition mechanisms; even in cases where MOOC certificates are based on reliable ways of assessment and linked to a specific number of ECTS. This indicates there is little awareness and/or trust in providing recognition of learning through MOOCs.

The OpenEdu framework provides a working definition of open education to help higher education institutions to perceive it in a more holistic way, and think about how to approach it in their strategy. Most importantly, it also presents a discussion of the different dimensions in which universities can 'open up education'.

The MOOCknowledge study provided results for the first phase of the data collection, which was a pilot of six MOOCs. It showed that while MOOCs are open in terms of access, not all learners are equally likely to participate or succeed. Taking a MOOC and succeeding in it depends on several factors, such as outcome beliefs, socioeconomic status, educational background and digital skills.

In terms of learner profile, the pilot study showed that MOOC learners are mainly educated, working-age individuals, although there are some learners who are either unemployed or on low wages. It seems also that unemployed and low income people have higher expectations of the impact of learning through MOOCs for improving their socio-economic situation, hence their intention to enrol in (more) MOOCs in the future. Overall, for the pilot, MOOC learners tend to have more previous experience with lifelong learning (including MOOCs) and also have a relatively high level of digital skills. The majority of MOOC learners intend to complete the full MOOC, but there are also many who focus only on the parts that specifically interest them. The quality of the content of the MOOCs is considered high, but there is less interaction between learners and with tutors than learners expected before starting the course.

The OpenEdu framework draws attention to the role of learners and the community with regards to opening up education. The collaboration, access and leadership dimensions of the framework, for example, suggest ways in which learners can play a central role in the opening up process. They can produce and share content, propose and lead on ways in which opening up education can take place locally, within a community.

The OpenCred study explored recognition of MOOC-based learning. The study proposed that recognition involves two separate processes – firstly, credentialisation of a learner's learning outcomes or achievements, and secondly, recognition, sometimes by the same institution that awarded the credentials, but often by a different institution or an employer. OpenCred used the terms credentialisation and recognition to refer to these two separate processes. The table below clarifies this distinction:

Table 1: Credentialisation versus Recognition of Learning Outcomes[18]

| Learning outcomes (LOs) are formally acknowledged | … by an educational provider through the act of issuing a credential to the learner, usually on the basis of completed assessment. | Credentialisation of Learning Outcomes |
| | … by an educational institution (which has or has not provided the learning offer) or employer formally granting the learner the right to access or progress in educational or employment activities | Recognition of Learning Outcomes |

In the context of higher education, the study proposed that the aims of recognition of non-formal learning – whether open or not - are:

- Access: through recognition of non-formal open learning, individuals can gain access to programmes offered by educational institutions.
- Progression: registered students can be exempted from part of a programme in order to be fast-tracked through their studies.
- The award of a full HE qualification.

One of the main outcomes of the OpenCred study was the open learning recognition traffic light model. The model describes elements of non-formal, open learning assessment, using a traffic light metaphor:
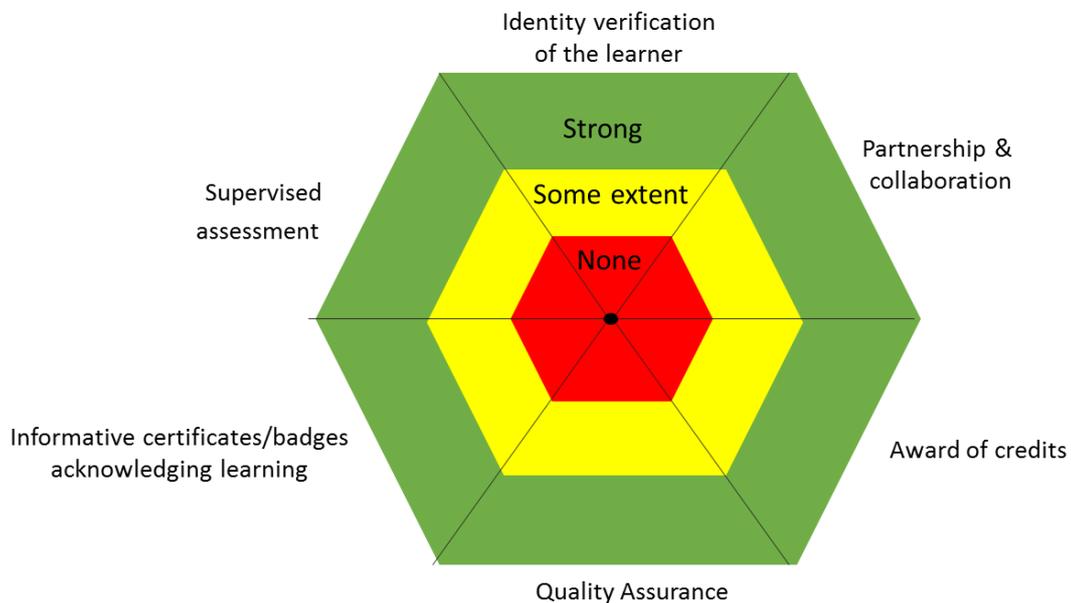
Figure 5: OpenCred Recognition Traffic Light Model[19]

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[18] Source: Witthaus, G. Inamorato dos Santos, A., Childs, M. Tannhäuser, A. Conole, G. Nkuyubwatsi, B. Punie, Y. (2016) Validation of non-formal MOOC-based learning: an analysis of Assessment and Recognition Practices in Europe, JRC IPTS Science for Policy Report, EUR 27660: http://publications.jrc.ec.europa.eu/repository/bitstream/JRC96968/lfna27660enn.pdf

[19] Ibid.

The recognition dimension of the OpenEdu framework proposes that universities have clear policies on recognition of open learning. It provides the traffic light model as a visual tool, which can be displayed on MOOCs and open learning courses, with a view to helping both learners and universities/employers. Students would benefit from upfront information on what to expect from the course they aim to take, e.g. whether or not the course provides ECTS credits and how assessment takes place. Universities and employers would benefit from it for recognition purposes. Looking at the traffic light for a specific course can make it easier to assess whether the course has the level of formality expected for recognition purposes or not, and whether it fits institutional policies on recognition of non-formal learning. The traffic light model aims to inform the learner and to speed up the recognition process by promoting transparency.

4. A support framework for promoting openness in higher education institutions

"No framework provides definitive answers. The answers come from the insights generated by the process of interacting with the framework".
(Eades et al, 2010)

Why is a framework for opening up education important? Because it guides those involved in the strategic planning of HEIs in thinking through critical questions and common practices. Without a framework, they can overlook important considerations or put great effort into practices that may need little more investment. The trick is to use the framework without getting trapped in it and approach it as a supporting tool for the development of strategies.

The OpenEdu framework is proposed as a foundation for developing insights and inspiring visions. It can also be used as a tool for developing a position on open education, by adapting the frameworks' propositions whenever needed. It was designed to help higher education institutions in Europe to make strategic decisions on open education. By defining open education and both its core and transversal dimensions, the framework promotes transparency in practices and proposes a common understanding of open education.

Open education is often understood as open educational resources (OER) and at times as open research data. The framework, however, seeks to promote a more holistic approach to open education. It proposes that contemporary open education goes beyond OER and open research outputs to embrace strategic decisions, teaching methods, collaborations between individuals and institutions, recognition of open learning and different ways of making content available. Contemporary open education is mostly enabled by ICTs and hence, there is endless potential for innovation and reach.

The framework was based on the results from previous and current, designed-for-purpose IPTS research on open education. This included intensive desk research, reviews of academic and grey literature (websites, blogs, newspapers, reports), and consultation and validation with experts (both in-house and online). The framework also underwent final validation by its target audience, who are the decision makers at universities across Europe.

Its main characteristic is that it shows the dynamism of open education and that there is no single correct way of doing it. Rather, open education can involve focusing on openness in specific dimensions of the framework such as content and technology, or more comprehensively, by targeting as much openness as possible in all the dimensions. Whether the first or the second option is chosen, open education remains bound by all the dimensions, which will always interact with one another, to a greater or lesser extent.

The OpenEdu framework focuses on open education as a tool to modernise education via technologies and new teaching and learning practices. At the same time, it aims to lower the barriers to education at many different levels (e.g. access, cost, technology, pedagogy). Another framework that focuses on higher education institutions and complements the OpenEdu framework is HEInnovate[20], which is a self-assessment tool to help universities become more entrepreneurial. It fits well with the OpenEdu framework in terms of its emphasis on collaboration, leadership and organisational capacity (the role of people). The OpenEdu framework can also work as a self-assessment tool on openness but it does not offer any particular benchmark or measurement against which the universities could score or rank themselves. Instead, it offers a number of descriptors that can lead a university to be more or less open in each of the dimensions, according to their own strategic decisions, and provides more detail

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[20] https://heinnovate.eu/about

than HEInnovate in terms of course content and delivery. The framework was designed this way because, at the core of open education, there are a number of different understandings of what it means to be an open institution. There is no right or wrong answer, just practices that can enable openness in a more or less holistic way. Hence, the OpenEdu framework works best as a tool to stimulate ideas on how to open up education. An ultimate goal for openness is something that the institutions should set for themselves.

4.1 How to use the framework

For each dimension, the framework presents a definition of the dimension, a rationale for it, its main components and its descriptors. These descriptors show detailed actions that can be performed by HE institutions to achieve or maintain the level of openness desired in each dimension. The framework can be used differently depending on the stakeholder. It is designed to be used in a dynamic and flexible way, as it invites education institutions to mix and match the dimensions according to their specific requirements and strategic plan. For example, the framework may be used by an executive HE manager, who will probably propose, approve and support policies but not necessarily engage in the detailed design of the activities involved in it. In this case, focusing on the dimensions' definitions and their rationale will be enough to get a flavour of the comprehensiveness of the concept of open education proposed. Some guiding questions might be:

- Does my institution have an overall strategy for education or mission statement that fully embraces opening up?
- If not, why and how could it be done? What would be the challenges and benefits?
- If my institution does have an overall strategy/mission statement, how aligned is it with an open education ethos?
- Which dimensions of the framework are currently most prominent in the institution? To which other dimensions could we pay further attention?
- Who in the institution is playing/could play a leading role in helping us achieve our goals? How could they be supported?
- How does opening up education enable my institution to have a positive local impact in the community, and if possible, globally?
- Who in the community/region could benefit from the opening up of the practices of our university?
- Who are our main collaborators and stakeholders?
- What role do students and community leaders play in this process of opening up education?

However, the framework can be used in much more detail by anyone in charge of thinking deeply about openness as a strategy: i.e. managers, lecturers, researchers, strategists and community stakeholders. In these cases, besides the questions above, further questions can be asked regarding each of the dimensions. An optional opening up education planning template, in the format of a worksheet, is presented in ANNEX II to be used alongside this framework. It presents questions and a guide for stakeholders on things to consider when using the framework.

4.2 The OpenEdu Framework

The OpenEdu framework is presented in full in ANNEX I. It consists of 10 dimensions which are presented as a set of documents containing the definitions, rationale, components and descriptors of each dimension. It is followed by ANNEX II, which is a worksheet to help universities use the framework by eliciting useful questions.

5. The 10 dimensions of open education

The term 'dimensions' was chosen to indicate 'aspects or features of a situation'. In this case, the situation consists of the various ways in which open education is practised in educational institutions. The dimensions consist of different courses of action, focusing on a given area, which interact and together shape the practices of open education.

The *core dimensions* of open education are most commonly found in the practices around open education. They provide the 'what' of opening up education: i.e. access, content, pedagogy, recognition, collaboration and research. These core dimensions, though they are not always treated as such, appear as domains of open education in different institutional contexts where open education is being practised. For example, they can be found in the work of Uvalić-Trumbić and Daniels (2014), Weller (2014), Ros et al (2014), Murphy (2013), Mulder & Janssen (2013), Wiley & Hilton (2009), among many others. These dimensions embody the most common practices and perceptions associated with open education in higher education settings.

The *transversal dimensions* of open education provide the backbone for the realisation of the core dimensions - the 'how' of opening up educational practices. They constantly interact with the core dimensions and with one another. These dimensions are leadership, strategy, quality and technology. Together, they enable open education practices to be shaped in different ways in HE institutions.
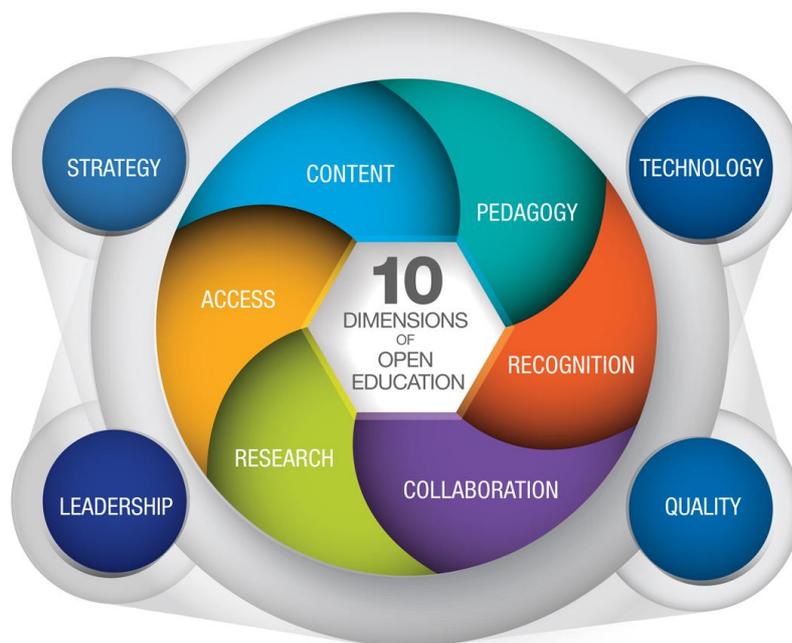

Figure 6: The 10 Dimensions of Open Education

The next section provides an introduction to the dimensions, which are further discussed alongside their components and descriptors in the full framework, which is presented in ANNEX I. All definitions are contextual to opening up education.

5.1 The core dimensions

The core dimensions provide the 'what' of opening up education. For example, what does it mean when it is said that a university is opening up education? The 'what' in opening up needs explaining, e.g. is the university opening up its registration process by allowing anyone to study irrespectively of having previous certification? Or could the university be opening up its content instead? Or even opening up pedagogical practices to include ideas from lecturers of other institutions or countries?

5.1.1 Access

Access in open education is the removal or lowering of economic, technological, geographical and institutional barriers which obstruct the doorway to knowledge. It grants permission to learners to engage with educational content, courses, programmes, communities of practice, networks and other types of knowledge sharing environments, media and activities in formal and non-formal education. It is also about enabling informal and independent learners to seek and get recognition of their learning.

Expanding access to information and knowledge is a core value of openness and a key enabler of formal and non-formal education. Consequently, it is one of the main goals of open education. In practice, from an educational institution's perspective, this broad conception of access can be promoted at three interrelated levels: access to programmes, access to courses, access to educational content (free of charge content or OER), and access to their related communities of practices and networks. This is inclusive of all applicable educational services offered by the institution, as well as access to teachers and other learners.

5.1.2 Content

Content in open education refers to materials for teaching and learning, and research outputs, which are free of charge and available to all.

Content in open education encompasses texts of all sorts, textbooks, course materials, pictures, games, podcasts, video-lectures, software, data, research papers and outputs, and any other type of educational material that conveys information and can be used for teaching and learning. It can be open licensed, in the public domain or copyrighted but still 'gratis' and accessible by everyone without restrictions. It consists of two types of content: open educational resources (OER) and free of charge content.

An OER is content that is 'libre' (openly-licensed content) and at the same time 'gratis' (free of charge). There are different types of OER (e.g. fully licensed or licensed with restrictions). Content in the public domain is also in this category. One of the benefits of using an OER for teaching and learning is that it reduces the possibilities of users infringing copyright. At the same time, it grants greater permissions in the use of content, such as adaptation, translation, remix, reuse and redistribution, depending on the type of license applied to the content. OER can have different granularity, varying from a learning object (e.g. a picture with a specific teaching purpose) to a full course (e.g. a MOOC or an open - libre and gratis - online course).

Free-of-charge content refers to content that is 'gratis' but remains copyrighted. The user does not pay to access it, but at the same time cannot reuse, adapt, or share it without seeking permission from the copyright holder. Free-of-charge content can have different granularity, varying from a learning object to a full course (e.g. a MOOC or an open (gratis) online course). It should, whenever appropriate, be fully licensed to become an OER, which would give the user more permissions in handling the content.

5.1.3 Pedagogy

Openness in pedagogy refers to the use of technologies to broaden pedagogical approaches and make the range of teaching and learning practices more transparent, sharable and visible.

Opening up pedagogical practices is about developing the design for learning so that it widens participation and collaboration between all involved. Pedagogical approaches with an emphasis on the learner are very suitable for open education. The goal is to open up the range of pedagogical practices via ICTs in order to enhance the effectiveness of learning design and increase students' involvement and collaboration. It is also about making pedagogical practices visible, transparent and accessible, by making available the rationale for learning design, the assessments and learning outcomes. It also enables learners to design their own learning path by offering them a wide choice of learning resources.

5.1.4 Recognition

Recognition in open education has two meanings: a) it is the process, usually carried out by an accredited institution, of issuing a certificate, diploma or title which has formal value; b) it is also the process of formally acknowledging and accepting credentials, such as a badge, a certificate, a diploma or title issued by a third-party institution. These credentials should attest that a set of learning outcomes (e.g. knowledge, know-how, skills and/or competences) achieved by an individual has been assessed by a competent body against a predefined standard.

Recognition enables open education learners to make the transition from non-formal to formal education, to complete a programme of tertiary education in a more flexible way, and to get recruited/ promoted at the workplace. When submitting their credentials for recognition, learners expect to gain valid credits which will help them to move ahead professionally and in their personal lives.

Credentialisation also plays an important role in the recognition of open learning. It can be done in a variety of formal or informal ways, and the recognising institution can choose whether to recognise the credentials given, and in what circumstances.

5.1.5 Collaboration

Collaboration in open education is about connecting individuals and institutions by facilitating the exchange of practices and resources with a view to improving education. By collaborating around and through open educational practices, universities can move beyond the typical institutional collaboration patterns and engage individuals and communities to build a bridge between informal, non-formal and formal learning. It is a live and evolving practice which is shaped by individuals according to context, goals, resources and possibilities, contributing to the lowering of barriers to education. It is therefore a concept that must be as dynamic as its practice.

Collaboration in open education is also about removing barriers to education via the networks of individuals and institutions. Learners must be empowered to collaborate with each other and with the institution and community in order to produce knowledge, define their unique learning paths and achieve their goals. More specifically, it has to do with any practice or policy that promotes, for example:

- agreements to support open educational practices. These can take place at different levels: between individuals (formally or informally), intra-institutionally, inter-institutionally, nationally at policy level or cross-border.
- the exchange of knowledge in OER format, free-of-charge content and courses, MOOCs or open access research.
- the co-development of OER and free-of-charge content.

- the co-development and exchange of open educational practices with respect to pedagogies, learning designs, technologies, guidelines, training, accessibility and usage of repositories.
- the empowerment of learners to follow their lifelong learning paths.
- the acceptance and recognition of open education certificates and credits by third party organisations.
- the co-development of open, innovative and digital learning environments.
- practices that cultivate values of equality, non-discrimination and active citizenship.
- respect for socio-cultural differences.

5.1.6 Research

Openness in research is about removing barriers to access to data and research outputs, and also about broadening participation in research.

Openness in research implies a paradigm shift in the modus operandi of research and science which affects the entire scientific process. The underlying idea is to advance science as quickly as possible by sharing and collaborating, rather than trying to publish first in order to secure intellectual property rights and novelty. Researchers can gain from open science activities, both as project participants and as commentators on research ideas and progress, because extended networks provide a larger pool of expertise. Richer data sets are also available to them[21].

5.2 The transversal dimensions

The transversal dimensions of open education cover 'how' educational practices are opened up. They provide the structure for the realisation of the core dimensions. For example, releasing OER, research data or MOOCs to the general public requires a platform, some sort of technology to support this release. Likewise, designing an opening up education strategy for a university requires leadership at various levels (top-down and bottom-up). And without an opening up education strategy it is difficult to plan or to measure results. Moreover, a successful opening up education approach requires quality monitoring, evaluation and assurance. These four transversal dimensions, technology, leadership, strategy and quality, in any given order, are the framework in which these and other dimensions take place. They interact with each other and with the other dimensions. This means that they are not static and are not realised in isolation.

5.2.1 Strategy

Strategy in open education is the creation of a unique and valuable position on openness, involving different sets of activities.

Strategy, in the context of the OpenEdu project, is about defining the values, the commitments, the opportunities, the resources and the capabilities of a HE institution with respect to opening up education. Openness is a vital component of an institution's policy and strategy. It must be integral to the institution's mission. Its relationship to and inter-dependence with other aspects of the institution's wider policy should be clearly articulated and developed by a strategy. Basing an institution's strategy on openness can enhance and enrich the conceptual, operational and financial aspects of the educational offer.

5.2.2 Technology

Technology in open education refers to technological infrastructures and software which facilitate opening up education in its different dimensions.

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[21] European Commission, background document – Public Consultation, Science 2.0: Science in Transition, 2014 https://ec.europa.eu/research/consultations/science-2.0/background.pdf

Technology is a necessary part of open education. Technological infrastructures and software, either open or closed, work as transversal enablers of the different dimensions.

Technological solutions play an important role in validating the identity of people being assessed for the recognition of non-formal learning (e.g. biometrics and proctoring), in making it easier to scale up assessment (test, peer to peer assessment tools and automated essay assessment) and in granting digital badges.

Technological choices have a direct impact on how open education is configured. Consequently, institutions should consider technology when planning their strategies in order to align them and their priorities on open education with the ICT investment they make. The degree to which the technology used by an institution is open reflects its openness culture. Institutions which are committed to the greatest possible level of openness will opt for open standards and open source technologies which are interoperable with other platforms. They will also build or use platforms which allow learners to interact with one another, upload and share content, download, peer-review and modify existing content.

5.2.3 Quality

Quality in open education refers to the convergence of the 5 concepts of quality[22] (efficacy, impact, availability, accuracy and excellence) with an institution's open education offer and opportunities.

In relation to an institution's open education offer, the greater the confluence of the 5 concepts of quality explained below (efficacy, impact, availability, accuracy and excellence), the more reliable and trustworthy this offer will be for open learners.

- *Efficacy*: fitness for purpose of the object/concept being assessed.
- *Impact*: is a measure of the extent to which an object or concept proves effective. It is dependent on the nature of the object/concept itself, the context in which it is applied and the use to which it is put by the user.
- *Availability*: this is a pre-condition for efficacy and impact to be achieved, and thus also forms part of the element of quality. In this sense, availability includes concepts such as transparency and ease-of-access.
- *Accuracy*: is a measure of precision and absence of errors, of a particular process or object.
- *Excellence*: compares the quality of an object or concept to its peers, and to its quality-potential (e.g. the maximum theoretical quality potential it can reach) (Source: JRC IPTS report, 2014).[23]

The degree of quality of an open education offer/opportunity can be measured by different actors, such as the institution itself, its learners or the State. The latter measures the compliance with a given country's legislation and the recommendations of the object being offered (e.g. a course, a certificate, a degree). It can also be measured against the standards of a competent body which can issue credentials, such as a quality assurance agency or an association/community recognised by its members. The granularity in which quality is measured in open education may also vary, ranging from an institution's overall reputation to the quality of a particular offer such as an OER.

Quality in open education also relates to the environment and conditions in which an open education culture is built in an institution. Staff members involved in producing and supporting open education often require time and deserve incentives. An institution which identifies these needs, recognises them as fair and acts responsibly towards them is respecting a fundamental principle of excellence which is the promotion of the best conditions for individuals to tap into their greatness.

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[22] Camilleri, A., Ehlers, U.D., Palowski, J. (2014) State of the Art Review of Quality Issues related to Open Educational Resources. JRC Scientific and Policy Reports, IPTS, Luxembourg: Publications Office of the European Union.
[23] Ibid.

5.2.4 Leadership

Leadership in open education is the promotion of sustainable open education activities and initiatives via a transparent approach from both the top-down and the bottom-up. It paves the way to creating more openness by inspiring and empowering people.

Leadership in open education goes beyond the creation of strategies and activities decided at an executive level. It is above all the identification of champions at different levels, both bottom-up and top-down, who will lead open education at the institution in different strands. It is a transversal dimension because it supports open education practices at different levels: personal motivation, task organisation, collaboration and outcomes management. Leadership in open education should promote actions that enable the take up of open education across a university by a whole range of stakeholders, including learners.

6. Conclusions and recommendations

The research carried out for the OpenEdu Project and its associated studies (OpenCases, OpenCred, OpenSurvey and MOOCknowledge) shows that although opening up education is a policy priority in Europe, many higher education institutions in Member States do not have a strategic plan for opening up their practices. There are various reasons for this:

a) there is no consensus on what opening up education means and hence little common ground on which to build collaboration;

b) opening up education is often seen as only offering OER and MOOCs, or opening up research data – it therefore becomes a specific and isolated practice which does not always form part of an institution's overall educational strategy aligned with its mission; and

c) there is general agreement on the positive value of open education but little clarity on its scope and possible practices, or the subsequent benefits to those involved.

This report aimed to fill these gaps by presenting a support framework for opening up education which introduces ten dimensions of openness and descriptors for each of them. It is a non-prescriptive tool that can be used as needed to develop insights and inspire vision.

The OpenEdu Project has produced recommendations for HE institutions. Those involved in the strategic planning of higher education institutions should contemplate:

- **Having a holistic strategy for opening up education that encompasses the 10 dimensions of the OpenEdu framework**

  Opening up education can be more meaningful and promote social change if efforts are not focused on a single dimension of openness (e.g. opening up content as OER, opening up courses as MOOCs, or opening up research as open data). Instead, efforts should be made to combine a number of different elements which together and on a large scale have the potential to reconfigure the way higher education is realised.

- **Making the open education strategy part of the overall institutional strategy**

  A holistic strategy for opening up education that is fully integrated with the mission and vision of the HEI and targets local and global needs is essential. Including openness within an institution's education strategy can enhance and enrich the conceptual, operational and financial aspects of its educational offer. Without an institutional strategy that encompasses openness, open educational practices would remain experimental and would be easily entangled in discourses which, in isolation, may not be as effective in supporting the modernisation of higher education.

- **Promoting intra, inter and cross-border institutional collaborations and partnerships in order to achieve open education goals**

  Intrinsic to the concept of open education is collaboration and sharing. Inter-institutional collaboration optimises in-house resources and human capital. It is also a step towards scaling up openness: credits can be mutually recognised; courses and content can be co-produced; administrative tasks can be co-managed and research and technology can be shared with colleagues and third-party organisations, to cite just some of the possibilities. Furthermore, cross-border collaboration and partnerships can provide the leverage for opening up education at a European level, enabling local strategies to have a global impact.

- **Exploring new practices and welcoming changes**

  Trying to do new things in old ways often does not lead to the expected results. Opening up education is about being open to new horizons, new practices, new ways of doing things and therefore being open to change. Fully embracing open education requires HE institutions to have courage, commitment, strategy and vision. It is

about sharing the ownership of a lifelong project which will be configured and reconfigured over time.

- **Revising their practices at all levels: mission statement and vision, current organisational management structures and day-to-day policies, and the institution's role in the community and globally**

  Open education is a tool for social change. Once HE institutions fully embrace openness and transparency in their day-to-day practices, enabled by the use of ICTs, the modernisation of higher education will be pushed forward across Europe. Local and global collaboration will be possible, new ideas will be generated and resources will be better deployed. Above all, new practices on knowledge exchange and credit recognition will be possible. These, together, have the potential to make education more inclusive and more mobile, and to lower barriers to access and progression. At the same time, education will fit more closely with the fast-paced changes in the needs of the workforce and labour market.

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Wikis

Access dimension: http://openeducation-accessdimension.wikispaces.com

Content dimension: http://openeducation-contentdimension.wikispaces.com/

Pedagogy dimension: http://openeducation-pedagogydimension.wikispaces.com

Recognition dimension: http://openeducation-recognitiondimension.wikispaces.com/

Collaboration dimension: http://openeducation-collaboration.wikispaces.com/

Research dimension: http://openeducation-researchdimension.wikispaces.com/

Strategy dimension: http://openeducation-strategy.wikispaces.com

Technology dimension: http://openeducation-technologydimension.wikispaces.com/

Leadership dimension: http://openeducation-leadershipdimension.wikispaces.com

Quality dimension: https://openeducation-qualitydimension.wikispaces.com/

List of abbreviations

ECTS   European Credit Transfer System

EQF   European Qualifications Framework

EU   European Union

HE   Higher Education

HEI   Higher Education Institution

MOOC Massive Open Online Course

MS   Member States

OE   Open Education

OEP   Open Educational Practices

OER   Open Educational Resources

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ANNEX I – The OpenEdu Framework

CORE DIMENSION 1	
ACCESS	
Definition	Access in open education is the removal or lowering of economic, technological, geographical and institutional barriers which obstruct the doorway to knowledge. It grants permission to learners to engage with educational content, courses, programmes, communities of practice, networks and other types of knowledge sharing environments, media and activities in formal and non-formal education. It is also about enabling informal and independent learners to seek learning opportunities and get recognition for their learning.
Rationale	Widening access to information and knowledge is a core value of openness and a key enabler of formal and non-formal education. Consequently, it is one of the main goals of open education. In practice, from an educational institution perspective, this broad understanding of access can be promoted at three interrelated levels: access to programmes (which lead to a degree or full qualification), access to courses and access to educational content (free of charge content or OER[24]). It also means access to their related communities of practices and networks. This includes all applicable educational services offered by the institution, as well as access to teachers and other learners.
5 components	**Cost | Accessibility | Flexible learning | Lower entrance requirements for courses and programmes | People**
The components can be considered at different access levels to **programmes**, **courses** and **content**.	In order to facilitate access to education, five components can be promoted by institutions. In practice, these components can be embedded in at least three different levels (programmes, courses, and content). Depending on the level in which the focus is placed, different openness practices and strategies emerge. **Cost of access to resources, courses and programmes.** Cost is a key barrier that must be removed or lowered if access to courses and educational resources is to be widened. Although there is always cost involved in the provision of education and in taking advantage of education opportunities (e.g. from the learner's perspective, there may be the cost of internet connection or the opportunity cost of devoting time to study), the lower the cost, the more open the access to education. New strategies related to open education (free of charge content and open online courses, OER and MOOCs) are challenging educational provision models and configuring alternative approaches that reduce the cost of formal and non-formal education for learners (e.g. by using free open software). **Accessibility and adaptation of educational content (and channels, modes of communication) to specific needs (e.g. physically-challenged learners).** Accessibility is understood as real access possibilities for all, regardless of personal characteristics. Examples of accessibility measures are assistive technologies which focus on language translation, voice recording

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[24] The differences between free content and OER are treated in the *content dimension*.

	of written text, and adapted websites/social media.
	There are web content accessibility guidelines (WCAG) that cover a wide range of recommendations for making web content more accessible.[25] Some specific recommendations [26]are that web content and systems should be:
	• Perceivable: information and user interface components must be presented to users in ways they can perceive.
	• Operable – user interface components and navigation must be operable.
	• Understandable – information and the operation of user interface must be understandable.
	• Robust – content must be robust enough to be interpreted reliably by a wide variety of user agents, including assistive technologies.
	In specific terms, to make open education accessible to physically-challenged open learners, open education websites and repositories could be compliant at least with[27]:
	• *Screen readers*: users with screen reading technology should have no difficulty accessing the text-based content.
	• *Settings*: users who require specific operating systems or browser settings should not have any difficulties with the site, nor should users with screen magnifiers.
	• *Video and audio materials*: it should be possible to play this material through a range of different media players or download the content. Textual descriptions or transcripts should accompany the educational resources whenever possible.
	Flexible learning via internet and mobile technologies, overcoming time and space barriers. In order to facilitate access to education, the Internet and mobile technologies not dependent upon the Internet can be used to overcome temporal and space barriers. This flexibility is especially important for non-traditional learners who have more time and infrastructural constraints and usually constitute the bulk of open education learners (e.g. adult, workers, physically-challenged learners)
	Entrance requirements to courses and programmes. Ideally, open education should not have entrance restrictions such as a minimum level of education, or country of residence. Entrance requirements for non-formal education are decided by the institution. However, for formal education, national legal frameworks may prevent higher education institutions from eliminating entrance requirements. Moreover, the different national policies on entrance requirements can reduce the opportunities for learners to choose cross-border formal education, even when it is provided by open and distance universities. The lack of practical processes for the recognition of prior (open) learning across countries can also limit learner access to formal education and mobility.
	People Open education content, courses and programmes should enable learners to reach and interact with teachers and other learners, in order to exchange ideas and to facilitate learning.

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[25]   See WCAG 2.0 (http://www.w3.org/TR/WCAG20/)
[26]   Source: Open University web accessibility guidelines
[27]   Source http://www.open.ac.uk/about/web-standards/files/web-standards-pa/file/ecms/web-content/OU-Web-Accessibility-Guidelines.pdf

Transversal Dimensions	
Descriptors	
Access to programmes	
Strategy	☐ The offer of MOOC-based programmes and/or programmes based on free-of-charge (open) online courses (or OER, micro-programmes, nanodegrees) is part of the official institutional strategy. The institution: ☐ has reduced/removed the entrance requirements to open education courses and programmes. ☐ has specific measures to ensure the accessibility of its open education offer. ☐ has developed a strategy to offer programmes leading to full degrees ☐ Other. Please specify.
Technology	The institution: ☐ has the adequate technical infrastructure to offer online programmes (servers, connections, etc.). ☐ has adequate digital services to offer and to manage online programmes (VLE, supported assessment, etc.). ☐ has adequate technologies and know-how to offer accessible open education programmes (e.g. to physically-challenged learners). ☐ Other. Please specify.
Quality	☐ The institution implements quality assurance mechanisms related to processes and outputs of MOOC-based programmes and/or free-of-charge (open) online courses (or micro-programmes, nanodegrees), and OER. ☐ Other. Please specify.
Leadership	The institution: ☐ supports the creation of full programmes consisting of free-of-charge (open) online courses, MOOCs and/or OER, leading to the granting of credits, degrees and/or the accreditation and recognition of learning. ☐ supports the creation of micro- programmes consisting of free-of-charge (open) online courses, MOOCs and/or OER leading to nanodegrees. ☐ The institutional staff members are co-responsible for the creation of accessible programmes. ☐ Other. Please specify.
Access to courses	
Strategy	The institution: ☐ has a policy supporting the offer of OER, MOOCs, and /or free-of-charge (open) online courses. ☐ has a policy supporting the adaptation of courses to special needs (e.g. physically-challenged learners). ☐ has a financial sustainability model for the offer of OER, MOOCs/ and or free-of-charge (open) online courses. The institution: ☐ offers mechanisms for teachers to engage with open learners.

	☐ offers mechanisms for open learners and researchers to reach academics and other staff members of the institution.
	☐ Other. Please specify.
Technology	The institution:
	☐ offers adequate technical infrastructure to teachers who aim to offer MOOCs, OER and free-of-charge (open) online courses (e.g. MOOC platform).
	☐ takes advantage of supportive technologies in order to promote accessibility to content and courses.
	☐ provides online content that can be accessed from any device and operating system.
	☐ Other. Please specify.
Quality	☐ The institution has quality assurance mechanisms related to MOOCs and free-of-charge (open) online courses.
	☐ Other. Please specify.
Leadership	The institution:
	☐ offers techno-pedagogical support for staff who want to create OER, MOOCs and free-of-charge (open) online courses.
	☐ offers incentives (e.g. financial, time-related...) for staff who want to create OER, MOOCs and free-of-charge (open) online courses.
	☐ seeks to identify staff members who are motivated by the idea of producing OER, MOOCs and free-of-charge (open) online courses.
	☐ Other. Please specify.
Access to content	
Strategy	The institution:
	☐ has policies on OER and/or free-of-charge (open) online content.
	☐ has a sustainability model for the creation and offer of OER and free-of-charge (open) online content.
	☐ Other. Please specify.
Technology	The institution:
	☐ produces online content can be accessed from any device and operating system.
	☐ seeks to tag content appropriately to increase the possibilities of finding it.
	☐ has an open repository of online resources which can be accessed free of charge, by anyone.
	☐ makes institutionally-developed resources available at no cost users (Learning Resources or Research publications), making them visible in a repository (or the relevant portal), accompanied by metrics on patterns of download and use.
	☐ Other. Please specify.
Quality	The institution:
	☐ encourages users to give their feedback on digital content, thereby allowing social mechanisms of quality control.
	☐ has quality assurance mechanisms related to digital content.
	☐ automatically monitors when the content was created and when it will need updating (e.g. every 2 years).

	☐ Other. Please specify.
Leadership	The institution: ☐ offers techno-pedagogical support for staff who want to create free-of-charge (open) online content or remix OER. ☐ offers incentives (e.g. financial, available working time...) for staff who want to create free-of-charge (open) online content. ☐ seeks to identify staff members who are motivated by the idea of free-of-charge (open) online content production and use. ☐ Other. Please specify.

CORE DIMENSION 2	
CONTENT	
Definition	Content in open education refers to materials for teaching and learning, and research outputs, which are free of charge and available to all.
Rationale	Content in open education encompasses texts of all sorts, textbooks, course materials, pictures, games, podcasts, video lectures, software, data, research papers and outputs, and any other type of educational material that conveys information which can be used for teaching and learning. It can be open licensed, in the public domain or copyrighted but should be 'gratis' and accessible by everyone without restrictions.
2 components	**Open educational resources (OER) | free of charge content**
	OER OER constitute a key component of open education. OER are content that is printed or made available digitally The two main characteristics of OER are that they are "libre" (openly-licensed content) and at the same time "gratis"(free of charge). There are different types *OER* (e.g. fully licensed or partially licensed). Public domain content can also be placed in this category. Using OER for teaching and learning reduces the possibility that users infringe copyright. At the same time OER grants greater permissions in the use of content, such as adaptation, translation, remix, reuse and redistribution, depending on the type of license applied to the content. OER range from individual learning objects (e.g. a picture with a specific teaching purpose) to full courses (e.g. a MOOC or an open (libre and gratis) online course). **Free-of-charge content** Free-of-charge content refers to content that is printed or made available digitally and 'gratis' but remains copyrighted. Though users do not pay to access it, they cannot reuse, adapt or share it without seeking permission from the copyright holder. Free-of-charge content ranges from individual learning objects to full courses (e.g. a MOOC or an open (gratis) online course). Whenever appropriate, free-of-charge content should be fully licensed as OER, thereby granting users greater permissions in handling the content.

Transversal Dimensions	
Descriptors	
OER	
Strategy	The institution: ☐ has a policy on the production and use of free-of-charge content. ☐ uses, produces and offers OER in order to improve its content production mechanisms. ☐ produces, uses and offers OER in the form of MOOCs and/or open (libre and gratis) online courses. ☐ offers information sessions and/or support materials on different types of open licenses. ☐ produces, uses and offers OER as a visibility mechanism to attract students and increase its reputation. ☐ collaborates with other institutions in the production/remix/reuse/redistribution of OER. ☐ encourages staff members to produce, use and share OER. ☐ encourages its students to use OER. ☐ encourages its students to produce and share OER. ☐ Other. Please specify.
Technology	The institution: ☐ explores different digital tools to create and make available meaningful content and with appropriate granularity. ☐ seeks to use audiovisual resources to enhance the content produced. ☐ automatically monitors when the content was created and when it will need updating (e.g. every 2 years). ☐ allows content users to revise and remix content on the institutional platform on which it is offered ☐ allows users to create, remix and share content on the institutional platform. ☐ seeks to tag content appropriately to increase its findability. ☐ places its content on interoperable platforms (e.g. IMS Common cartridge compliant etc.). ☐ Other. Please specify.
Quality	The institution: ☐ has a quality check mechanism in place for its content production (both OER and free-of-charge content). ☐ supports and encourages staff members to develop meaningful assessments for its open education offers. ☐ makes informed decisions on the different types of robustness of assessment for open education (see OpenCred model). ☐ informs its open learners of what sorts of accreditation they may/may not get for studying with a given content. ☐ has guidelines on different OER and free-of-charge content granularity. ☐ encourages quality checks via social mechanisms by enabling user feedback on OER/ free of charge content. ☐ Other. Please specify.

Leadership	☐ Staff members at the institution proactively explore new and suitable assessment practices for the institution's open education offer. The institution: ☐ is committed to being at the forefront of free content offer in its region or country. ☐ seeks to be at the forefront of innovation on OER assessment techniques and tools. ☐ seeks to identify staff members who are motivated by the idea of OER and /or free-of-charge content production and use. ☐ Other. Please specify.
Free-of-charge content	
Strategy	The institution: ☐ has a policy on the production and use free-of-charge content. ☐ produces, uses and offers free-of-charge content as a visibility mechanism to attract students and increase reputation. ☐ produces, uses and offers free of charge content in the form of MOOCs and/or open (gratis) online courses. ☐ collaborates with other institutions in the production and distribution of its free-of-charge content. ☐ encourages staff members to transform their production of free-of-charge content into OER whenever possible and appropriate. ☐ encourages its students to use free-of-charge content. ☐ Other. Please specify.
Technology	The institution ☐ explores different digital tools to create and make available meaningful content with appropriate granularity. ☐ seeks to use audiovisual resources to enhance the content produced. ☐ automatically monitors when the content was created and when it will need updating (e.g. every 2 years). ☐ seeks to tag content appropriately to increase its findability. ☐ Other. Please specify.
Quality	The institution: ☐ has an internal quality check mechanism in place for its free content. ☐ provides quality checks via social mechanisms by encouraging user feedback on free content. ☐ Other. Please specify.
Leadership	The institution: ☐ engages staff members in the proposal of its free content. ☐ rewards (with money, time or career advancement) staff members who engage in producing and using free content. ☐ is committed to being at the forefront of free content offer in its region or country. ☐ seeks to identify staff members who are motivated by the idea of free content production and use. ☐ Other. Please specify.

CORE DIMENSION 3	
PEDAGOGY	
Definition	Openness in pedagogy refers to the use of technologies to broaden access and make the range of teaching and learning practices more transparent, sharable and visible.
Rationale	Opening up pedagogical practices is about developing the design for learning so that it widens participation and collaboration between all involved. Pedagogical approaches with an emphasis on the learner are very suitable to open education. The goal is to open up the range of pedagogical practices via ICTs in order to enhance the effectiveness of the learning design and increase students' involvement and collaboration. It is also about making pedagogical practices visible, transparent and accessible, by making available the rationale for the learning design, the assessments and learning outcomes, and also enabling learners to design their own learning path with a wide choice of learning resources.
5 components	**Supported open learning ǀ Personalised teaching ǀ Collaborative and networked learning ǀ Use of authentic resources ǀ Sharing educational resources and pedagogical practices**
	ICT can enhance the variety of pedagogical approaches by facilitating: **Supported open learning:** Learners take the initiative and the responsibility for their learning processes but they are supported by a mix of media, resources and practices. Learners decide what topic to study, select the learning resources and means, and manage their learning time. They also assess their own learning outcomes, at times counting on other peers or on full assessment by the institution. This type of learning can be pursued at any time, in any place and at any age, but requires commitment, self-discipline and goal-setting. The institution can provide support to open learners to follow their studies independently, such as advice on learning pathway, tutorials, call in phone line and online support, career and accreditation advice, online communities of practice and any other type of suitable support for open learning. **Personalised teaching.** Due to the increasing availability of learning technologies, a more personalized approach to teaching and learning can be taken. The use of learning analytics for example, to detect learners' online patterns of behaviour and preferences, and also personalised learning resources, can be pursued. **Collaborative and networked learning.** Digital communication and collaboration tools make it easier for learners and lecturers to collaborate. In addition, these tools, especially when they take advantage of a social network, facilitate the connection among individuals interested in the same topic. Thus they support learning in communities and networks that go beyond the institution. The nature of open education allows it to be used for implementing collaborative learning. Examples are team projects which involve searching, remixing and modifying OER. **Use of authentic resources** OER, collectively-produced learning materials, and real practitioner/learner networks, are useful

	resources which can make learning activities more meaningful and authentic. Technology can also enable immersive learning via simulations and virtual laboratories. **Sharing educational resources and pedagogical practices.** Open education calls for the use, sharing and adaptation of free-of-charge digital materials, OER and learning design rationales. It also enables educators to share their teaching practices, get advice and learn from colleagues in order to improve their own practices.
Transversal Dimensions	
	Descriptors
Supported open learning	
Strategy	☐ The institution's open education policy supports the use of technology-enhanced inquiry-based learning in their courses. ☐ The institution's open education policy supports the use of open education in order to offer flexibility in the curricula (and learning goals), facilitate students' choice of their own learning processes (e.g. recognising participation in MOOCs or online courses offered by other universities). ☐ The institution's open education policy includes all types of learning services for open learners such as learning pathway design advice, tutoring, online resources, assessment and accreditation support. ☐ The use of ICT/ open education for personalised learning is considered to be a tool that increases the efficiency of open education provision (reducing costs and enhancing results). ☐ The creation of modular curricula that allow students to plan self-directed learning pathways, is considered by the institution to be one of its strategies in the provision of open education. ☐ Other. Please specify.
Technology	The institution: ☐ has technologies that support peer-reviewing by open learners. ☐ offers technologies that enable the mapping of students' own learning. ☐ offers technologies for the creation of learning portfolios and pathways that can be openly accessed and transferred to other platforms. ☐ makes use of a range of learning technologies to support online or blended learning. ☐ Other. Please specify.
Quality	☐ has a quality monitoring system that checks the efficiency of its services to support open learning. ☐ Other(s) Please specify.
Leadership	☐ The institution's open education policy includes the offer of guidance (by lecturers, faculties or a central service) to independent learners who approach the institution for help on deciding on a self-learning path. ☐ Other. Please specify.

Personalised teaching	
Strategy	☐ The institution's open education policy encourages the use of diverse technology-enhanced pedagogical methods for OER, MOOCs and free (and open) online courses in order to adapt education to the needs of the learners. ☐ The institution's open education policy supports the use of learning analytics and/or adaptive learning in order to personalise the courses, content or methods to the needs of the learners.
Technology	☐ The institution's open education policy includes an ethical framework for the use of learning analytics in open courses.
Quality	☐ The offer of optional paid-for teaching services to independent learners is designed as a way of enhancing the quality of the learning experience. ☐ Other. Please specify.
Leadership	The institution: ☐ offers techno-pedagogical support and continuous professional development to its lecturers on how to innovate pedagogy using ICT and open education to create learner-centred courses. ☐ offers incentives for staff who aim to innovate the pedagogical design of their courses using ICT and open education to develop learner-centred courses. ☐ Other. Please specify.
Collaborative and networked learning	
Strategy	☐ The institution's open education policy supports technology-enhanced, networked and distributed learning where the teachers act as facilitators and the learners take control of their own learning (e.g. participation of registered learners in MOOCs, development of cMOOCs – connectivist Massive Open Online Courses). ☐ The institution promotes collaborative learning via ICT as part of the pedagogical strategies for open education. ☐ The institution promotes collaborative learning between peers using OER (e.g. team projects which involve searching, remixing and modifying OER or the searching and use of open data). ☐ The institution's open education policy supports and encourages collaborative and networked learning which takes place between different institutions (e.g. inter-institutional collaboration). ☐ Other. Please specify.
Technology	☐ The institution makes use of learning technologies to support collaborative learning (e.g. discussion forums, joint course assignments). ☐ Other. Please specify.

Quality	☐ Peer quality check is part of the quality monitoring procedure of the institution. ☐ Other. Please specify.
Leadership	The institution: ☐ offers techno-pedagogical support on how to innovate pedagogy through collaborative and networked learning using ICTs and open education. ☐ offers incentives for staff who want to innovate pedagogical practices through collaborative and networked learning using ICTs and open education.
Use of authentic resources	
Strategy	The institution: ☐ promotes the participation of the learners in communities that go beyond the institution. ☐ promotes the use of OER and open data for the solution of real word problems by using authentic resources. (e.g. OER, open data). ☐ promotes the contribution of learners to real public knowledge resources (e.g. Wikipedia, wikis).
Technology	☐ The institution has technologies and policies that allow and support the sharing of research.
Quality	☐ The integration of real word resources, data or communities in pedagogical practices is considered one of the quality criteria of the courses (quality check).
Leadership	The institution: ☐ offers techno-pedagogical support on how to innovate pedagogy by integrating online real word resources, data or communities. ☐ offers incentives for staff who aim to innovate pedagogy by integrating online resources, data or creating/supporting communities of practice.
Sharing educational resources and pedagogical practices	
Strategy	☐ The institution's open education policy promotes pedagogical exchanges among teacher (lecture videos, peer learning, teaching approaches ideas etc.). ☐ The institutional policy promotes the sharing and reuse of OER created by other lecturers.
Technology	☐ The institution promotes the exchange of educational practices by supporting open source technologies and tools that allow users to make comments and download educational content.
Quality	☐ The institution supports the sharing of innovative education practices and allow third parties to peer-review and comment on them to assess and improve their quality (e.g. comments from a group of teachers who collaborate openly online).
Leadership	The institution: ☐ plays a proactive role in encouraging staff members to discuss their educational practices and those of third parties. ☐ offers techno-pedagogical support on how to share educational practices. ☐ offers incentives for staff who want to share educational practices.

CORE DIMENSION 4	
RECOGNITION	
Definition	Recognition in open education has two meanings: a) it is the process, usually carried out by an accredited institution, of issuing a certificate, diploma or title which has formal value; b) it is also the process of formally acknowledging and accepting credentials, such as a badge, a certificate, a diploma or title issued by a third-party institution. These credentials should attest that a set of learning outcomes (e.g. knowledge, know-how, skills and/or competences) achieved by an individual has been assessed by a competent body against a predefined standard.
Rationale	Recognition enables open education learners to make the transition from non-formal to formal education, to complete a programme of tertiary education in a more flexible way, or to get recruited/ promoted at the workplace. When submitting their credentials for recognition, learners expect to gain 'validated credits' which will help them to move ahead professionally and in their personal lives. Credentialisation also plays an important role in the recognition of open learning. It can be done in a variety of formal or informal ways, and the recognising institution can choose whether, and in which circumstances, to recognise the credentials given.
7 components	**Assessment** ∣ **Identity validation** ∣ **Trust and Transparency** ∣ **RPL (recognition of prior learning)** ∣ **Fast Track Recognition** ∣ **Qualification** ∣ **Social recognition**
	Assessment Assessment is the core element of the recognition process. It is defined as the process of appraising knowledge, know-how, skills and/or competences of an individual against predefined criteria (measurement of learning outcomes). Assessment is typically followed by certification (CEDEFOP, 2004/2014). In the case of open education, this can be formal or non-formal certification. The type of certification awarded to open learners will depend on the *robustness of assessment* (OpenCred, 2015). This refers to the extent to which the assessment undertaken by open learners can ensure the appropriate verification of their identities and their knowledge/skills. **Identity validation** The thorough verification of the learner's identity for the sake of assessment and certification is considered essential by universities and is also highly valued by the learners. The most common systems used to identify distance learners, on MOOCs for example, are *biometrics* and *proctoring*. The biometrics system consists of the cross-checking of the learners' photos with their typing pattern. The proctoring system is the monitoring of distance learners taking exams via webcams or specific software. There is also the more conventional exam on a specific site, where learners are monitored by a person. This type of exam is still considered by universities to be the most reliable due to its similarity with that of the traditional education system.

Trust and Transparency

Both trust and transparency are essential for the success of recognition practices in open education. Trust in the open learning recognition context means the reputation built by the institution providing the open education (MOOCs, OER and OCW) and the responsibility with which it engages with open educational practices. Trust has to do with relationship building, reputation management, networking, community engagement, quality control, values and mission. Transparency seems easier to achieve than trust, since it requires that the institution takes steps to increase the visibility of its open education practices, such as course design processes, syllabus and assessment procedures. Inter-institutionally, trust has to do with the relationship the institutions build with one another. The more they collaborate and share, the more they make visible their processes and procedures, their values and goals, and the more trustworthy they become.

RPL (Recognition of Prior Learning)

RPL is the process for recognising learning that took place previously in informal, formal or non-formal contexts: for example, in the workplace and through life experiences. This method of assessment [leading to the award of credits] considers whether a learner can demonstrate that they meet the assessment requirements for a unit or course through knowledge, understanding or skills they already possess, without having to undertake new learning. Once recognised through this process, prior learning can be used to gain credits or exemption for qualifications, and/or for personal and career development (Quality Assurance Agency –QAA, UK; OpenAwards.org). Learners can usually achieve recognition of prior learning by:

➢ Undertaking the same assessments as those following the formal course of learning and assessment that lead to the desired unit or qualification. These assessments may be undertaken without attending the teaching sessions.

➢ Submitting a portfolio of evidence based on previous learning, skills and / or competence cross referenced to the learning outcomes and assessment criteria of the unit or units for which RPL is being sought.

The drawback of RPL for open education is that it is not scalable, since the portfolio needs to be assessed by a lecturer or a designated committee, who will look at it against the original syllabus of the course. This process can be lengthy and time consuming, particularly when agreement is sought. Often, the decision to award credits with RPL procedures relies entirely upon the decision of the lecturer or committee in charge of the dossier of the learner.

Fast Track Recognition

This is a procedure where a group of universities, members of a consortium or not, agree to mutually recognize the certificates of open learners who are looking for credit transfers and formal recognition. This means that, via collaboration, the institutions agree upon the quality standards and assessment procedures which satisfy their requirements for the validation and recognition of previous open learning.

	Qualification:
	Qualification in the open education context means 'formal qualification'. It is the formal outcome (certificate, diploma or title) of an assessment process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards and/or possesses the necessary competence to do a job in a specific area of work. A qualification confers official recognition of the value of learning outcomes in the labour market and in education and training. A qualification can be a legal entitlement to practice a trade (OECD).
	Source: CEDEFOP, 2008/2014, based on Eurydice, 2006; European Training Foundation, 1997; OECD 2007; ILO 1998.
	Qualifications in open education depend on institutions being able to create learning paths that lead to full programmes of study.
	Social recognition
	In the context of open education recognition, social recognition is the value given by society to badges and micro-credentials obtained on the completion of a MOOC or another type of learning via open education (such as OCW). Although social recognition is not a formal type of recognition of learning achievements, it has increasingly been accepted as proof of knowledge by employers and by universities.

Transversal Dimensions

<div align="center">**Descriptors**</div>

Assessment

Strategy	☐ Paid-for open education assessment (in MOOCs/OCW, free-of-charge online courses etc.) is part of the business plan of the institution. ☐ Free open education assessment is part of the strategy of the institution. ☐ Other. Please specify.
Technology	The institution: ☐ uses biometrics systems to verify the learner's identity during assessments. ☐ uses proctoring services to verify the learner's identity in assessments at a distance. ☐ uses technology to verify the identity of the open learner. ☐ Other. Please specify.
Quality	The institution: ☐ has a quality control procedure to verify the design and the undertaking of open education assessments. ☐ has a quality control procedure for the open online courses to which it wishes to award credits.
Leadership	☐ The institution encourages the ECTS (European Credit Transfer System) mapping of its open education courses. ☐ Other. Please specify.

Identity validation	
Strategy	The institution: ☐ invests in hiring/developing proctoring/biometrics services for identity validation of open learners. ☐ accepts and performs face-to-face assessment of open learners as a form of identity validation. ☐ Other. Please specify.
Technology	The institution: ☐ uses proctoring services to verify the learner's identity in assessments at a distance. ☐ uses biometrics systems to verify the learner's identity during assessments. ☐ draws upon decentralised infrastructures for issuing 'travel-well credentials' (e.g. blockchain). ☐ Other. Please specify.
Quality	☐ The institution has established measures to control the reliability of the identity validation procedures of open learners. ☐ Other. Please specify.
Leadership	☐ The institution has policies to support and encourage the thorough verification of the open learner's identity during assessment. ☐ Other. Please specify.
Trust and Transparency	
Strategy	The institution: ☐ values and accepts certificates and qualifications in the format of credit transfer from open learners from other institutions. ☐ seeks to develop long-lasting partnerships with other institutions in order to increase its network and add further value to its reputation. ☐ Other. Please specify.
Technology	☐ The institution makes use of technology and social media to communicate to open learners and partners its values, good practices and experiences/opportunities in open education ☐ Other. Please specify.
Quality	The institution: ☐ gives clear guidelines to staff members on how to design for open education, with strong emphasis on descriptions of expected learning outcomes. ☐ gives clear guidelines to staff members on how to design for open education, with strong emphasis on detailed descriptions of the assessment procedures. ☐ Other. Please specify.

Leadership	☐ The institution proactively informs the learner about the existence (or not) of some open courses components in their initiatives, such as paid-for assessment and price, quality control procedures, credits to be gained per course, requirements for successful study, etc. ☐ Other. Please specify.
RPL	
Strategy	☐ The institution uses RPL as way to assess and recognise open learning. This is a mid-term strategy leading to the establishment of mechanisms for fast-track recognition. ☐ RPL is part of the strategy to recruit new students. ☐ Other. Please specify.
Technology	☐ RPL is done with the support of technologies that enable the blind validation by experts of the institutional verdict on the learners' portfolio. ☐ Other. Please specify.
Quality	☐ The institution has an internal committee which is in charge of assessing the department's decisions on the open learners' portfolios. ☐ RPL carries out blind validation by experts of the institutional verdict on the open learners' portfolio. ☐ Other. Please specify.
Leadership	The institution: ☐ values and rewards departments and individuals who actively encourage and support RPL for open learners. ☐ has identified champions of RPL for open learners, who are in charge of developing strategies to move their institutions from RPL to Fast Track Recognition and to find external collaborators and networks. ☐ Other. Please specify.
Fast Track Recognition	
Strategy	The institution: ☐ understands Fast Track Recognition for open learning as an important strategy for open education. ☐ seeks to develop strategies around the fast track recognition of open learning. ☐ seeks to identify institutional partners to collaborate on the recognition of prior learning for open learners. ☐ Other. Please specify.
Technology	The institution: ☐ makes use of technology for a first screening of portfolios to indicate their eligibility for open learning recognition. ☐ makes use of technology to support fast track recognition of open learning. ☐ uses technology to let open learners know that they can apply for recognition of open learning (e.g. social media, institutional website, online marketing tools). ☐ seeks to develop a strategy to provide transparent and comprehensive online information to both the learners and other

	institutions in relation to its assessment mechanisms for open learning, certification and recognition. ☐ uses technology to verify the identity of the open learner. ☐ Other. Please specify.
Quality	The institution: ☐ is committed to developing a speedy and reliable process for fast track open learning recognition. ☐ has an internal committee, which pre-verifies the reliability of third-party institutions' open learning assessments mechanisms and certification processes in order to establish collaboration on fast track recognition. ☐ seeks to develop a strategy to provide transparent and comprehensive online information to both the learners and other institutions in relation to its assessment mechanisms for open learning, certification and recognition. ☐ Other. Please specify.
Leadership	The institution: ☐ seeks to lead in open education by being at the forefront of open learning fast track recognition. ☐ identifies champions to lead the fast track open learning recognition dossier of the university. ☐ Other. Please specify.
Qualification	
Strategy	The institution: ☐ is committed to mapping its open education offerings against the ECTS (European Credit Transfer System) and EQF (European Qualifications Framework) whenever possible (MOOCs, OCW, OER). ☐ has a strategy on how to offer qualifications via open education. ☐ Other. Please specify.
Technology	The institution: ☐ uses technology to show the learners different qualification routes (e.g. online simulations). ☐ explores decentralised infrastructures (blockchain) for the issuing of certificates and other types of credentials. ☐ Other. Please specify.
Quality	The institution: ☐ has mechanisms to check and validate its open learning qualification awards process. ☐ supports and encourages the branding of its own open education qualifications. ☐ seeks to work in collaboration with other institutions to grant qualifications for open learners. ☐ Other. Please specify.
Leadership	☐ The institution encourages its reputation building in open education by the granting of full qualifications. ☐ Other. Please specify.

Social Recognition	
Strategy	The institution: ☐ seeks to offer non-formal recognition (e.g. badges) to its open education offerings when formal recognition is not appropriate or sought by the learner. ☐ encourages the acceptance of non-accredited certificates and badges as a form of knowledge demonstration whenever a formal certificate is not required. ☐ Other. Please specify.
Technology	☐ The institution offers mechanisms to open learners to build and use a personalised learning environment showing their non-formal learning ecosystem. ☐ Other. Please specify.
Quality	☐ The institution seeks to maintain its reputation through the high quality of its non-formal education offerings and the assessment practices used in such cases. ☐ Other. Please specify.
Leadership	☐ The institution encourages its staff members to award badges and certificates on completion of open education offerings which do not match the criteria for formal recognition of learning outcomes. ☐ Other. Please specify.

CORE DIMENSION 5	
COLLABORATION	
Definition	Collaboration is about removing barriers to education by facilitating the exchange of practices and resources with a view to improving education. By collaborating via open educational practices, universities can move beyond the typical institutional collaboration patterns and engage individuals and communities to build a bridge between informal, non-formal and formal learning. It is an evolving practice which is shaped by individuals according to context, goals, resources and possibilities. It is therefore a concept that must be as dynamic as its practice.
Rationale	Collaboration in open education is about making the removal of barriers to education a reality by creating networks between individuals and institutions. Learners must be empowered to collaborate with each other and with the institution and community in order to produce knowledge, define their unique learning paths and achieve their goals. More specifically, it has to do with any practice or policy that promotes, for example: - agreements to support open educational practices. These can take place at different levels: between individuals (formally or informally), intra-institutionally, inter-institutionally, nationally at policy level or cross-border; - the exchange of knowledge in OER format, free-of-charge content and courses, MOOCs or open access research; - the co-development of OER and free-of-charge content; - the co-development and exchange of open educational practices with respect to pedagogies, learning designs, technologies, guidelines, training, accessibility and usage of repositories; - the empowerment of learners on their lifelong learning paths; - the acceptance and recognition of open education certificates and credits by third party organisations; - the co-development of open, innovative and digital learning environments; - practices that cultivate values of equality, non-discrimination and active citizenship; - respect for socio-cultural differences.
4 components	**Intra-institutional | Inter-institutional | National | Cross-border**
	Intra-institutional collaboration: this type of collaboration takes place within an institution. It may involve different departments and faculties, students, staff members and even the wider community (alumni/ families of students/ local community). It aims to strengthen the open educational practices of the institution as a whole, promote knowledge sharing and management inside the organisation, develop an institutional policy on open education, identify champions, promote training and develop skills, promote the dissemination of an open education culture.

	Inter-institutional collaboration: this type of collaboration takes place between institutions, staff and learners from the same region, country, or network. It aims to strengthen the relationship between these organisations and individuals so that they can share all or any of the following: knowledge, pedagogies, practices, open research, OER and free content. It also aims to develop and maintain technologies, prompt formal recognition of certificates and credits and aid reputation building. **National/Regional collaboration**: This type of collaboration refers to policies and recommendations on open education supported by National Ministries and regional governments. It may involve a given number of institutions working towards achieving a similar goal on open education, set and supported by these policies. **Cross-border collaboration**: This type of collaboration aims to foster the internationalisation of institutions via open education, by increasing their reach and access by students globally. Students in turn will benefit from the contact and sharing with other cultures. This type of collaboration can be set up by mutual agreements or consortia between universities in different countries or regions. It envisages the sharing of content, open research, practices, pedagogies and technologies. It aims to enable a welcoming environment for learners, teachers, managers and researchers to explore knowledge and practice from places other than their own. It also attempts to overcome barriers established by national regulations or common practices with respect to recognition of learning achievements via open learning.

Transversal Dimensions

Descriptors

Intra-institutional collaboration	
Strategy	The institution: ☐ has a strategy on how to collaborate on open education at an institutional level within departments and faculties. ☐ encourages staff members from all departments and faculties to exchange and produce free content and OER, open access research, teaching materials, MOOCs, training in open education in collaboration. ☐ Other. Please specify.
Technology	The institution: ☐ provides and maintains fully operational a repository and/or a learning management system in which staff members can easily share knowledge, OER, free content, open access research, teaching materials, and open educational practices. ☐ encourages staff members to use social media to exchange practices and resources. ☐ encourages departments and faculties to produce/develop/use open technologies in collaboration. ☐ Other. Please specify.
Quality	☐ The institution has a cross-departmental peer-review process for open educational content (OER, free content).

Leadership	☐ Learners are empowered to decide about their studies and learning paths, to share knowledge and content, and to engage with staff members and learning networks.
	The institution:
	☐ has identified open education champions in each department/ faculty.
	☐ encourages staff members from all faculties/departments to participate in an open education committee and supports its ongoing existence.
	☐ values the efforts of individual staff members to engage with open education by setting up a clear structure of rewards (e.g. career progression, training, time allocation, remuneration etc.).
	☐ Other. Please specify.
Interinstitutional collaboration	
Strategy	The institution:
	☐ has a strategy on collaboration with third party institutions to make open education sustainable to all parties involved.
	☐ seeks to work in collaboration with other institutions to grant and recognise qualifications for open learners.
	☐ Other. Please specify.
Technology	The institution:
	☐ shares technologies with other organisations (HEIs, industries, government etc.), which support collaboration in open educational practices.
	☐ builds technologies that support open educational practices in collaboration with other organisations to reduce costs and enhance quality and maintenance procedures.
	☐ Other. Please specify.
Quality	☐ The institution shares a code of practice on quality with other organisations to mutually check and peer-review their open education outputs.
	☐ Other. Please specify.
Leadership	The institution:
	☐ shares policies with other organisations which enable collaboration in open education.
	☐ collaborates with other HEIs and third party organisations to validate and recognise non-formal learning.
	☐ Other. Please specify.
National/Regional collaboration	
Strategy	The institution:
	☐ seeks to collaborate with its National Ministries to promote and support open education initiatives in the country.
	☐ seeks to collaborate with local governments to promote and support open education initiatives regionally.
	☐ has a strategy on open education which includes the collaboration with other institutions across the country, at different levels (e.g. pedagogy, content, technology, access).

	□ seeks to work in collaboration with other institutions to grant and recognise qualifications for open learners.
	□ Other. Please specify.
Technology	□ The institution shares a central national repository with other institutions.
	□ Other. Please specify.
Quality	□ The institution shares a national code of practice with other organisations to control the quality of its open education outputs.
	□ Other. Please specify.
Leadership	The institution:
	□ actively participates in activities to foster opening up education at a national level.
	□ Other. Please specify.
Cross-border collaboration	
Strategy	The institution:
	□ has a strategy on open education which involves the collaboration with organisations abroad.
	□ approaches open education collaboration with institutions abroad as a way to internationalise its practices.
	□ seeks to develop fast-track routes for recognition of non-formal learning from collaborating institutions abroad.
	□ Other. Please specify.
Technology	The institution:
	□ has agreements with organisations abroad in order to use their platforms for open education delivery.
	□ has agreements with organisations abroad to co-develop and maintain technologies for open education.
	□ Other. Please specify.
Quality	□ The institution follows international protocols on quality check f open education provision.
	□ Other. Please specify.
Leadership	□ The institution has a leading international role on open education collaboration.
	□ Other. Please specify.

CORE DIMENSION 6	
RESEARCH	
Definition	Openness in research is about removing barriers to access to data and research outputs, and also about broadening participation in research.
Rationale	Openness in research implies a paradigm shift in the *modus operandi* of research and science which affects the entire scientific process. The underlying idea is to advance science as quickly and as well as possible by sharing and collaborating, rather than trying to publish first in order to secure intellectual property rights. International collaboration, for example, plays an increasingly important role both in improving the competitiveness of research and innovation systems and in fostering new knowledge production worldwide[28]. (Research and Innovation, European Commission, 2016) Researchers can gain from open science activities, both as project participants and as commentators on research ideas and progress, because extended networks provide a larger pool of expertise. Richer data sets are also available to them. (European Commission, background document – Public Consultation, Science 2.0: Science in Transition[29], 2014).
4 components	**Open Access | Open Research Collaboration | Open Data | Citizens' Science**
	Open access is the practice of providing online access to scientific information that is free of charge to the end-user. **Open Research collaboration** is the large–scale, remote collaboration between scientists through the use of internet-based tools similar to open source software collaboration. It can take place regionally, nationally or internationally. **Open data** is data that can be used free of charge, reused and redistributed, subject only to the requirements of its open license. **Citizens' science** is a form of research collaboration in which professional scientists engage with members of the public, who then contribute to the research.

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[28] Open Innovation, Open Science, Open to the World: A Vision for Europe (2016) DG Research and Innovation, European Commission.
[29] https://ec.europa.eu/research/consultations/science-2.0/background.pdf

Transversal Dimensions	
	Descriptors
Strategy	**Open Access**
	The institution: ☐ has open access to research as a component of its open education strategy. ☐ has clear policies on open access publications. ☐ has policies that support and recognise academics who choose to publish in open access journals. ☐ has policies that support and recognise academics who choose to make their research available in open access research repositories. Researchers of the institution: ☐ are aware of the requirements and costs to them and the institution regarding the availability of open access research. ☐ Other. Please specify.
	Open research
	The institution: ☐ has policies to promote and/or reward researchers and lecturers who embrace open research practices. ☐ makes sure that researchers and lecturers are aware of the requirements and costs to them and the institution regarding the open research programmes they support. ☐ Other. Please specify.
	Open data
	The institution: ☐ has clear policies on open data. ☐ ensures that all academic/technical staff members are aware of the institutional policies on open data. ☐ Other. Please specify.
	Citizens 'science
	The institution: ☐ has policies to support and encourage the participation of third parties (e.g. companies, independent researchers) in the research process in various subject areas (e.g. grants, collaboration agreements, access to research labs, unpaid fellowships). ☐ has policies to support and encourage academics to open their research process to the participation of third parties (e.g. grants, merit recognition). ☐ Other. Please specify.

Leadership	**Open access**		
	The institution: ☐ plays a leading national role in publishing open access research. ☐ has identified staff members who are willing to take the lead in creating an open access policy for the institution. ☐ encourages and values research published in open access journals. ☐ Other. Please specify.		
	Open research		
	The institution: ☐ plays a leading role in creating programmes to involve local governments and local enterprises in the production of collaborative, open research. ☐ plays a leading role in open research collaboration with other higher education institutions, interinstitutionally and cross-nationally. ☐ Other. Please specify.		
	Open data		
	☐ The institution has identified staff members who are willing to take the lead on creating an open data policy for the institution. ☐ Other. Please specify.		
	Citizens' science		
	The institution ☐ plays a leading role in opening up its laboratories, archives and data centre to the community. ☐ seeks to engage the community in research processes (e.g. via crowdsourcing, open data, open collaboration). ☐ Other. Please specify.		
Quality	**Open Access**		
	☐ The institution monitors the quality of its research output published in open access journals. ☐ Other. Please specify.		
	Open Research		
	The institution: ☐ applies quality monitoring procedures for its open research processes and initiatives. ☐ rewards staff members who comply with quality monitoring measures for their open research initiatives. ☐ Other. Please specify.		

	Open data	
	☐ The institution ensures that the purpose for which the data is made available, the conditions of data collection, and all other details that one may need to reuse the data, are fully described. ☐ Other. Please specify.	
	Citizen's science	
	☐ The institution ensures that a quality monitoring mechanism for citizens' science is put in place. It should focus on five components: efficacy, impact, availability, accuracy and excellence[30]. ☐ Other. Please specify.	
Technology	**Open access**	
	The institution: ☐ has its own research repository with an open access policy. ☐ encourages the use of open standards for the production of content. ☐ rewards staff members who are part of collaboration groups on technologies for open educational practices (e.g. open source communities' of developers, think tanks). ☐ Other. Please specify.	
	Open research collaboration	
	The institution: ☐ allows the use of its technology for research (e.g. laboratories and equipment) by third parties. ☐ rewards staff members who develop new technologies which support open educational practices. ☐ Other. Please specify.	
	Open data	
	The institution: ☐ seeks to be engaged with specific communities of practice which have /develop technologies for open data. ☐ has leading technology on open data (repositories, standards etc.). ☐ Other. Please specify.	
	Citizen's science	
	☐ The institution makes use of social media to seek the participation of individuals in its research. ☐ Other. Please specify.	

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[30] These components are fully described in the Quality Dimension.

TRANSVERSAL DIMENSION 7	
STRATEGY	
Definition	Strategy in open education is the creation of a unique and valuable position on openness involving different sets of activities.
Rationale	Openness is a vital component of an institution's policy. It is integral to the institution's mission and its relationship to and inter-dependence with other aspects of the wider institutional policy should be clearly articulated. Including openness in an institution's education strategy can enhance and enrich the conceptual, operational and financial aspects of the educational offer.
2 components	**Integrated Institutional Policy | Funding**
	➢ **Integrated institutional Policy** Including openness within an institution's education strategy can enhance and enrich the conceptual, operational and financial aspects of the educational offer. The open education strategy and the institution's overall strategy should not be treated as separate, but instead it should form a unique educational strategy for the institution. This means that a current institutional strategy may need to be revised to operate from openness. HEIs activities such as research, teaching and learning, and community services could all benefit from open practices. ➢ **Funding** In making opening up education an integral part of the institution's mission and goals, HEIs will also need to have a strategy on how to make these activities financially sustainable throughout their duration and deliver, where appropriate, return on the investment. The latter can be direct (e.g. revenue by commercialising specific parts of the open education offer to specific types of audiences, such as assessment or credentials, or more registrations for paid-for courses) or indirect (e.g. increased reputation and enhanced internationalisation). HEIs can explore internal funding to be used to consolidate the institution's strategy which includes openness, and/or explore how external funding, from governments or other bodies, can help them achieve their opening-up education goals.

Strategy and its relationship with the other transversal dimensions	**Technology:** in open education, strategies and technology are interrelated and depend on each other in the institution's action plan for an open education initiative. Technologies can be selected according to the open education strategies the institution has chosen to adopt (e.g. open standards for software, use of social media to deliver content and engage with different audiences, open repositories for research outputs). **Quality** – the quality[31] (excellence) of the open education practice and resources of the institution are determined by a series of criteria set by the university and/or according to the recommendations of external bodies (e.g. ENQA, EADTU, etc.). **Leadership** – The promotion of open education at an institutional level is led by champions from the following groups: ✓ *Institution's executives.* ✓ *Institution's staff members (lecturers, researchers, technicians, administrators).* ✓ *Institution's learners (registered learners and open learners).*

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[31] See the 'quality' transversal dimension for details.

TRANSVERSAL DIMENSION 8	
TECHNOLOGY	
Definition	Technology in open education refers to technological infrastructures and software which facilitate opening up education in its different dimensions.
Rationale	Technology is a necessary part of open education. Technological infrastructures and software, either open or closed, work as transversal enablers of the different dimensions.
	Technology use varies from one dimension to another and its different descriptors are incorporated in the template of the core dimensions. Thus, access can be enhanced by improving the infrastructures (devices and connexions) and by using virtual learning environments (VLE), MOOC and free/open online course platforms and supportive technologies. The openness of content (courses and programmes) can be enhanced via technology, e.g. by using institutional repositories, appropriate standards and metadata. Pedagogy can benefit from the use of social networks, web 2.0 (or plus), OER and technologies that allow teachers to monitor learners' behaviour and encourage and support personalised learning (e.g. via learning analytics).
	Technological solutions play an important role in validating the identity of people being assessed for the recognition of non-formal learning (e.g. biometrics and proctoring), in making it easier to scale up assessment (test, peer to peer assessment tools and automated essay assessment) and in granting digital badges.
	Collaboration can also be enhanced via technology. For example, social media can be used to disseminate open education initiatives and facilitate communication with external stakeholders (companies, local community), involving them in the educational process. The design of common digital courses and infrastructures for open education (e.g. repositories, MOOC and free/open online course platforms) is dependent upon technology and also the easy sharing of free content and OER.
	Technological choices have a direct impact on how open education is configured. Consequently, institutions should consider technology when planning their strategies in order to align them and their priorities on open education with the ICT investment they make.
	The degree to which the technology used by an institution is open or not reflects its openness culture. Institutions which are committed to the greatest possible level of openness will opt for open standards and open source technologies which are interoperable with other platforms. They will also build or use platforms which allow learners to interact with one another, upload and share content, download, peer-review and modify existing content.
	Open education today is not always implemented by using open source software. However, its use has added value. Open source software solutions can make personalization possible by adapting previous developments of technological solutions to specific institutional needs. In addition, openness in technology eliminates barriers to inter- and intra-institutional collaboration in the development of technological solutions for open education.

4 components	**Software and Platforms| Maintenance and development | Training | Vision and audience**
	➢ **Software and platforms** – To a certain extent, the affordances of the technology set the boundaries of what can and cannot be done in open education. For example, the commitment to certain commercial (or non-commercial) platforms for the offer of MOOCs and free/open online courses may mean that the institution has to adhere to certain business models. On the other hand, it makes it possible to reach global audiences more easily, due to the findability that these platforms provide. Another example is the tools that particular software may provide to learners and how customisable and interoperable it is. All these factors shape the learning experience and the institution's engagement with open education in different ways. A decision on software and platforms must be an integral part of the strategy of the institution. ➢ **Maintenance and development** – Content repositories, courses and programmes need to be within their lifecycle to be meaningful to the open learner and have a positive impact on the institution's reputation in open education. When designing a strategy for open education, periodic updating of the open education offer needs to be planned. In addition, open education provides possibilities for technology sharing and the development of new tools and systems, such as personalised learning environments. ➢ **Training** – New technologies often require user training. It is essential that staff training in the use of technologies be included in the institution's open education roadmap. ➢ **Institutional Vision and Audience**- The choice of technology for open education is also largely dependent on the initiative's target audience and the institution's vision in relation to open education. For example, technologies adapted to mobile learning or content shared on platforms which allow remixing may appeal to different audiences (e.g. teachers and open learners on the go). The institution's vision for open education must be related to its mission. The choice of technology must be aligned with the institution's open education vision, because technology shapes audience appeal.
Technology and its relationship with the other transversal dimensions	➢ *Strategy*– the planned use of technology as an enabler is an essential part of the institution's strategy or business model for open education. The institution may decide that its open education offer (MOOCs, free/open online courses, OER, research) will rely on the technologies it already uses, be they open source or not. The institution may also decide to build a technological plan for openness, using not only its existing technologies (open or closed) but also sharing, customising, or designing and building new technologies. Technological choices and strategies in open education are closely related to one another. A strategic implementation plan can maximise the technology potential to create new operating mechanisms and business models. Technology in open education is used to enhance *pedagogy*, produce, modify and share *content*, assess learning to enable formal *recognition*, increase access (flexibility of time and space) and accessibility and support *collaboration* between different institutions. Within the scope of the core dimensions, there can be different foci on technology implementation, enabling a range of strategies and business models.

	➢ **Quality** – Technological quality in open education has to do with the reliability of the system used and its readiness to support different types of users (e.g. versions, accessibility). It also has to do with the promotion of user-friendly platforms that focus on the user experience.
	➢ **Leadership** – Since technology is a key enabler for open education, institutions may decide to have it at the centre of their open education strategies by playing pioneering / leading roles in technology development for open education.

TRANSVERSAL DIMENSION 9	
QUALITY	
Definition	Quality in open education refers to the convergence of the 5 concepts of quality (efficacy, impact, availability, accuracy and excellence) with an institution's open education offer and opportunities.
Rationale	In relation to an institution's open education offer, the higher the confluence of these 5 concepts of quality (efficacy, impact, availability, accuracy and excellence) the more reliable and trustworthy this offer will be for open learners: • *Efficacy*: fitness for purpose of the object, concept being assessed. • *Impact*: is a measure of the extent to which an object or concept proves effective. It is dependent on the nature of the object /concept itself, the context in which it is applied and the use to which it is put by the user. • *Availability*: this is a pre-condition for efficacy and impact to be achieved, and thus also forms part of the element of quality. In this sense, availability includes concepts such as transparency and ease-of-access. • *Accuracy*: is a measure of precision and absence of errors, of a particular process or object. • *Excellence*: it compares the quality of an object or concept to its peers, and to its quality-potential (e.g. the maximum theoretical quality potential it can reach) (Source: JRC IPTS report, 2014)[32]. The degree of quality of an open education offer/opportunity can be measured by different actors, such as the institution itself, its learners or the State. The latter measures the compliance with a given country's legislation and recommendations of the object being offered (e.g. a course, a certificate, a degree). It can also be measured against the standards of a competent body which can issue credentials, such as a quality assurance agency or an association/community recognised by its members. The granularity in which quality is measured in open education may also vary, ranging from an institution's overall reputation to the quality of a particular offer such as an OER. In general, quality standards in open education should seek to comply with the European Standards and Guidelines for Quality Assurance in Higher Education[33], which have been divided in three parts: internal quality assurance, external quality assurance and quality assurance agencies. The term quality assurance means all activities within the continuous improvement cycle (e.g. assurance and enhancement activities) (ESG, 2015)[34]

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[32] Camilleri, A., Ehlers, U.D., Palowski, J. (2014) State of the Art Review of Quality Issues related to Open Educational Resources. JRC Scientific and Policy Reports, IPTS, Luxembourg: Publications Office of the European Union.

[33] http://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf

[34] Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) (2015), Brussels, Belgium.

	Quality in open education also relates to the environment and conditions in which an open education culture is built in an institution. Staff members involved in producing and supporting OE often require time and deserve incentives. An institution which identifies these needs, recognises them as fair and acts responsibly towards them is respecting a fundamental principle of excellence which is the promotion of the best conditions for individuals to tap into their greatness.
3 components	**Quality of open education offer | Quality of institutional support to staff |Quality of services to open learners**
	➢ **Quality of open education offer/opportunities** refers to the degree of confluence of the 5 concepts of quality applied to content (OER and free-of-charge content), courses, programmes, teaching methods and technologies. It also refers to quality of metadata, transferability and adaptability of teaching and learning resources. It is important that universities continuously improve their systems of production and service. ➢ **Quality of institutional support to staff** is related to the existence of an open education policy at the institution, which caters for the allocation of appropriate time and remuneration to staff members (e.g. lecturers, researchers, librarians) to design, modify and use OER and when applicable, free content . It has also has to do with incentives and continuous professional development (CPD) opportunities. ➢ **Quality of services to open learners is** related to the variety and excellence of the services provided to open learners, such as technologies, student support, tutoring, pathway guidance, issuing of certificates and recognition of non-formal learning.
Quality and its relationship with the other transversal dimensions	➢ **Strategy** –quality management approaches applied to the monitoring of the implementation of an institution's strategic plan for open education. ➢ **Technology** – Reliability of the technology. The use of international standards for course material production and availability/sharing. The user-friendliness of web resources and learning environments for open learners. ➢ **Leadership** – Leadership for quality is an important criterion in an open education strategy. Open education champions and the institution's executives must check the quality criterion against their main decisions and actions to ensure that the institution's reputation is being kept and enhanced. The goal is to provide the open learner with the best learning experience possible.

TRANSVERSAL DIMENSION 10

LEADERSHIP	
Definition	Leadership in open education is the promotion of sustainable open education activities and initiatives via a transparent approach from both the top-down and the bottom-up. Leadership paves the way to creating more openness by inspiring and empowering people.
Rationale	Leadership in open education goes beyond the creation of strategies decided at the executive level. It is above all the identification of champions at all levels, who will take the lead in the different strands of open education in the institution. It is a transversal dimension because it supports open education practices at different levels: personal motivation, task organisation and outcomes management. Leadership in open education should promote open education take up across the university by a whole range of stakeholders, including learners.
4 components	**Institution's stakeholders | Staff members | Learners | Community**
	➢ **Institution's stakeholders** are members of the management team of a HE institution. The approval of an institution's open education policy or guidelines/roadmap, for example, would be the responsibility of these individuals. The Institution's executives have the power to support an open education culture and to decide on the best course of action to achieve desired goals. Their actions should ideally be aligned with those of staff members. ➢ **Staff members** can be advocates or champions of open education at the institutional level. They will design or put into practice the strategies planned. They should also be part of the decision-making process to enhance their sense of ownership of the OE strategy. They are key players for the success of the strategy. ➢ **Learners** in open education take increasing responsibility for their own learning pathways. They are the leaders of their own learning processes and achievements. Learners can also be authors and co-authors of open educational material. They may share their experiences digitally and via the social web. They may support and assess each other's work via peer-to-peer activities. ➢ **The community** related to the HE institution (e.g. family of learners, neighbours, institutional partners etc.) also benefit from the open educational practices of the institution. At the same time, the community can also collaborate and share their knowledge openly via the institution (e.g. collaboration with local businesses, events, employers and learners).

Leadership and its relationship with the other transversal dimensions	➢ **_Strategy_**: Leadership for strategy and business models is measured against the involvement of different champions in the promotion of open education at an institutional level:
	   ✓ *Institution's executives,*
	   ✓ *Institution's staff members (lecturers, researchers, technicians, administrators),*
	   ✓ *Institution's learners (registered learners and open learners).*
	
	➢ **Technology**: Since open education is highly dependent upon technology, it is important that the institution finds champions on the technological front. This will ensure not only the development of a strategy on (open) technologies for open education and support for it, but also commitment to designing and testing new technologies/uses for technology that can enhance the institution's open education offer and the learner's experience.
	
	➢ **Quality**: Leadership for quality has to do with the individual's commitment to quality control of the institution's open education offer and with the various champions' efforts across the institution to promote quality as a value. Overall, the quality of an institution's open education offer affects its reliability and reputation, therefore leadership for quality is an essential part of an open education strategy.

ANNEX II – Strategic Planning Template for Opening up Education

Date:

(optional worksheet be used alongside the OpenEdu framework)

This template provides questions to think through while using the framework. The goal is to achieve a relatively short document [e.g. 10 pages] which is an easy read for your target audience. Ideally, it should be designed to be an integral part of your institution's main mission and education strategy, in order to promote openness as a value that is intrinsic to the institution's overall organisation. Complementary documents can be designed whenever necessary and linked to it. Also, please consider making the strategic plan on opening up education available online on your university's website, visible to all interested parties (the public in general, open learners, staff members, etc.), and explain how it is embedded in the institution's overall mission. Transparency is part of the open education ethos and if the strategic plan has an appropriate open licence, it could even be reused/adapted by other institutions, which will reference your planning.

Section 1: Background

1.1 HE institution information

Name, full address, status (public, private, etc.) rector/president, main website, contact.

1.1.2 Audience of the strategic plan

You/your team may want to say something like:

"This strategic plan on opening education for [higher education institution's name] has been developed by [XYZ group] in order to provide an institutional approach to [all faculties, staff members, external actors] on the development of specific initiatives for opening up education and their related policies. This planning is an official part (chapter, etc.) of the overall institutional planning and is aligned with the institution's mission.

1.2 Introduction

It is useful for anyone reading your strategic plan to provide some background information on the institution (size, main audience, private/publicly-funded, main achievements).

In this section, the institution's vision, mission and values can be explained. Then, the institutional perspective on open education (what it is, why it is a priority/not a priority at the institution, how it fits/does not fit with the institution's mission statement.)

Next, the current status of open education practices in the institution may also be presented, alongside a plan for non-formal learning recognition and incentives for staff.

Section 2: Planning

2.1 Institutional vision on open education

This is a short statement, carefully constructed, which will communicate to others what you want to achieve.

2.1.1 Major goals

In this section, you may want to describe how open education will be dealt with in your institution: i.e. what the main goals, the rationale and timeframe are. You may choose to distribute a number of these planning templates to appropriate staff members in order to identify main goals and specific objectives in the institution. Alternatively, you may see value in creating working groups and have them address a specific set of goals and objectives –checking how they relate to the dimensions of open education of the framework. Finally, consider merging the documents into one single institutional strategic plan.

2.1.2 Specific objectives on open education

Here you may describe specifically how the major goals will be achieved. What types of open education initiatives will you support/create/collaborate with? How will they be supported (staff/faculties, funding, external collaborators)? How open will your institution be about open licenses, reuse and sharing policies, etc.?

2.2 Dimensions of open education and rationale

What are the dimensions in your planning and why? How do they interplay? Are you taking a progressive approach (starting with fewer dimensions and aiming to include all in the future) or not? Why? Which descriptors from each dimension of the framework will your institution support and how?

2.2.1 Approach to recognition of open education

This is an aspect that you may want to emphasise and make clear to all staff and open learners. Presenting the institutional perspective on recognition of non-formal learning will help staff members to develop appropriate courses/programmes/projects. It will help open learners to understand the institution's position on recognition, enabling them to make informed decisions.

2.2.1.1 Desirable traffic light model for open education offers

You may wish to refer to OpenCred's traffic light model to guide your staff members and open learners on the types of recognition of non-formal learning provided by your institution. The traffic light model is a visual tool that can be displayed on courses, websites, etc., which can aid transparency in your recognition policies.

2.3 SWOT analysis (strengths, weaknesses, opportunities, threats)

You may wish to use some of the OpenEdu descriptors here, adapted as needed, to help you describe the strengths of your institution on open education (e.g. the institution is a strong player in online learning), weaknesses, opportunities and possible threats related to opening up education. A contingency plan may also be presented.

2.4   GANTT Chart

This is an important part of your strategic plan since it offers a trackable visual schedule for the achievement of goals and specific objectives, and makes it possible to break them down into work packages.

You may need to identify who the open education champions are/could be at the institution. This group will be assigned tasks and accountability. These champions can also be learners. Consider how they could be encouraged to feel ownership of at least parts of the strategic plan. This will make them more committed and they will achieve better results. The Leadership dimension of the OpenEdu framework may be helpful in designing this section of the strategic plan.

Section 4: EVALUATION

Your institution's performance against all the goals and objectives set in the strategic planning should be rigorously evaluated. This will help to redefine goals whenever necessary and also in the design of a revised plan for a further time period.

4.1   Formative

How often will the initial (formative) evaluation occur? Who is its audience? Which criteria will be used? What will you do with the information you gather from this formative evaluation?

4.2   Summative

Against which criteria will the final (summative) evaluation occur? Who is its audience? To what extent have your annual reports and operational plan addressed the open education strategic plan? How can you use the data gathered when completing the summative evaluation to inform the next round of strategic planning? Consider making the results of the evaluation available to all.

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Gender, Education and Population Flows

Summary report on knowledge, cross-Nordic experiences and examples from practice

Gender, Education and Population Flows

Summary report on knowledge, cross-Nordic experiences and examples from practice

Kathrine Bjerg Bennike, Stine Thidemann Faber and Helene Pristed Nielsen

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Résumé – UK

During the Danish Presidency for the Nordic Council of Ministers in 2015, attention was drawn towards challenges and best practice examples in relation to gender, education and population flows in peripheral areas throughout the Nordic countries – Norway, Denmark, Sweden, Finland, Iceland and the autonomous countries, Greenland, the Faroe Islands and Aaland. This report briefly summarises the findings covered in existing Nordic research and literature within the field, and further presents the experience and professional responses, which were presented during a knowledge-sharing seminar for different stakeholders across the Nordic countries. Thus, the report provides a condensed presentation of the knowledge available within the field, while also providing a more practical source of inspiration for policymakers, other authorities and actors with respect to future actions in this area – locally, regionally, nationally and across the Nordic region.

1. Background for the report

During the Danish Presidency for the Nordic Council of Ministers in 2015, attention was drawn towards challenges and best practice examples in relation to gender, education and population flows in peripheral areas throughout the Nordic countries – Norway, Denmark, Sweden, Finland, Iceland and the autonomous countries, Greenland, the Faroe Islands and Åland.

As part of this, a report including existing research and literature in the field was produced along with an inter-Nordic seminar held on 17 June 2015 in Nuuk, Greenland. Attending the seminar was a number of political actors, government officials and representatives from various Nordic educations and professional organisations. In the preparation of the report and the planning of the seminar, a wide range of Nordic researchers and other players in the field were contacted to uncover knowledge and experiences from the different countries.

The decision to focus on gender, education and population flows has been motivated by the fact that the Nordic region's peripheral areas are all characterized by a number of similar challenges; challenges which include changing living conditions, stagnant or negative economic growth, low growth, decline in the number of jobs (especially in traditional male occupations) and not least depopulation and out-migration (especially among women in peripheral areas). These challenges are of great importance for the people living in peripheral areas, and also for the long-term viability of the areas and their cohesion (Faber, Pristed Nielsen & Bennike 2015). As part of writing the main report and at the seminar in Nuuk, it was confirmed that the above mentioned challenges have the attention of numerous stakeholders throughout the Nordic countries. A fact which stresses that common dialogue and exchange of experience across the Nordic countries is conducive to meeting these challenges.

The present report summarises the findings and conclusions which are covered in the existing Nordic research and literature within the field, as well as the experience and professional responses, which were presented during the course of the common dialogue and exchange of experience facilitated by the Nordic Council of Ministers in 2015. The idea is that this report will provide a condensed presentation of the knowledge available within the field, while providing a more practical source of inspiration for

policymakers, other authorities and actors (e.g. in the municipal admin-
istrations, educational institutions, workplaces, among interest organisa-
tions, trade unions, etc.) with respect to future actions in this area – locally,
regionally, nationally and across the Nordic region. For those who want to
gain a broader introduction to research and literature in the field, and a
deeper knowledge of the underlying issues surrounding gender, education
and population flows, we kindly refer to the main report.[1]

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[1] The main report on research and literature on the field was written by Centre for Equality, Diversity and
Gender (EDGE) at Aalborg University and was conducted in the period January 2015 to May 2015. The report
is available in both Danish and English. Both reports can be downloaded online:
Danish version: "Sted, (U)lighed og Køn – En kortlægning af udfordringer og best practices i relation til køn,
uddannelse og befolkningsstrømme i Nordens yderområder" (2015):
Available here: https://www.divaportal.org/smash/get/diva2:840467/FULLTEXT01.pdf
English version: "Place, (In)Equality and Gender – A Mapping of Challenges and Best Practices in Relation to
Gender, Education and Population Flows in Nordic Peripheral Areas" (2015):
Available here: http://norden.diva-portal.org/smash/get/diva2:840484/FULLTEXT01.pdf

2. Facts and figures on gender, education and population flows

This section provides a brief overview of the main differences and similarities between the Nordic countries based on facts and figures about gender, education and population flows across the Nordic region.

The overview is mainly based on figures and information from Nordregio (Nordic Centre for Spatial Development), who among other things produces statistical overviews of the Nordic region's peripheral areas. Nordregio has compiled and published a series of maps, which for example show net-migration and the out-migration in the periphery by gender, and depicts education trends in the Nordic region. These maps – several of which are reproduced on the following pages – provide a visual overview of the situation in the Nordic region's peripheral areas, and they portray some of the specific geographic challenges.

The maps also illustrate that there is a very concentrated and more or less uniform trend in all the Nordic countries, and thus illustrate clearly the challenges which the Nordic countries are facing when it comes to population flows and gendered trends in the peripheral areas.

Did you know that...

- The Nordic countries are facing a number of the same challenges, *concerning gender, education and population flows* in the peripheral areas.
- There is a connection between a *local area's size and its gender composition*: a small community will often have a deficit of women compared to the number of men.
- Even though both men and women are *moving towards the larger cities*, the trend is more significant among women.
- The development tendencies in the Nordic peripheries contain *a strong gender dimension*, which is often overlooked.

Source: Faber, Pristed Nielsen & Bennike 2015.

In relation to population density and moving patterns, *map nr. 1* shows that the tendency of depopulation in peripheral areas is repeated in all the Nordic countries. The dark blue colour on the map illustrates the population growth in major cities and urban areas, while peripheral areas are characterized by the grey colour; signifying population decline. Thus, the map shows "growth areas", where the increase of the population corresponds to about 80% of the total increase in the last ten years. In relation to Denmark, Finland and Sweden, two-three growth areas can be located, while there are several growth areas in Norway. However, about 90% of population growth Iceland is located around Reykjavik.

Figure 1: The map shows population change in the Nordic Region in the period 2003–2013
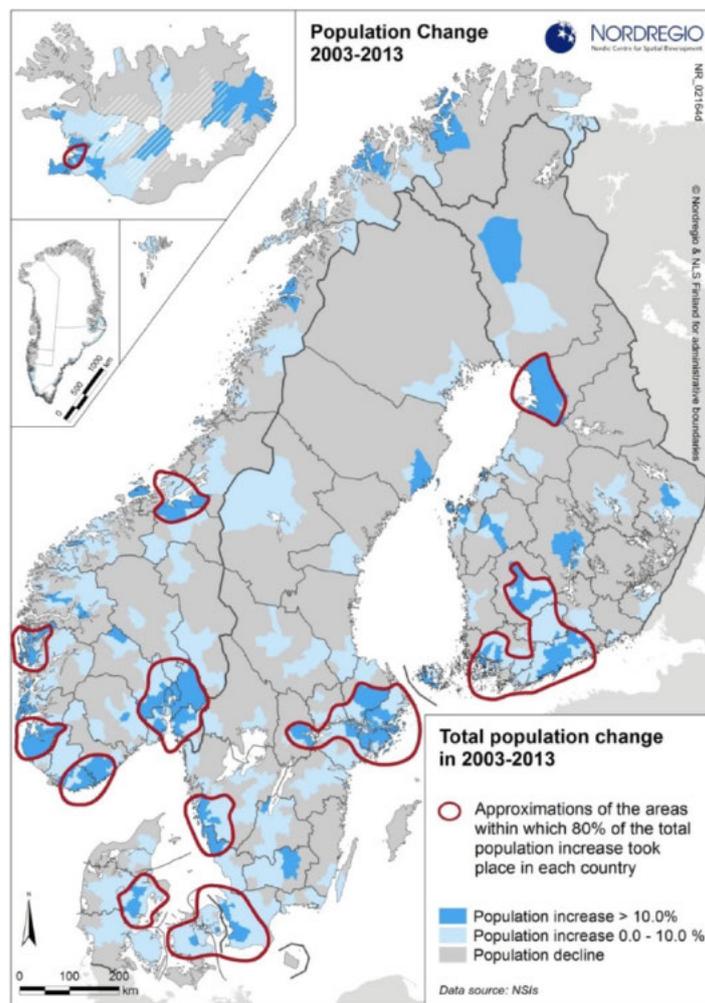
Source: NordRegio 2014.

Design   Johanna Roto.

Map nr. 2 (next page) shows the number of higher educational institutions per municipality (size of circles – the bigger the circle, the higher number of educational institutions), the proportion of the population with tertiary education per region (yellow shade – the darker shade, the higher the level of education), and the proportion of women with higher education per municipality in which a higher education is located (the colour in the circles – the more red a circle, the higher the proportion of women). Compared to municipalities hosting higher education institutions, the map shows that the proportion of women with higher education tend to be higher in metropolitan areas and in major cities, which visually captures that women in the North largely are moving from peripheral areas and into the cities. Conversely, it is observed that the municipalities that only have a single educational institution located away from the major cities generally have more men with higher education. Hence, there appears to be a synergistic effect, whereby not only the location of a single institution, but also that more educational institutions are placed near each other affects the gender composition of the municipality.

The underlying explanation is probably that the rate of urbanization (i.e. the larger a city) affects both the number of women *and* the number of educational institutions positively. In Iceland, Greenland and the Faroe Islands, all municipalities with higher numbers of educational institutions have a majority of men with higher educations. Based on conclusions from the main report and the seminar, there is a tendency (which the map also illustrates) that men, if there are educational opportunities within the region, are making use of these, whereas women often move to the larger cities to enrol in a higher education (for the latter three countries it applies that mainly women are moving to other countries in the Nordic region to obtain an education) (see e.g. Haagensen 2014 and Rafnsdóttir 2010). In relation to education in Iceland, Greenland and the Faroe Islands, an additional factor in the gender distribution can be explained by the fact that a large part of the educational institutions focus on maritime training and education, which often attracts more men than women.

Figure 2: The map shows the number of higher educational institutions per municipality, the share of population with a higher education per region, and the share of women with a higher education per municipality institution is present
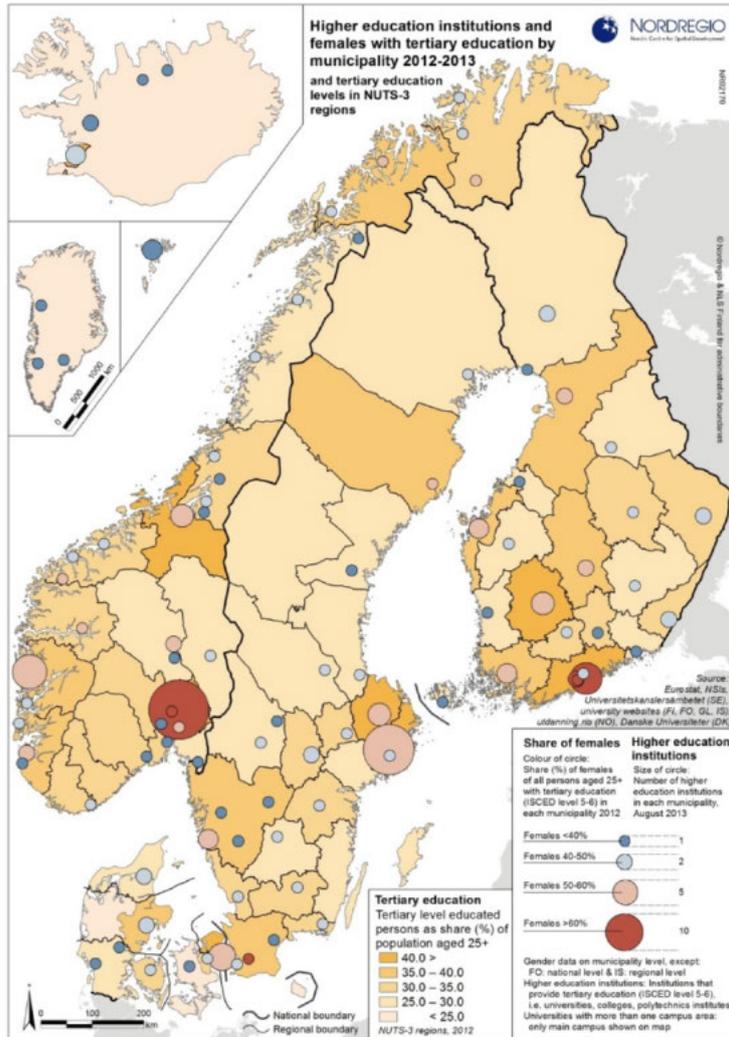
Source: NordRegio 2014.

Design Linus Rispling.

When looking at the population flows in peripheral areas in the form of in-and-out-migration, *maps 3 and 4* illustrate that there is a clear tendency for young people across the Nordic countries to move from the peripheral areas (*map 3*), and that very few families with small children migrate to these areas, which causes the peripheral areas to gradually depopulate and thereby also experience an increase in the general population age (*map 4*).

Figure 3: The map shows out-migration in the Nordic Region in the period 2006-2010
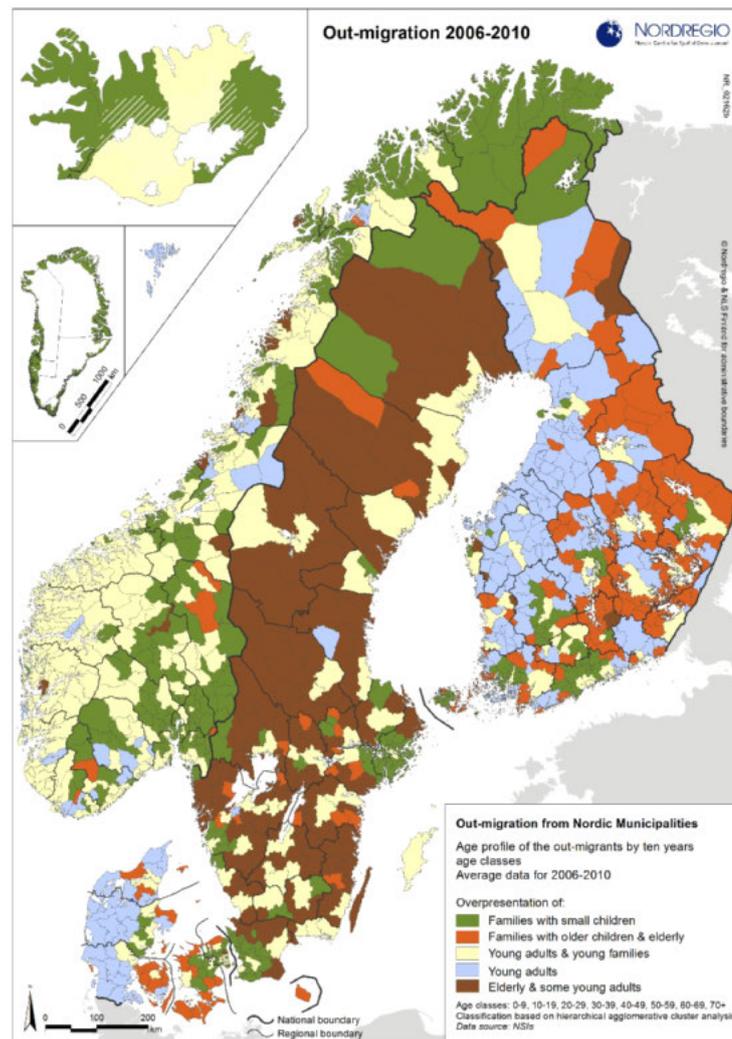
Source: NordRegio 2014.

Design   Johanna Roto.

Figure 4: The map shows in-migration in the Nordic Region in the period 2006-2010
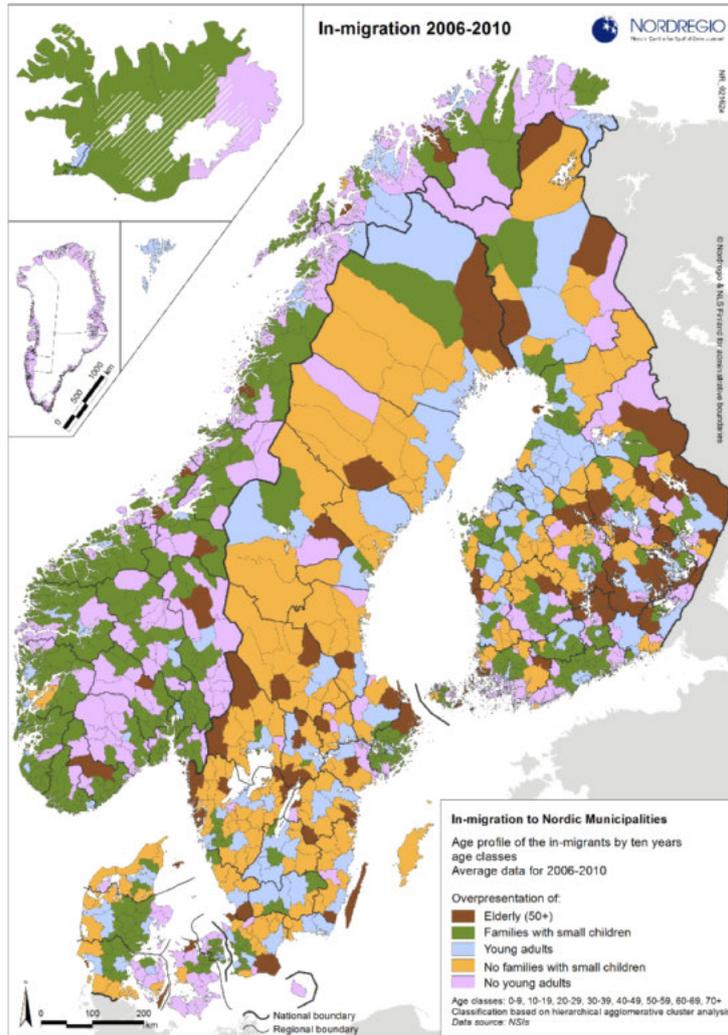
Source: NordRegio 2014.

Design   Johanna Roto.

Map 5 show that migration patterns among men and women are the same, but that the intensity of women who move from peripheral areas is higher, and that this is a trend, which is repeated in all the Nordic countries. On both maps, the red colours indicate depopulation tendencies, while the blue colour marks the population growth, and the yellowish areas have a more or less stable population size. As mentioned, the general trends are the same for both men and women, as evidenced by the colours of on the maps.

Figure 5: The map shows the net-migration for men in the period of 209-2011
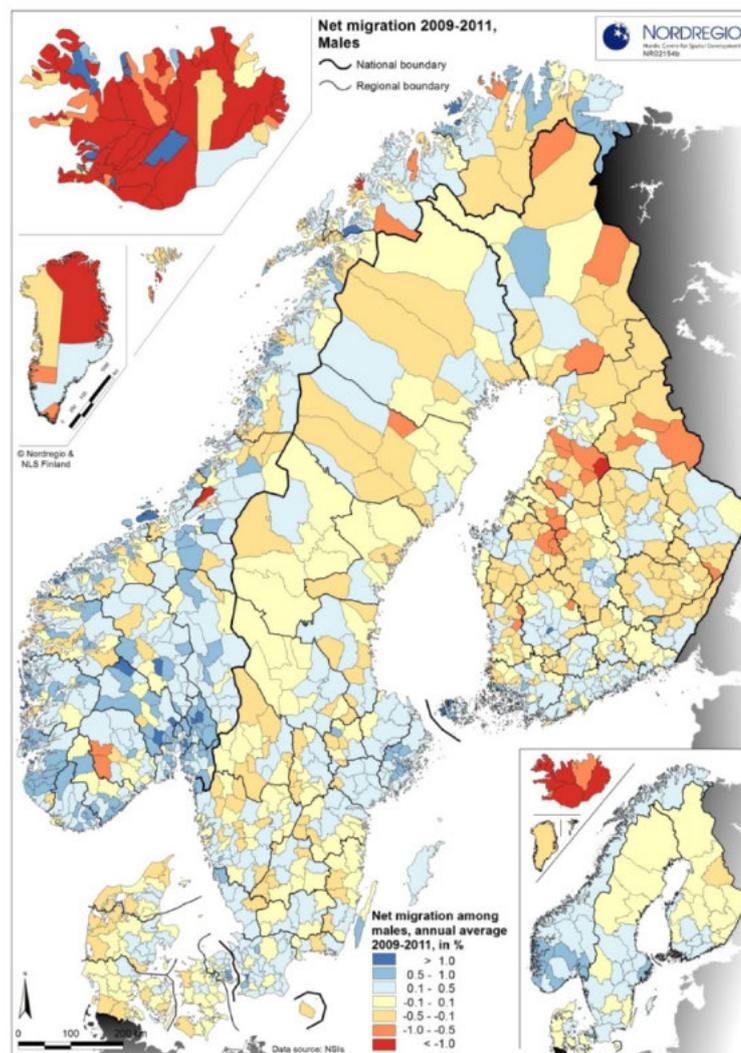
Source: NordRegio 2014.

Design   Johanna Roto.

Map 6 the darkest colours dominate: the dark red colour (i.e. depopulation) and the dark blue colour (i.e. population growth) – in other words, the overall picture of the Nordic women's migration patterns are more extreme than the pattern seen among men in *map 5* where the colours are overall more douched. As an example, the largest net-migration among women in Denmark is to Copenhagen and Aarhus (the second largest city in Denmark), respectively. The overall result across the Nordic region is a predominance of women in the cities and a majority of men in peripheral areas.

Figure 6: The map shows net-migration for women in the period 2009-2011
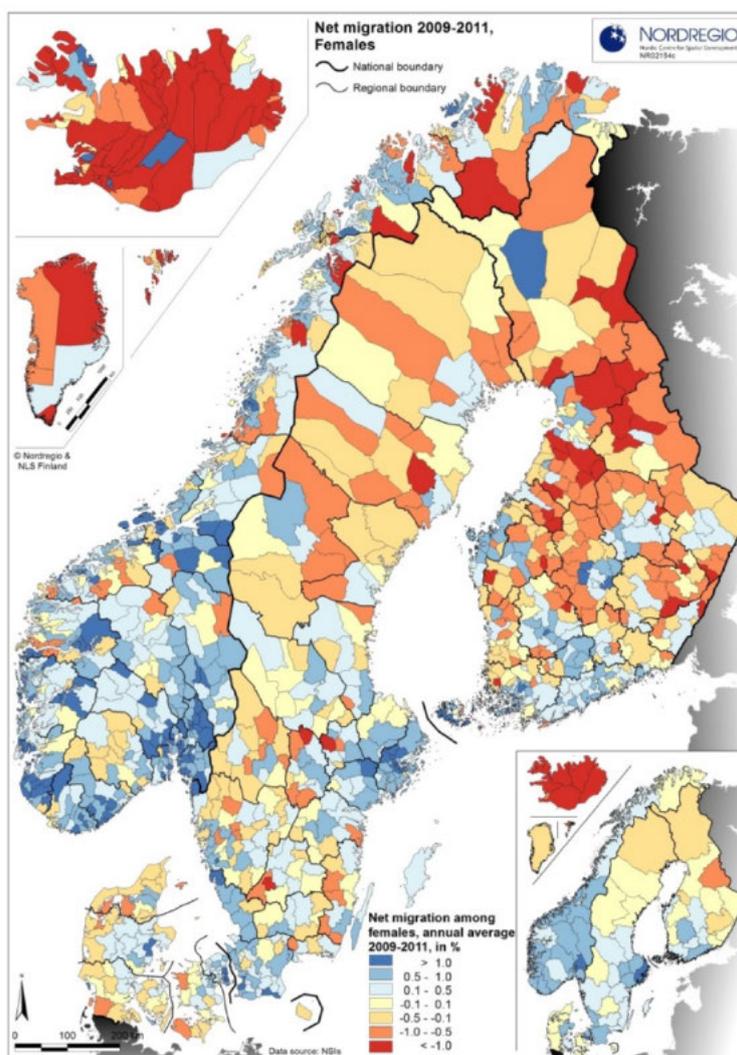
Source: NordRegio 2014.

Design   Johanna Roto.

As seen above, the trends are similar across the Nordic countries, but particularly pronounced in the West Nordic Countries (Greenland, Faroe Islands and Iceland) (see e.g. Rafnsdóttir 2010). Highly detailed studies have been carried out in Greenland, not only in relation to the actual population flows, but also the reasons for moving (see e.g. Rasmussen 2010). The Greenland Mobility Study confirmed that there are significant gendered differences behind the reasons for wanting to migrate. Women indicated that they wanted to move to gain better access to education, to get access to more culture and leisure activities and to get away from social control in the smaller communities and provide increased opportunities for their children. The study showed that men in Greenland, in contrast, are more motivated by opportunities in the labour market. A reason for Greenlandic men to choose to move could be that they feel that there are better and more business opportunities for them and/or their partner elsewhere. Common for respondents from both sexes in the Mobility Study was that they wanted to reside in an area where the wages are higher, with increased opportunities for public transportation and a variety of other public benefits, for example, health and education facilities (Rasmussen 2010).

3. Why is it important to include considerations of gender and equal treatment?

The main report, which included research and literature in the field, underlined that it is important to include a gender perspective if you want to understand the trends that characterise the Nordic region's peripheral areas. This is underlined by the facts and figures which were illustrated in the different maps above.

In some respects, it is not a new problem that women in peripheral areas in the Nordic region are moving towards the cities; actually research from the past 100 years points to this issue.[2] The recent global trends, however, have contributed to the negative trends intensifying, which has given rise to concepts such "flight of women" and "female deficit". At the same time, research and public debates have recently focused on *the men who remain in the periphery*. Here, it has for example been argued that the restructuring of labour markets in the periphery (and a marked decline in the number of so-called "male occupations") have put the more traditional forms of masculinity under pressure (Faber, Pristed Nielsen & Bennike 2015) (see also Baagøe Nielsen 2011 and Gaini 2006).

The common challenges, which the peripheral areas face are a result of structural, economic and socio-cultural changes. The challenges include changes in local business traditions and changing educational patterns in peripheral areas, challenges concerning transport, social infrastructure, local attachment or lack thereof, labour market segregation and gender-segregated education choices, change of recruitment patterns in different sectors of the labour market, and so on. These are all challenges, which should not and cannot be analysed nor solved without including a gender perspective (Faber, Pristed Nielsen & Bennike 2015).

The development in the peripheral areas must be seen and understood in relation to the notion that places can be "gendered", as research within the field indicates. The point is that the places where men and

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[2] See Ravenstein 1885 for original observation, but also for example Bjarnason and Thorlindsson 2006, and Giskeødegård and Grimsrud 2014 for contemporary perspectives.

women live, and the spheres they move in (e.g. in the family, in educational institutions, the workplace, etc.), all are rooted in specific geographical locations which are embedded with different meanings and notions of what is considered socially acceptable. By extension, we can talk about the geographical locations being part of defining the possibilities that exist, including the degree of individual space of action that men and women experience (Faber, Pristed Nielsen & Bennike 2015) (see also Dahlström 1996; Stenbacka 2011; Rafnsdóttir 2010).

As this report illustrates, it is import when addressing the challenges of the Nordic region's peripheral areas to focus on integrating gender and equality perspectives at all levels – national, regional, municipal and local. This is already to some extent part of the work carried out in the Nordic countries by focusing on gender mainstreaming (or "equality assessment", which is the Danish name). However, Rönnblom (2005) highlights in her analysis of gender mainstreaming efforts in Sweden and Norway that gender and equal treatment not always are thought of as an integral element of the regional/municipal development efforts. She finds that gender equality in this effort almost exclusively is considered as something related to women and not *both women and men*, which means that a number of gender issues are often analysed and addressed too narrowly, for example in relation to educational measures, employment initiatives, traffic planning, leisure activities, and so on.

4. Similarities and differences among the Nordic countries

As stated in the previous section on facts and figures, there are a number of relevant similarities across the Nordic region, which makes it beneficial to share common experiences and engage in comparative discussions. The challenges facing the Nordic Region in relation to peripheral areas and in relation to gender, education and population flows have many dimensions – both at an individual, group and community level, and in the interaction between the levels. The relevant similarities across the different Nordic areas are reflected in *the educational system, on the labour market and generally in the local communities* in the Nordic peripheral areas.

The Nordic countries are not only bound together by history, but also widely share political and cultural roots along with a similar set of values, which is reflected in the shape of the welfare state and the types of welfare services seen throughout the Nordic countries. The Nordic countries are also known historically to have a high degree of equality between the sexes and, compared to many other European countries, to have a strong focus on equal opportunities for men and women/boys and girls (see e.g. Siim and Stoltz 2015).

When one considers the Nordic countries together, however, there are also a number of contrasting differences, for example in terms of geographical distances, population density, distribution of natural resources, the speed at which the education and labour markets are changing, differences in the characteristics of the local labour markets and the sectors which dominate, the organisation of social infrastructure and the types of local businesses, associations and employment. In light of this, there are variations in experience and practice in political measures across the Nordic countries (Faber, Pristed Nielsen & Bennike 2015) (see also Haagensen 2014).

For Denmark, Norway, Sweden and Finland it is the case that the discussion about gender, education and population flows generally is tied to specific issues linked to particular and often sparsely populated, peripheral areas. Here focus is predominantly on the internal migration patterns among people, and especially on how young people move within the countries and/or commute to an education (see e.g. Bloksgaard, Faber and Hansen 2013). In some remote areas, the Danish, Swedish and Norwegian

youth do not have access to secondary education, or only access to a limited selection of secondary schools, which in practice may force them to leave home at a very early age (see among others Paulsgaard 2012 and 2015 and Bjarnason and Thorlindsson 2006). There is no doubt that the geographical distances are much more pronounced in Norway and Sweden, compared to e.g. Denmark. This probably also explains why there is a strong research tradition when it comes to discussing the problems surrounding gender and population flows related to educational choice particularly in Norway and Sweden. For Iceland, Greenland, the Faroe Islands and Åland, on the contrary, the issues are to a lesser extent related to regional/local variations within the countries – but still with a focus on the differences between urban and rural, centre and periphery. In these areas, the main issue in regards to population flows and education is that it often entails national emigration – leading to depopulation and decline in the number of children born, as many young people never return to their local communities after having obtained an education abroad (see e.g. Hovgaard, Eythórsson and Fellman 2004 and Rafnsdóttir 2010).

5. Existing literature and research – a summary

A number of recurring themes and trends which were identified in the main report on research and literature related to gender, education and population flows are summarized below.[3]

5.1 Young people in peripheral areas feel a great pressure to leave their local communities

The literature shows that young people – especially women – in the Nordic peripheral areas base their choice to leave on a number of very different reasons. They are often either forced to move and/or feel a pressure to leave their communities. Literature in the field stresses that young people – both men and women – leave their homes in peripheral areas, not only because they want to see and experience the world or because moving away from home is a natural part of growing up, but also because they feel it is impossible for them to stay either due to lack of educational choices and job opportunities, or because they find the local communities in peripheral areas limiting or claustrophobic.

5.2 It is often related to education or work when young people (especially women) decide to move

The report shows that young people in the Nordic region's peripheral areas have different perceptions in terms of whether or not they believe there is a place for them in their local communities in the long term. In relation to this, gender seems to play a significant role, since cross-Nordic literature stresses that changing living conditions in peripheral areas

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[3] The summary in this section is an extract from the main report "Place, (In)Equality and Gender – A Mapping of Challenges and Best Practices in Relation to Gender, Education and Population Flows in Nordic Peripheral Areas" (2015), written by Faber, Pristed Nielsen & Bennike.

causes young women to experience limitations associated with their gender, for example when assessing their future opportunities in the local labour markets. This seems, to a greater extent than is the case for the young men, to collide with the young women's concerns about how they would like to live in the long term, and what is actually possible in their local communities. It is clear from the report that young women in the periphery focus on higher education to a greater extent than young men. The literature also indicates that women's desire to move from peripheral areas can to some extent be linked to a desire by women to gain access to more and equal opportunities – in education, work and in everyday life – as well as a greater degree of freedom from traditional gender roles and norms (this point will be elaborated later).

5.3 The place where the young people live forms the premises for their opportunities and educational choices

Although the Nordic countries at a national level share a political ideal of equality, the report shows that context-specific variations exist. In this sense, the *standard of equal opportunities for all* in the Nordic education systems does not always correspond with the actual situation in the Nordic region's peripheral areas. The report indicates that across the Nordic region, it is important to ask whether men and women effectively have equal rights and are able to achieve the education/training they want. The place where young people live puts limitations on what is realistic and accessible, which means that the place where you live is part of shaping the opportunities that the young people relate to. An example of this is that some boys/young men in the periphery opt out of taking a secondary education (e.g. vocational training), because there are no institution near their home which offers this type of training.

5.4 The place where the young people live also forms the premises for their commitment and desire to obtain an education

The place where young people live is part of setting the premise for their opportunities not only in regard to their educational and work life choices, but also, to some extent, in terms of shaping their commitment and aspiration for learning. In some peripheral areas, the local labour

market requires less education and the choice not to engage in further studies can therefore be viewed as sensible and rational. Furthermore, the report highlights that the culture within educational institutions is perceived by some students as "foreign" because their identities are rooted in a community where focus is on a different type of values and forms of cultural/social capital. The research in the field indicates that especially young men are potentially experiencing a cultural collision; a collision between, on the one hand, the values and the perception of what constitutes "the good life" of young men, and, on the other hand, the educational and career-oriented narrative presented in the media and by politicians on the national stage, which states that young people must be adaptable and mobile (i.e. willing to relocate) and that academic education is the only way forward.

5.5 Geographical mobility is often linked to social mobility

As shown by research in this area, education is central to young people's life course both in the form of adjustments to the surrounding labour market, way of life, lifestyle and identity. For young people from the Nordic peripheral areas and from small urban communities in these areas, choosing a higher education often means moving away from home. At the same time, geographic mobility is in many cases linked to social mobility, as a number of the young people from peripheral areas come from homes and/or local environments where taking a higher education has not been customary. There is a distinct gender perspective attached to this issue; however, Swedish research suggests that a weak connection to the labour market and a low level of education are not necessarily viewed as a problem for young men in the periphery, who have a working class background. It has been highlighted that these young men themselves often believe that they are better off by staying in the local communities rather than moving; because the culture they like, and the privileges they have as men in the local area, do not have the same status outside the peripheral areas.

5.6 Both the gender segregated educational choices and the gender segregated labour market are pronounced in the Nordic peripheral areas

The local (and regional) labour market in peripheral areas provides a framework within which young people evaluate their options. The literature suggests that it is not only educational opportunities but also opportunities in the labour market, which affect young people's (especially young women's) desire, to move away or perhaps later return home. Research shows that young men often are more closely linked to the types of occupations and lifestyles that characterize peripheral areas, even though emphasis on retraining men to work in the so-called "female" occupations is also needed. In order to ensure that a higher number of young women choose to stay in the peripheral areas or choose to move back to their local communities after graduation, it is necessary to create local employment opportunities in peripheral areas that require higher education.

5.7 Young women in peripheral areas experience fewer opportunities within the local labour markets, but also in terms of local associational life, leisure activities and cultural events

When young women in the periphery often find that they have fewer opportunities than young men, it is not only centred on the lack of relevant job opportunities in the peripheral areas. Other aspects are emphasized in the research as well; for example, the amount and type of voluntary or leisure activities are important for young people's choices on whether to stay in peripheral areas or move – the literature points out that the activities which young men typically are involved in (e.g. hunting, fishing and outdoor recreation or for example through local professional communities), seems to link them more closely to the local area than the activities that young women are involved with.

5.8 The strong gender segregation of the Nordic labour markets reinforces the negative development trends in the periphery

A common feature across the Nordic countries' labour markets is a strong tendency of gender segregation – more pronounced in some countries than others, but nevertheless there is a general tendency for women working in the public sector and men in the private sector – and particularly the primary sector (agriculture, forestry, and mining) are largely dominated by men. This gendered segregation of the labour market in several Nordic peripheral areas has been a factor that has contributed to especially men having been hit hard by the economic crisis, as the number of traditional male occupations has decreased significantly within several areas.

5.9 Peripheral areas contain potentially inherent patriarchal structures which push away young women

In some of the literature, it is emphasized that peripheral areas tend to push women away due to inherent patriarchal structures. Thus, it is for example concluded that several of the young women consider moving away from the small communities in peripheral areas and obtaining an education crucial for shaping their own identity and creating a lifestyle detached from local cultural and structural limitations; including gendered expectations of women's roles and responsibilities, relationships and motherhood – gendered norms which these young women experience as limiting their space for action.

5.10 Some men in peripheral areas are particularly affected by the restructuring of the local labour markets and the changing living conditions

Research suggests that men in peripheral areas seem to be particularly affected by the restructuring of the labour market and the changing conditions of life that characterises the peripheral areas in all the Nordic countries. Furthermore, it has been highlighted that the recent years' financial crisis has pushed this development further along, which from a

gender perspective has led scholars to talking about not simply a recession, but a "mancession" (Weyhe 2011). This notion should be linked with today's focus on mobility and flexibility, which according to the research is part of creating a negative discourse about the men who remain in the peripheral areas. Research suggests that there are men in peripheral areas who are experiencing ambivalence, and some men also exhibit signs of what in the literature has been described as *melancholic masculinity* (McDowell 2003). This should be seen in the context that many of the young men in the periphery grow up with a traditional gendered understanding that masculinity and hard physical work are closely linked. With the restructuring of the local labour markets and the rising unemployment in the traditional male professions, this understanding is challenged.

5.11 Some men in the peripheral areas have made conscious choices to live there – and remain in their local communities because this is where they thrive

In the discussion of a female deficit which characterises many of the Nordic region's peripheral areas, it is also relevant to stress that the aim it not simply to lure newcomers (especially women) to peripheral areas, but that focus should also be on protecting the individuals (especially men) who continue to reside in the periphery, and in connection with this, produce more positive images of the periphery. The tendency for young men to have a greater degree of place attachment than the young women to the periphery is not just related to a particular type of pattern of life, particular professional communities, local business traditions or to leisure activities that harmonize well with traditional male interests – research also suggests that young men remain in their local communities because they prefer the country life, and because they feel that there are some values which they can only/best practice there. The fact that the men who remain in the periphery may happen to have made a conscious and reflexive choice of residence, education and occupation are to a lesser extent part of the cross-Nordic debate.

Did you know that… – about women/femininities i the Nordic peripheral areas

- That research long has suggested that *women in sparsely populated areas* in the Nordic countries have a higher tendency than men to *move to the urban centres.*
- That many young women in the peripheral areas experience that *the local communities have more opportunities for young men* when it comes to education, occupation and leisure.
- That many women move to the cities to study and afterwards experiences that it is difficult to return to their local areas because the *job opportunities* in the periphery does not match their *qualifications.*
- That *local gender norms* can be a contributing factor for women who want to move to the cities, as they consider the cities to be more modern and gender equal.
- That women who appreciate *traditional gender norms* are more likely to see a future for themselves in the local communities.

Did you know that… – about men/masculinities in the Nordic peripheral areas

- That research has shown that among certain young men in the peripheral areas there is a tendency *not to prioritise school* because academic knowledge is not considered an asset in the *local labour market.*
- *That there is a tendency for young men in the peripheral areas* compared to young women to *appreciate where they live,* e.g. because of the different activities that they are able to take part in (for example fishing, hunting and other outdoor activities), and this attaches the young men to the local area.
- That a number of young men consider it a *positive choice* to stay in their local communities.
- That it is often considered natural for young men in the peripheral areas to take over their *father's occupations.*
- That the *prevalent masculine culture* in some of the Nordic region's peripheral areas, which is based on hunting, outdoor activities and craftsmanship, can make it difficult for men with an academic education to feel fully accepted in the local community.

Source: Faber, Pristed Nielsen & Bennike 2015.

6. Ideas for policy-makers and other stakeholders plus selected examples from practice

In the previous section, we have presented a summary of the issues which existing research and literature in this field has previously identified as being of importance. We will now take this a step further and, based on the cross-Nordic dialogue and knowledge-sharing, present how this knowledge can potentially be translated into action, for example in relation to establishing national education policies or implementing initiatives within each of the Nordic countries. As part of the cross-Nordic dialogue and knowledge-sharing, various topics and focus areas were highlighted where it was considered not only possible but also feasible to focus on national/regional/municipal/local development from a gender perspective. Drawing attention to such focus areas could potentially affect young peoples' experience of room for manoeuvre in relation to choice of education, occupation and where to live, and thus help address some of the challenges faced by the peripheral areas. The exposition below is based on the identification of five themes, all containing specific gender issues in relation to education, work, recreation, population flows and identity in the Nordic region's peripheral/remote areas. For each theme, suggestions for action as well as practical examples are provided. These are summarized on the basis of what came to light during the cross-Nordic dialogue and exchange of experiences.

The five themes are:

1. Lack of/limited access to education in peripheral areas.
2. Restructuring of the labour markets in the peripheral areas.
3. Women find life in peripheral areas less attractive.
4. Labour supply is too narrow in the peripheral areas.
5. The stigma of the peripheral areas affects the youth of both sexes.

6.1 Theme: Lack of/limited access to education in peripheral areas.

Problem: *Increased demands and expectations of formal education as well as gender-segregated education choices.*

In some of the Nordic region's peripheral areas, the young people do not have access to neither secondary education nor higher education, or they only have access to a limited range of educations and/or fields of study, which in practice may mean that they are forced to leave home at a very young age. Previous studies show that in particular young women in peripheral areas leave home early (Faber, Pristed Nielsen & Bennike 2015). However, it must be said that there are different traditions across the Nordic countries; for example, in both Greenland, Iceland and the Faroe Islands the tradition is that young people of both sexes leave the islands (primarily to go to Denmark) to get an education. But where many of the young people from Greenland and the Faroe Islands do not return home again, in Iceland young people more often return home to use their acquired education.

The lack of – or limited access to – education in peripheral areas across the Nordic countries is problematic, because politically, socially and among young people themselves there are increasing demands and expectations of a formal education. The requirements for education are present both at the local, regional and national labour market, and it is also part of a general (and global) trend. This increased demand for formal education is related to the fact that today even traditional jobs within for instance agriculture and fishing requires a different set of skills than in the past, including knowledge of economics, management, security, etc.

The young people in the peripheral areas compare themselves with young people living elsewhere, e.g. by way of the Internet and social media, and the global/national narrative is that formal education is a requirement today. It may be difficult for the young people having to leave home at an early age (often around 16 years) in order to be able to get an education, which may result in some rejecting the idea altogether, or resulting in higher drop-out rates – both at great cost to the young people themselves, for their communities and for society as a whole.

Possible areas for action: *Decentralization of educational institutions, long-distance learning, focusing on transportation/commuting, special assistance to young people who have to move far.*

An important conclusion that recurs across all of the Nordic countries in relation to education and in relation to counteracting unintentional gendered consequences, is the importance of focusing of the geographical

location of the different educational institutions in the political planning processes. For example, in Denmark boys commute longer than girls because the vocational educational institutions (typically with a predominance of male students) are geographically far more dispersed than the upper secondary schools, and often the boys also commute to and from the place where they go for internship. This may hamper their opportunities to do leisure activities in their spare time, and at the same time it might also prevent some boys from getting an education. When decision-makers and other stakeholders discuss the possibility of centralizing and merging educational institutions into fewer but larger units, it is important to take these conclusions into consideration. This is also underlined by the fact that previous research indicates that more boys than girls tend to drop out of their education if they are forced to stay in school boarding houses or to commute long distances to complete an education. In sum, merging and centralizing educational institutions is likely to more or less directly dis-favour boys/young men.

As already mentioned, previous research shows that young men throughout the Nordic countries to a greater extent than girls are attached to their local areas, for example through leisure activities, and that the young men also are more likely to find a foothold in traditional occupations like fishing and forestry. The fact that the boys, socially and professionally, are more linked to the local area than the girls, also gives them a greater incentive to stay.

In addition, the location of an educational institution can act as a driver for various types of development in remote areas – for example, this can be identified in Akureyri (Iceland), where the local University has grown from originally 4 employees and 50 students in 1987 to 169 employees and 1,703 students in 2014. At the same time the northeast region, which is where the University of Akureyri is located, is the only region in Iceland, which has had a net immigration of Icelandic women. In the cross-Nordic dialogue a representative from KUN (Center for sharing of knowledge and equality in Nordfold) argued that it is important to keep in mind that an active local effort and placement of educational institutions in local areas can form the basis for a positive local development.

Long-distance education in remote areas is an initiative that some researchers argue can have a positive effect in relation to discouraging emigration among young people, because young people are thus able to take part of or all of their secondary or higher education by way of distance learning, while keeping their attachment to the local areas. Additionally, long-distance learning can contribute to educating the local population to

ensure that skills are present in relation to undertaking new jobs in up-coming sectors, such as within the health care system, which is generally growing at the local level in all the Nordic countries. There are many good experiences with long-distance learning of different kinds across the Nordic countries. In the 1970s, the focus was on decentralizing educational institutions in the Nordic countries, for example, in Norway, Denmark and Finland local universities were established to remedy emigration and raise the level of education outside the metropolitan areas. It remains clear the case that it is in particular technical educations which attract men, and that women are now generally over-represented in higher education across the Nordic countries.

Urbanization is a trend that is well known in all the Nordic countries. Nurturing place attachment among the young people in the peripheral areas is therefore a major factor in getting them to stay in these areas or to come back after having completed an education in one of the major cities. As part of the cross-Nordic dialogue it was mentioned that the so-called "Salmon-effect" no longer works (a pattern whereby the young people move to the cities, but return home to breed i.e. have children), and that it is therefore important to make sure that children and young people feel attached to their local communities in other ways. At the same time, it is of course important to support them in their decision to move, but if their attachment to the local area is strong, there is a greater likelihood that they will return after graduation. It is therefore important that local areas continuously signal that they *want* young people even while they are away, and that there is a need for them in the local area, when they complete their education.

6.1.1   Concrete ideas related to lack of/limited access to education in peripheral areas

- It is important to identify gender issues in relation to the provision of education in the peripheral area across the Nordic countries, including gender mainstreaming the geographical location of the educational institutions, transportation and commuting opportunities, etc. This could be done by taking into account the various educational preferences of both sexes when planning educational offers.

- Gender-segregated choices of education etc. requires awareness of the importance of gender. In the design of educational offers, it is essential to focus on how to prevent gender gaps in peripheral areas, as well as in the centres. For example, this means that educational

institutions should increasingly try to appeal to both boys and girls, and that there should be a conscious effort to prevent gender-stereotypical expectations, norms and ideals for boys/girls, young men/women. In particular, the latter should be taken into account in the efforts carried out in educational institutions among teachers and counsellors. It is especially here that it is possible to affect the strong gender segregation in young people's educational choices.

- Providing higher education by way of long-distance learning so that students can stay in their local area while being enrolled in an education may be important in order to make it possible for young people to stay in their communities and at the same time make it possible for them to get an education. There is also the option of using long-distance learning in secondary education.

6.1.2 Examples from practice related to lack of/limited access to education in peripheral areas

- An example of a long-distance learning initiative is the LOSA-project from Norway. LOSA stands for "Local education in cooperation with the labour market" ("Lokal Opplæring i Samarbeid med Arbeidlivet") and the project offers decentralized Internet-based education for young people in rural communities. Students receive Internet-based guidance from teachers/trainers, through MSN, Skype, email, video link and telephone, but can also occasionally meet in a classroom with a larger group to receive more traditional classroom training. LOSA is offered both in traditional secondary education, and in a number of vocational training programmes. The project does not directly counteract the gender segregation of educational choices, but at least studies are provided to attract both girls and boys.

- In Sweden they have tried to educate young boys with a low educational level, by providing them with the possibility of taking a so-called "college year" where young boys have the opportunity to obtain or add to the skills and competencies they lack, while receiving unemployment benefits.

- Both from Northern Norway and Sweden there are examples of involving the local labour market, which has an interest in making the young people stay in the region. This can serve as a tool if local employers can contribute e.g. with internships during the course of a study, or if they can offer part-time work in combination with, for instance, the young people enrolling in a youth education part-time.

- Regarding the need for special support to young people who have to move far away from home to get an education, it was during the cross-Nordic dialogue mentioned that in Finland there exists an additional student benefit for students who come from remote areas, so that they can afford to return home to visit while studying in the cities. This may not only contribute to helping young people in relation to homesickness etc. but also ensure that they retain affiliation to their local areas.

6.2 Theme: Restructuring of the labour markets in the peripheral areas.

Problem: *Globalisation and the financial crisis has put traditional male occupations under pressure.*

Globalisation and the financial crisis has put traditional male occupations under pressure. Due to outsourcing, global competition and demands for efficiency, for example, in the processing industry many "male jobs" have vanished and traditional trades such as agriculture and fisheries do not offer the same employment opportunities as previously. This has led to talk about the global financial crisis from 2008 onwards as "mancession" (Weyhe 2011) instead of the "the recession". Furthermore, there is no doubt that global processes create a bias in employment possibilities in particular for those, men as well as women, living in peripheral areas. Women in particular dominate the public sphere for instance in the service sector as well as in the healthcare system, and typically these jobs are not outsourced to the same extent as some of the male jobs (albeit the second wave of the financial crisis also led to savings in the public sector). Therefore, a number of initiatives (both at the local, regional and national level) have focused on recruiting more men into the service sector and the health care system. These are two sectors in the Nordic labour markets that are less under pressure, partly because of a generally aging population throughout the Nordic countries.

Possible areas for action: *Break with gender segregation both in education and the labour market. Work on softening perceptions of "female jobs" and "male jobs", respectively. Focus on retraining and upgrading the skills of men living in peripheral areas.*

It is important to include gender in labor market strategies. As long as the job market remains highly gender segregated, it is difficult to curb the effects of structural changes for one sex or the other, and balance the supply of labor in the periphery. One of the most striking examples in the

Nordic region of the effects of gender segregated labor markets is found in Åland. Here, there has been great upsurge in "female job", and thus the number of employees in the public sector grew by a whopping 20% in the period 2000–2010. In contrast, there has been a large decline in employment in the shipping industry of 8% – and precisely the shipping industry is of utmost importance for the Åland labour market (ÅSUB 2013). All in all, this means that the men – far more than the women – have been affected by fluctuating economic trends within the private sector.

For Greenlandic men, for example, the "mancession" has been related to a lack of jobs in traditional "male sectors" such as fishing (Weyhe 2011). In the cross-Nordic dialogue, it was pointed out that the labor market in Greenland is highly segregated, and that in the period 2008–2013 700 jobs in fishing have disappeared. The jobs disappear from the fishing sector due to streamlining and centralization (e.g. of fish processing, but also because the boats are getting bigger and better). Meanwhile, 59% of jobs in the public sector are held by women. In addition, the amount of jobs in the public sector is growing, causing women to "win" 240 jobs over the past years. Furthermore, many "male jobs" in Greenland are also seasonal (house construction and fishing is at a standstill during winter), which means that Greenland has approximately 4900 unemployed men during the winter, while in August and September 2000 of these who have found jobs again. This was one of the points that were highlighted in the cross-Nordic dialogue, in this case by a representative of the Greenlandic Ministry of Industry, Labour and Trade.

6.2.1 Concrete ideas related to the reduction in the number of traditional "male jobs"

- Considerations about how jobs in the public sector should be geographically distributed and/or what kinds of jobs should close down, should be accompanied by considerations of potential gendered implications; including considerations of whether the decision will primarily affect male or female workers.
- Jobcentres, trade unions and employers can work together to break the strong gender segregation in the labour market – for example, by highlighting role models or examples of men and women who have chosen gender untraditional in their working lives.
- Another issue concerns "melancholic masculinity" (McDowell 2003). This concept aims to capture the problem that some men in the peripheral areas associate masculinity with traditional forms of business and work, which can tie them to ideas about education and

career choices that do not lead to job security. Ideas as to how to tackle the problem of melancholic forms of masculinity was put forward in the cross-Nordic dialogue, such as highlighting role models i.e. by introducing young boys to men who have had success with their work in non-traditional jobs.

- In continuation of the above, the lack of male teachers and pedagogues in remote areas is an important area to look at, as men in educational institutions and kindergartens have a significant impact on boys and other young men in remote areas, as they can act as role models and provide advice and guidance. One priority could be to focus on the opportunities for training and education in later life for men who want to be, for example, kindergarten teacher or health worker.

6.2.2 Examples from practice related to the reduction in the number of traditional "male jobs"

- The Icelandic trade unions point to the possibility that the trade unions actively include requirements for training funds when negotiating agreements, while also highlighting how the Icelandic trade union movement has actively supported the establishment of educational institutions in peripheral areas, especially in order to create locally based opportunities for continuing education.

- Another approach found in Norway, is the project Men in Health ("Menn I Helse") which aims at retraining men from typical "male jobs" to take over jobs in the care sector. This project has been quite successful when assessing the number of men who have completed a health professional education and subsequently found employment. Through targeted recruitment campaigns and the use of role models, this project has helped to change the image of jobs in the care sector, and stressed that this is also a sector which contains jobs for men.

- In Denmark social clauses have been introduced in some sectors to ensure that local employment opportunities are available for instance in relation to local public construction projects. This means that companies know that if they want to win a contract on a public construction project, they must be willing to offer apprenticeships for local young people.

6.3 Theme: Women find life in peripheral areas less attractive.

Problem: *The women in remote areas demand more education and employment opportunities as well as a wider range of culture and leisure activities. They also demand less social control and liberation from traditional gender norms.*

As mentioned previously, research in this field documents that the youth (and especially the young women), point to educational and work opportunities when explaining why they want to move away. This points to the importance of ensuring a broader variety of opportunities and job creation in remote areas. The mapping of the literature on trends in the labour markets in the periphery emphasizes that an important key to creating change in education patterns and population flows, may lie in softening notions of "male jobs" and "female jobs". If local labour markets can dismantle these boundaries, it would both expand the supply of experienced job and training opportunities for young men and women, and also contribute to the break with traditional gender norms which the young women otherwise seek through moving to larger cities.

Another issue is the fact that young women in remote areas often find that they have fewer opportunities than young men, when it comes to the type and amount of voluntary or leisure and cultural activities. Such activities play an important role in young people's choice of whether to stay in remote areas or to move – and existing research literature points out that the activities that the young men take part in seem to attach them more to the place than the activities that the young women participate in. At the same time, research from e.g. Denmark, the Faroe Islands and Iceland point out that for some young women, it also plays a part in their decision to leave that they want to get away from existing traditional gender norms, which they find limiting. Women's motives for moving from peripheral areas hence relate not only to education and jobs, but also that they experience a lack of opportunity to influence the local community and local decision-making processes.

Possible areas for action: *It is important to be able to offer more varied opportunities and types of jobs in remote areas. Broader cultural offers should be recognized as important, and there should be conscious effort to discuss existing gender norms. Research is lacking about the unwritten rules and norms governing the relations between men and women in remote areas.*

It is important to include the whole range of life in the small communities when responses to emigration, and for example seek to provide a wider range of cultural offers and an active discussion of local gender

norms and expectations. The mapping of existing research did not lead to the identification of practical examples that relate directly to this issue. Neither did the cross-Nordic dialogue provide examples of action in this area, but based on reports from Åland Statistical Bureau, it is evident that leisure activities are to a large extent gender segregated, and research from both Greenland and the Faroe Islands indicate how cultural life plays a role for women when deciding where to live.

6.3.1 Concrete ideas related to making women find life in peripheral areas more attractive

- Efforts should be made locally to create new stories about the peripheral areas as places containing relevant opportunities for both women and men. It is essential to break with these stereotypical "pictures" that children and adolescents are presented with in relation to the gendered choices of hobbies and leisure activities already at an early stage in the educational system.

- Research, especially from the Faroe Islands and Greenland, has suggested that it may be a problem that many local councils and municipal bodies do not have female members or only have very few female members. This can contribute to invoking a feeling among women that they have no possibilities for influencing their local communities.

- It is relevant to perform gender mainstreaming in relation to leisure activities and cultural offers. There are differences in the respective leisure and cultural activities offered in cities and in remote areas, and this fact contains a gender dimension. Thus, when cultural and leisure oriented activities are planned in the peripheral areas, gender is an essential category to include in the planning. Here, gender mainstreaming can be used as a method to study the differences. Concretely, regional, municipal and local actors providing leisure and cultural activities and cultural should be asked to consider how their offers appeal to men and women, as well as to boys and girls.

6.3.2 Examples from practice related to making women find life in peripheral areas more attractive

- Over the years, the Nordic countries have in different ways worked to break down the gender segregated labour market, for instance with a focus on getting more women into so-called "male occupations" and more men into so-called "female occupations". In the cross-Nordic dialogue it was emphasized that experiences from Norway show that the single-sex structures tend to be reproduced as soon as the focus is removed. It was reported that public authorities in Norway put great focus on getting women into male occupations for a period of time, which also included a lot of volunteers who served as role models. The initiative had great power and had a positive effect on both the gender segregated educational choices and the gender segregated labour market. The conclusion of the project was that it is possible to change the traditional gender segregated choices of both education and jobs, and national/regional/local initiatives have an effect – but it requires a lot of effort and continuity.

6.4 Theme: Labour supply is too narrow in the peripheral areas.

Problem: *Lack of jobs that match their skills lead women in particular to leave the peripheral areas.*

The labor supply is often very narrow in remote areas with few jobs in the tertiary sector (i.e. in trade and services) and especially few jobs within knowledge-based work, which typically requires a higher education. As more young women than young men obtain a university education throughout the Nordic countries, this means that labor markets in remote areas often simply do not contain jobs that match women's qualifications, which causes them to opt out of these areas.

Possible areas for action: *Decentralization of knowledge-based jobs within the public sector, support entrepreneurship, creation of "SMART-work" centres.*

It is important to implement efforts to diversify the supply of labour in the periphery, i.e. create jobs that are not similar to those that already exist locally. Research indicates that it is not the size of a locality but its internal variation in the supply of labor which is the decisive factor for the creation of a "female deficit" or not (see Hamilton and Otterstad, 1998).

Therefore, it is essential to establish highly skilled jobs in the local community and/or strengthening the possibilities of remote working places or "SMART-work" centres, as women generally have obtained a higher level of education than men, and thus are more likely to wish to stay in local communities if more highly skilled jobs are available.

6.4.1 Concrete ideas related to making the labor supply wider in the peripheral areas

- In the cross-Nordic dialogue, a representative from the University of the Faroe Islands pointed out that the problem of "female deficit" concretely could be countered if the individual Nordic countries developed a "mobility policy". This would allow, for instance, living in Tórshavn, but working in Copenhagen or Reykjavik. In the Faroe Islands there are already people who live and work in this way, but it is difficult with the current system – particularly in relation to spreading the current system to different sectors. For example, one has to be a craftsman to get tax deduction under current Faroese rules. It was suggested that this could be a policy area that could be addressed jointly on a Nordic level, thereby facilitating opportunities to stay in outlying areas while having an exciting and relevant job.
- Various possibilities exist for improving the infrastructural conditions for starting a business and/or working from a local base – for example, by means of fast broadband connections and shared office spaces.

6.4.2 Examples from practice related to making the labor supply wider in the peripheral areas

- An example for possible copying within other contexts was experiences with supporting entrepreneurship courses. These are generally found in several Nordic countries, for example Brautargengi which is an Icelandic project specifically targeting female entrepreneurs. The course has helped to strengthen young women's awareness of the possibilities for starting their own business as an alternative career path – even in remote areas. Thus, the project has helped to maintain some women in remote areas that otherwise would have moved to larger cities to find jobs.
- SMART work centers may be found in several places across the Nordic countries, but often in urban areas, although there is great potential also outside the major cities. An example of this can be

found in the "distance worker house" in Tranum in Denmark, created under the motto of Tranum as "Europe's fastest village".

6.5   Theme: The stigma of the peripheral areas affects the youth of both sexes.

Problem: *The negative publicity and image of peripheral areas enhances young peoples' desire to move away.*

Both from the mapping as well as the cross-Nordic dialogue, it is evident that various negative notions and discourses about the peripheral areas of the Nordic countries and the people who live here are prominent. This negative stigma is not only rooted in the media; it is also heard regularly among politicians, practitioners, researchers and, not least, it is recorded by the people, especially the young people, who live in remote areas. Within research, it is common to refer to so-called "supra-local currents"; these include ideas of what constitutes "the good life" and the stories attached to remote areas, and often repeated in both print, digital and social media and the web in general. Precisely the Internet and social media are important arenas in young people's daily lives, and they are for many young people – also in peripheral areas – an important frame of reference for how they see themselves, and the thoughts they have about their future (Faber, Pristed Nielsen & Bennike 2015).

The stigma of the peripheral areas affects both young girls and boys, and the negative publicity enhances young peoples' desire to move away. In the cross-Nordic dialogue, it was confirmed that in remote areas across the Nordic region, it is common to come across the idea that it is "necessary" to move away to be "modern". The negative stories about the Nordic peripheral regions indicate that they are perceived as places that must change (be "modernized"), rather than places to be nurtured and preserved. Research indicates that the perception of peripheral areas by young people is often more important than the factual conditions. In the cross-Nordic dialogue and exchange of experiences, it was stressed that promoting alternative images and possibilities can contribute to new patterns and strategies developed among the youth in remote areas – perhaps especially among young men.

Possible areas for action: *There is a need for new stories about the peripheral areas: stories about these areas as places to be nurtured and preserved. Research indicates that some (especially men) choose to remain living in remote areas because they actually thrive here.*

It is important to nuance the stories about life in remote areas, and is important to remember that some (men) actively choose to stay because they thrive precisely here, and that it is therefore also important to avoid creating a narrative that the only way forward for the young is to leave to get an education and a job. It is therefore important that the stigma of the peripheral areas is addressed so that there can be a change of attitude. However, this is a long term process and it is therefore important that there is political support for strengthening the peripheral areas, which includes making decisions about investments in infrastructure, leisure facilities, internet availability, day-care, social institutions and decentralization of all welfare offers, etc. At the same time, it is important to emphasize those role models which articulate good examples. Here, the school and the teachers have an important task in having an eye for the individual child or young person, and not blindly passing on existing gender norms and expectations. In addition, the peripheral areas share a responsibility to speak up and highlight the benefits of living in smaller municipalities/areas both in terms of leisure and working life.

In the cross-Nordic dialogue it was discussed how – over the course the past twenty years – there has been a shift in relation to policy and work on regional development, for example in Sweden. This is a shift which the mapping also identifies in many of the other Nordic countries – although Norway here differs with a more decentralized approach. The point is that focus seems to have changed from a previous national level focus in the individual Nordic countries on ensuring equal opportunities and equal living conditions in *all* areas of the respective countries, to a current situation in which focus across the Nordic countries – though growth in all regions continues to be an important theme – often still translates into a clear prioritization of metropolitan regions and peri-urban areas.

6.5.1 Concrete ideas related to creating a new narrative about the peripheral areas

- The mapping and cross-Nordic dialogue suggest that efforts at all levels (national, regional and local) should be directed towards changing the narrative about the Nordic region's peripheral areas so that other images and opportunities are promoted as a way to contribute to the development of new patterns and strategies for both sexes.

6.5.2 Examples from practice related to creating a new narrative about the peripheral areas

- A clear example of a successful "new narrative" was presented as part of the cross-Nordic dialogue. A representative from Ærø Municipality in Denmark reported that such an initiative has been launched to increase settlement on the island, including specifically the idea of setting up a so-called "bosætningshus" [settlement house] where individuals or families who are considering moving to the island can apply for being allowed to stay for up to 3 months, in order to "try out island life" without tying themselves by investing in a house from day one. Both on Ærø and in relation to other similar initiatives in Denmark, meetings have also been arranged where "new" and "old" residents can meet each other.

- Both in Sweden and Denmark, interest groups have formed who together try to defend the interests of some of the less densely populated areas. The association "Hele Sverige Ska Leva" [the Whole of Sweden Must Live] and "Sammenslutningen af Danske Småøer" [the Association of Small Danish Islands] were thus represented in the cross-Nordic dialogue and reported, amongst other issues, about branding strategies and attempts to create common (local) political solutions for some of the challenges they faced.

- The education program "West Nordic Master" is an example of a program provided in cooperation between universities in the Faroe Islands, Iceland, Northern Norway and Greenland. This education focuses its content specifically on the challenges facing the Nordic peripheral areas, including the gendered dimensions of these challenges.

- It is relevant to mainstream a gender perspective into initiatives and projects that aim to make the peripheral areas more attractive and thus attract newcomers. An example is "Tiltakssonen" in Finnmark and North-Tromso, Norway. This project involves student loan relief or cancellation for highly educated, who settle in Finnmark and North Troms after graduation (as more women have an education and thus a loan, this initiative contains an inherent gender dimension). The project also includes higher child allowances and supplements for day care staff in remote areas (this relates to both parents, but research shows that especially women prioritize the quality of welfare provisions when they make decisions about where they want to settle).

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Resumé – DK

Under det danske formandskab for Nordisk Ministerråd i 2015 blev der sat fokus på udfordringer og gode praksiseksempler i relation til køn, uddannelse og befolkningsstrømme i yderområderne i hele Norden – Norge, Danmark, Sverige, Finland, Island og de selvstyrende lande Grønland, Færøerne samt Åland. Denne opsamlingsrapport sammenfatter de resultater samt konklusioner, som er afdækket i den eksisterende nordiske forskning og faglitteratur på området samt præsenterer de erfaringer og faglige indspil, som kom frem på et seminar for vidensdeling for forskellige interessenter på tværs af Norden. Rapport giver således en komprimeret præsentation af den viden, der foreligger på området, og fungerer samtidig som et mere praksisorienteret inspirationskatalog til politiske beslutningstagere, andre myndigheder og aktører i forhold til en fremtidig indsats på området – lokalt, regionalt, nationalt og på tværs af Norden.

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Gender, Education and Population Flows

During the Danish Presidency for the Nordic Council of Ministers in 2015, attention was drawn towards challenges and best practice examples in relation to gender, education and population flows in peripheral areas throughout the Nordic countries - Norway, Denmark, Sweden, Finland, Iceland and the autonomous countries, Greenland, the Faroe Islands and Aaland.

The present report summarises the findings and conclusions which are covered in the existing Nordic research and literature within the field, as well as the experience and professional responses, which were presented during the course of the common dialogue and exchange of experience.

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Nell Haynes

SOCIAL MEDIA

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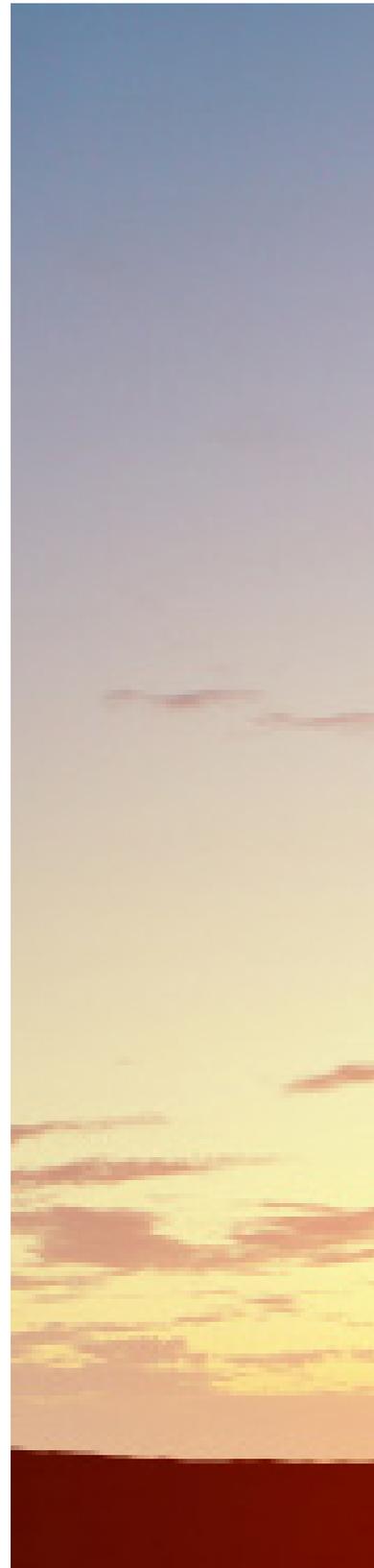
NORTHERN CHILE

Social Media in Northern Chile

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Why
We
Post

Social Media in Northern Chile

Posting the Extraordinarily Ordinary

Nell Haynes

Introduction to the series Why We Post

This book is one of a series of 11 titles. There are nine monographs devoted to specific field sites (including this one) in Brazil, Chile, China, England, India, Italy, Trinidad and Turkey – they will be published in 2016–17. The series also includes a comparative book about all of our findings, published to accompany this title, and a final book which contrasts the visuals that people post on Facebook in the English field site with those on our Trinidadian field site.

When we tell people that we have written nine monographs about social media around the world, and that they all have the same chapter headings (apart from Chapter 5), they are concerned about potential repetition. However, if you decide to read several of these books (and we very much hope you do), you will see that this device has been helpful in showing the precise opposite. Each book is as individual and distinct as if it were on an entirely different topic.

This is perhaps our single most important finding. Most studies of the internet and social media are based on research methods that assume we can generalise across different groups. We look at tweets in one place and write about 'Twitter'. We conduct tests about social media and friendship in one population, and then write on this topic as if friendship means the same thing for all populations. By presenting nine books with the same chapter headings, you can judge for yourselves what kinds of generalisations are, or are not, possible.

Our intention is not to evaluate social media, either positively or negatively. Instead the purpose is educational, providing detailed evidence of what social media has become in each place, and the local consequences, including local evaluations.

Each book is based on 15 months of research during which time most of the anthropologists lived, worked and interacted with people in the local language. Yet they differ from the dominant tradition of writing social science books. Firstly they do not engage with the academic literatures on social media. It would be highly repetitive to have the

same discussions in all nine books. Instead discussions of these literatures are to be found in our comparative book, *How the World Changed Social Media*. Secondly these monographs are not comparative, which again is the primary function of this other volume. Thirdly, given the immense interest in social media from the general public, we have tried to write in an accessible and open style. This means we have adopted a mode more common in historical writing of keeping all citations and the discussion of all wider academic issues to endnotes. If you prefer to read above the line, each text offers a simple narrative about our findings. If you want to read a more conventional academic book that relates the material to its academic context, this can be done through engaging with the endnotes.

We hope you enjoy the results, and we hope you will also read our comparative book – and perhaps some of the other monographs – in addition to this one.

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Introduction: Online and on the margins in Alto Hospicio, Chile

On 18 September 2014 – Chile's national holiday, the *Fiestas Patrias* – 24-year-old Nicole work up early in her family apartment. She looked out the window at Alto Hospicio, in the north of the country. Her mother was in the kitchen preparing food for the occasion and her father had just arrived home from a week-long shift as a heavy machine operator at a large copper mine a few hours away from the city. She could hear her younger brother still snoring through the thin walls of their small apartment. As usual she grabbed her second-hand iPhone 4 to send Martin, her boyfriend of five years, a Facebook message wishing him a good morning. Then she began skimming through Facebook. After reading a number of posts wishing everyone a fun-filled holiday, she wrote her own post related to *Fiestas Patrias.*

> *Primero, soy HOSPICEÑA, Después, soy NORTINA, y último, soy Chilena. . .así qué viva Alto Hospicio! Viva el Norte!*
>
> First I am HOSPICEÑA [from the city of Alto Hospicio], next I am NORTHERN and finally I am Chilean . . . so Hooray Alto Hospicio! Hooray the North!!

In this short post Nicole declared her loyalties – first to her city, next to the region and only then to her country, even on the national holiday. In many ways she used this post to establish how she imagines her position in the world, and the way she understands herself in relation to various larger communities to which she belongs. Alto Hospicio is considered a marginalised city, and the far north of the country a peripheral region. By emphasising these more local ways of identifying rather than her national pride, she highlights her own marginality as a citizen. Particularly during *Fiestas Patrias*, a time invested with national symbolism, when she writes 'Viva Alto Hospicio! Viva el Norte!' she leaves the much more common phrase 'Viva Chile' notably absent.

1

Nicole's proclamations of loyalty to city, region and nation are particularly poignant as conveyed through social media, a form of communication often imagined as existing beyond any borders. Social media has become associated with global networks, unfettered by nation-states, geographical differences or even cultural variation. Yet Nicole used this medium precisely to declare certain kinds of place-based citizenship.

Citizenship, in its colloquial use, is generally understood to mean an individual's membership in a political and geographic community. It includes that individual's legal status in relation to a governing body, but also her or his participation within the public defined by that governing body. These range from small-scale, local, face-to-face communities, in which an action such as picking up litter makes one a 'good citizen', to the much larger communities such as the nation – or even a sense of 'global citizenship' where most members do not know one another face-to-face, yet individuals still feel obligations to contribute to a collective good.

The specific meaning of citizenship varies considerably in different historical, physical and cultural contexts. Bosniak suggests that we conceive of citizenship as a collection of interwoven strands including legal status in an organised community, rights within such communities, public participation and feelings of belonging.[1] Considering these different conceptions of citizenship allows us to differentiate between them, while also recognising that they are always (en)tangled. These various meanings at times complement one another; at other times there may be tension between them. As Nicole's post makes clear, citizenship is often deeply connected to people's understanding of who, where and how they exist in the world.

Traditional treatments of citizenship acknowledge the role of mass media in its construction, particularly in terms of belonging and nationalism. For example, in tracing the spread of print media beginning with the Industrial Revolution, Benedict Anderson suggests that speakers of different varieties of a language such as English or Spanish may have found it difficult to understand people from another region, even if they nominally spoke the 'same' language. With the rise of national newspapers, however, people began to see themselves as similar to others in the rest of their country, who were readers of the very same paper, and began to understand the nation as an 'imagined community'.[2] With the emergence of internet communication, and particularly the interactive features of social media, we can see how these imagined communities are now likely to cross national borders quite easily.

Anderson indeed suggests that the local alignment of social habits, culture, attachment and political participation are being unravelled, in

part, by modern communications. However, virtual spaces also allow for conceptions of citizenship that move beyond formal, legal and constitutional definitions in order to emphasise the 'everyday practices of belonging through which social membership is negotiated'.[3] As we see from Nicole's Facebook post, in some instances global forms of communication become the very space in which individuals use place-based ways of expressing the self. And Nicole is not alone. Though not always as explicit, the residents of Alto Hospicio, Chile often use social media to express various forms of citizenship related to the city, region or nation. Much like the 'public sphere', described by Habermas[4] as a domain of social life in which public opinion may be formed and debated, social media provides a space for discussion, for expressing opinions – and thus creates a public for discussing and contesting what citizenship means.

Because this new public sphere of social media is, in theory, open to and viewable by people almost anywhere in the world, we often find it easy to assume that it fosters forms of cosmopolitan citizenship, privileging the view that all people, regardless of geographic location or political affiliations, are citizens in a single community. As borders become increasingly porous, with capital, goods, people and ideas flowing practically unimpeded by geographic boundaries,[5] citizenship takes on new meaning. Within such a context, the way Nicole and many other Hospiceños place importance on locally based forms of citizenship becomes all the more meaningful, particularly as residents of a marginalised area. Social media provides an ideal medium for studying these types of self-expression, rendering them visible both to other Hospiceños and to the ethnographic observer.

Hospiceños contrast their experiences with the types of national or global citizenship that often accompany movements of people and ideas, promoting a sense of solidarity within the community rather than emphasising distinctions. These individuals identify in ways that highlight local affiliation connected to family, social networks, work and community politics. When Hospiceños express these identifications through social media it often reinforces their values of normativity in surprising ways. This book elucidates the ways in which Hospiceños use social media as a conduit to highlight certain discourses and erase others, in the service of sustaining normativity and redefining citizenship from a a marginalised position.

These themes of citizenship, marginality and normativity are pertinent to the discussion of social media in this book. This is because, particularly in a marginalised area, social media has become the most prominent public sphere in which claims to and contestations of

citizenship may be made. In Alto Hospicio most of what people post on social media is in some sense connected to the performance, maintenance or examination of what it means to be a good citizen.[6] Of course not all postings explicitly announce that they are about citizenship, as Nicole's did on the national holiday. Instead most of Hospiceños' posts masquerade as funny memes, silly videos, mundane photographs or banal recounting of the day's events in a status update. When framed as claims that their marginality actually represents a normative form of citizenship, however, the extraordinary potential of an ordinary post is revealed.

Viva Alto Hospicio!

When Nicole wrote her Facebook post, declaring 'First I am Hospiceña', she communicated the importance of her connection to Alto Hospicio. She positioned herself as one of the roughly 100,000 residents who occupy this city near the geographic centre of the *Norte Grande,* or 'Great North' region of Chile. Alto Hospicio, literally translated as 'High Accommodation', sits high on a sand dune overlooking the Pacific Ocean, but at first glance there is little that seems hospitable about the place.

The Great North is enveloped by the Atacama Desert, the driest in the world, and the natural landscape is barren. Sand permeates everything. Most roads in the city are paved, but covered with a layer of sand, giving them the same neutral colour as the empty lots that host beds of discarded rubbish. Cars line the streets from one end to another, also covered in a thin layer of sandy dust. Homes are usually constructed of painted cement blocks or bricks, with flat roofs, and surrounded by security fences. Dogs lie by the side of the street, often with a coat of sand covering their fur. Average annual precipitation is about 1 mm, so plant life is almost completely absent, apart from a few plazas with artificially grown palms, flowers and grass. Playgrounds and cement basketball courts are common, and well used, leaving them with peeling, faded paint. The wares sold at corner shops spill out into the street, alongside faded poster advertisements that look as if they were printed in the mid-1980s. On busy streets and plazas vendors lay out wares on blankets, selling everything from fresh produce and prepared lunches to school supplies and used clothing.

Despite its 100,000 residents, Alto Hospicio feels like a small city that continues to sprawl. The central business area occupies only three blocks of busy road, and includes city government offices, the cultural centre, several banks, two supermarkets and what seems like

Fig. 1.1 Map of Chile showing Alto Hospicio, nearby Iquique and the national capital, Santiago

100 barbers shops. The city began to grow in the early 1990s, jumping from 9,000 residents in 1992 to over 90,000 a decade later, and has been officially recognised as a municipality only since 2004. Although it is a new city, there is something that looks faded and used about almost everything. Nothing seems to be shiny or fresh in Alto Hospicio.

Glancing at the social media profiles of young Hospiceños makes this clear. They snap selfies in front of their dusty school buildings or inside their homes, usually decorated with furniture and textiles purchased second-hand at the city's outdoor market. Even the humorous
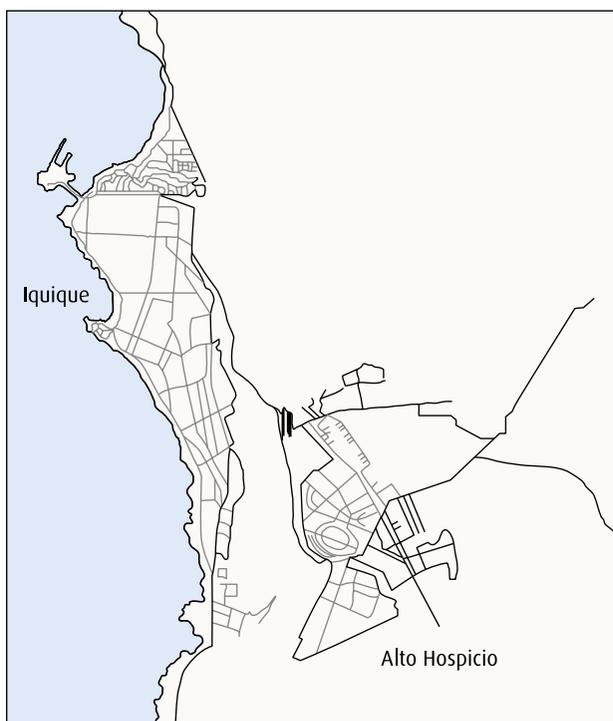
Fig. 1.2 Detailed map of Iquique and Alto Hospicio

memes so popular among Chileans are passed from page to page like reused goods.

Though the majority of this young generation grew up in Alto Hospicio, most of their parents did not. The population boom of the 1990s was a result of strong economic conditions in the region. Alto Hospicio sits between the port city of Iquique, with its tax-free import zone, Zofri, and copper mining operations in the Altiplano, the high plain of Chile's interior. So, despite the seemingly barren surroundings, the region teems with natural resources, from fishing and importation on the Pacific coast to the copper reserves in the Andes mountains. Because of these resources, the region attracts migrants from central and southern Chile, as well as international migrants from Bolivia, Peru and Colombia, all looking for better work opportunities.

The entire Norte Grande[7] region is essential to Chile's economy. The port in Iquique is one of the most important in western South America, and employs about 20,000 people, loading and unloading cargo,

Fig. 1.3 A view of Alto Hospicio from a hill in the central eastern part of the city

shipping goods and selling tax-free items in Zofri. Even more influential is the mining industry, which employs over 150,000 people throughout Chile, most of whom are concentrated in the Great North. Copper exports alone make up about 20 per cent of the country's GDP and 60 per cent of its exports.[8] Yet while the people who consider Alto Hospicio their home make up a significant proportion of workers in both these industries, they rarely experience the true economic benefits of this industry.

The economy of this mining region in Chile is a study of contrasting juxtaposition, in which vast mineral wealth is surrounded by a seemingly endless desert void. In Iquique's new southern neighbourhoods high-level managers and international engineers buy mini-mansions and park their Hummers in the driveway. At the same time the majority of mining workers and their families live in modest neighbourhoods in northern and central Iquique or in Alto Hospicio, often inhabiting homes with cement floors and lacking conveniences such as hot water. In Alto Hospicio some entire neighbourhoods are *tomas* [takings], in which residents simply claimed the land without any title by building their own houses there.

Iquique is surrounded by water to the west and a 600-m sand dune to the east. The latter curves toward the ocean to close off the city in the north and south, dropping almost directly into the sea. As both

the mining and importation industries boomed in the 1990s and huge numbers of migrants arrived to the region from other parts of Chile and abroad, Iquique simply could not accommodate more people: moving to Alto Hospicio was the only option. The sand dune had long been home to a mining train depot, dating from the early twentieth century, and a few indigenous peoples' settlements that had been there since the 1950s. Migrants began staking claims to land on the dune, simply by beginning to build on the area that later became known as the *Auto Construcción* [Self-Construction] neighbourhood.

As the city continued to grow, new neighbourhood developments became more organised, with homes and large apartment buildings funded by government programmes. Alto Hospicio continued to be officially part of Iquique until 12 April 2004, when President Ricardo Lagos Escobar signed Law No. 19943 declaring Alto Hospicio a separate municipality. Today most reports suggest that Alto Hospicio has about 100,000 inhabitants, though no census results have been made public since 2002.

Residents describe the city as marginal and disenfranchised, calling it *fome* [boring] and ugly. Because almost all residences in the city are modest – either self-constructed or part of government social housing systems – a uniform and utilitarian aesthetic pervades the

Fig. 1.4   A self-constructed home in a *toma* neighbourhood

Fig. 1.5 'Alto Hospicio occupies last place in ranking of quality of life in cities'

landscape. Those in the port city of Iquique, just 10 km down the sand dune to the east, often describe Alto Hospicio as impoverished, dangerous and 'uninhabitable'. In 2014 and 2015, during which I conducted the majority of my field work, the *Indice de Calidad de Vida Urbana* [National Index of Quality of Urban Life] ranked Alto Hospicio last among cities in Chile. The rankings took into consideration working conditions, business climates, sociocultural conditions, transportation connectivity, health, environment and housing.[9] Hospiceños certainly recognise these stereotypes about the city, and do not necessarily disagree. However, they see their marginalised city as part of the way they perceive themselves – not as victims, but as an exploited community that continues to fight for its rights.

When the quality of life ranking appeared in the news, many Hospiceños shared a link to the article on Facebook, commenting with

both pride and sarcasm. Commentaries ranged from '*Díos mío, como sobreviven???*' [My God, how do they survive?] to '*Vengan a visitar a nuestro paradiso*' [Come visit our paradise]. No one contested the ranking or listed things that they felt could be assets for the city. Instead they employed sarcasm to highlight both their pride in being from Alto Hospicio, as well as calling attention to their marginalised subjectivity that comes as part of being a Hospiceño. They knew most people who would see their comments on the post were Hospiceños as well, but still felt it was important to comment. Within the local public sphere, these types of public comments about marginality were important to express belonging and community cohesion.

Viva El Norte!

Alto Hospicio's quality of life ranking clearly marks the city as marginal. Yet it also calls attention to the fact the entire northern region is in many ways a peripheral zone. Indeed, this positioning was important to Nicole's declaration of northern pride as well. Despite a few high-ranking mining professionals who make their homes in Iquique, the wealth and prestige of Chile is concentrated away from the North. At the same time, however, this wealth and prestige very much depends on the northern region's natural resources.[10] Copper exports from the Great North make up about one-third of the country's income, significantly contributing to the fact that Chile's economy expands by about six per cent annually while unemployment and inflation remain very low.[11] In fact it was the natural resources of the Great North's Atacama Desert that brought the region into the Chilean nation in the first place.

The Inca were the first to exploit the natural resources of the Atacama, developing silver mining after they colonised the Chango indigenous people of the region in the early sixteenth century. Spanish colonists, who conquered the area and its people a few decades later, further exploited silver deposits and built up the city of Iquique as a social and economic centre. When Peru won independence from Spain in 1821, Iquique and the surrounding mining towns became part of this new nation. It was not until the 1830s, when prospectors discovered deposits of the natural fertiliser sodium nitrate in the Atacama, that the governments of Bolivia, Chile and Peru began to consider the land valuable. All three nations hoped to profit from mining, and began negotiating what was previously an undefined border. After decades of dispute,

Fig. 1.6 Map of territory changes as a result of the War of the Pacific

and encouraged by British financiers, Chilean president Aníbal Pinto sent troops to capture the resource-rich desert that was under Bolivian rule. In accordance with a previous treaty Peru came to the defence of Bolivia, joining in combat against Chile. Pinto declared war on both nations in April 1879, thus beginning what became known as the War of the Pacific (1879–83). By the end of the conflict in 1884 Chile had taken Bolivia's entire coastline and Peru's southernmost province of Tarapacá, thus moving its northern border more than 700 km north. The area of

Iquique and Alto Hospicio, as well as Antofagasta (more than 400 km to the south), had both previously been Bolivian areas. Arica (300 km to the north), formerly part of Peru, also now came under Chilean rule. Most importantly, the resource-rich Atacama Desert had become Chilean territory. The border has remained as such, though the area is still disputed; Bolivia and Peru continue to file challenges with the United Nations International Court of Justice.

When Chile finally firmed up its claim to the Atacama territory, the government quickly set about a process of 'Chileanisation' to cement their sovereignty. Military units were stationed in the area, not only as deterrents to Peruvian and Bolivian forces, but also to remind the populace of their new nationality. To mitigate resentment towards the military, and the new nation as a whole, the Chilean government launched projects aimed at incorporating the northern population into the nation-state. It mounted projects in religion and education for both children and adults, projects which Frazier calls 'key vehicles for promulgating official memory'.[12]

Modernisation was at the core of the country's nationalist discourse. The newly won northern region of Tarapacá was home to nitrate exports that provided economic means to sustain such an image. A new class of wealthy citizens emerged from the nitrate industry, strengthening Chile's reputation as a country of wealth, culture, progress and modernity, but most were based in the capital, Santiago.

Nitrate mining, particularly as backed by foreign investment, created a boom in the region. Though most of the new-made nitrate barons settled in Santiago or abroad, those who settled in Iquique quickly set about constructing the city in European style; a municipal theatre was included among many stately buildings of colonial architecture, made of Oregon pine. Migrants began arriving from Southern Chile, Bolivia, Peru and other South American nations to fulfil the need for labour in the mines and processing plants. The nitrate industry proved short-lived, however; a German-made synthetic substitute was created in 1909, causing the Chilean industry to collapse by the 1940s.

Cycles of economic boom and bust have characterised the area since the nitrate era. The most recent mining boom, beginning in the 1980s, has been in copper exportation, and it continued through the time of my field work. In the current decade (2010s) northern Chile supplies one-third of the world's copper, which makes up 60 per cent of the country's exports and 20 per cent of its GDP. Large multinational

companies such as Phelps Dodge and Sumitomo have partnered with CODELCO, the state-owned copper company. Much of the profit is sent abroad, to Japan, the United States and the United Kingdom, while the Chilean government averages about 11.5 billion US$ per year in profits from mining.[13]

The influence of mining also made Tarapacá the 'birthplace of the Chilean labour movement'.[14] In the early nineteenth century most of the labour force in the sodium nitrate fields was composed of migrants from southern Chile, Argentina, Peru and Bolivia. Despite very different backgrounds, these workers overcame ethnic and national differences to organise their demands for better working conditions. Such solidarity was in part a consequence of their labour and lives being so thoroughly controlled by the nitrate industry. Mining companies often paid wages in tokens usable only at company-owned stores, and most workers had no family resources on which to rely. The nitrate fields were also so distant from workers' homes that it was almost impossible to return to their communities with any regularity. With the mobility of the workforce restricted, the companies found it easier to enforce adherence to work schedules and rules. As Frazier suggests, these conditions gave workers the sense that 'solidarity among the miners was their sole means of protecting themselves against the ups and downs

Fig. 1.7 Iquique's Municipal Theatre, decorated for *Fiestas Patrias*

of the mining cycle and exploitation by the foreign companies'.[15] The labour movement, increasingly important until the early twentieth century, organised not only for better working conditions, particularly in response to times of economic depression: it also supported the creation of schools, adult education programmes, cultural centres and women's centres, and has been noted as providing a foundation for Chilean socialism.[16]

The Great North was a strong region for the socialist party in Chile through the 1960s, making it a particularly prominent target when Augusto Pinochet's United States-backed neoliberal regime overthrew Salvador Allende's socialist government in 1973. General Sergio Arellano flew by helicopter from Santiago to the northern provinces in what came to be known as the 'Caravan of Death'. He visited the prisons filled with 'subversives' – socialist party sympathisers – and singled out the highest profile prisoners for execution, sometimes as many as 26 at a time.

Of those who were not imprisoned, tortured or disappeared, many Northerners fled the country. The area was already well equipped with tunnels into Peru. They had been used to smuggle food into Chile during the preceding US-led embargo designed to weaken the socialist party, paving the way for a leadership more sympathetic to neoliberal reforms. When, despite the embargo, Chileans reaffirmed their faith in socialism by electing Allende, the United States backed Pinochet's violent military coup. The food-smuggling tunnels were then transformed into escape routes, and at times, into living quarters. Overall the brutal regime executed or disappeared 3,200 Chileans. It imprisoned an additional 80,000, while more than 200,000 fled the country.[17]

The influence of the Pinochet regime was multifaceted, resulting in huge economic impacts on the region as well. Indeed, the United States backed the regime specifically as a means to install Milton Friedman's neoliberal economic theories as a test case. These policies centred on privatising state-owned companies and resources, deregulating business, cutting social services and opening the country to unimpeded imports.[18] As a result inflation spiralled to 374 per cent. More than 400 state-owned companies were privatised and tariffs were brought down by an average 70 per cent. Chileans working in manufacturing and related industries quickly lost their jobs as cheaper imports flooded the market. Unemployment under Allende had been about three per cent, but under the new 'economic shock' dictated by Friedman it reached 20 per cent. In 1975 Pinochet's finance minister

reduced government spending by 27 per cent and continued to cut: in 1980 government spending reached just 50 per cent of what it had been under Allende, leading to further unemployment and fewer social resources at a time when they were acutely needed. The government almost entirely defunded social services. The social security system was privatised, health care changed to a pay-as-you-go system and public schools[19] were replaced with vouchers and chartered schools; even cemeteries were privatised.[20]

Pinochet's government maintained these policies until 1982 when the Chilean economy crashed – debt exploded, hyperinflation took hold and unemployment rocketed to 30 per cent. Pinochet was forced to re-nationalise several companies. Naomi Klein points out that in retrospect Pinochet's saving grace was that he had never privatised the state copper mine company CODELCO, which generated 85 per cent of Chile's revenue from exports. Copper from the Great North saved the country from complete financial ruin.

However, those profits went to the government and wealthy investors, while workers in the north felt the brunt of economic problems created by extreme 'free market' reforms; they were in large part among the 45 per cent of citizens who had fallen below the poverty line by 1988. Pinochet's regime was finally defeated in a democratic election in 1989. However, subsequent democratically elected administrations intensified the export-oriented neoliberal reforms, though with less violent and totalitarian control.

These histories of exploitation and violence give Northerners a certain character, particularly in terms of their sense of citizenship. For many Chileans, the legacy of the Pinochet regime has left a void in political life in the North, as people try to distance themselves from national politics. Yet at the same time memories of the labour movement that began with nitrate workers remain a strong organising principle for Northerners, who understand themselves as similarly exploited for the benefit of those living in Santiago or who take the profits abroad. Nitrate-era imagery even figures prominently in memes that declare northern pride. Such memes that reference local historical politics are popular and posted by social media users in order to highlight their identification as Northerners. These memes differ drastically from those that comment on national politics, which often involve Photoshopped pictures of current politicians in ridiculous situations, overlaid with funny text and commentary. Being Northern is thus often about claiming political citizenship on a local level while eschewing national politics, and Hospiceños use social media as a key place to express this kind

of citizenship. Citizenship is about more than politics, however, and this history equally affects how Hospiceños see their participation within the nation–state in a variety of formations – among them sociality, economy, politics and legal rights.

Viva Chile?!?

In many ways the legacy of the Pinochet regime made Chile precisely what Friedman hoped – a neoliberal example. Following the vote to end Pinochet's rule, subsequent democratically elected administrations have maintained neoliberal economic policies, through export promotion strategies and continued privatisation. The government's role in the economy is mostly limited to regulation, although as noted the state continues to operate copper giant CODELCO and Banco Estado [State Bank]. Since 2006 Chile has boasted the highest per capita income in Latin America, with a purchasing power parity value of $21,948 between 2010–14,[21] demonstrating the apparent success of these policies.

As economic anthropologists point out, neoliberalism is not just about faith in the 'free market'; it also includes the reconfiguration of ideological assumptions about the role of individuals in society.[22] These ideologies become embedded in normative social scripts.[23] Rather than people expecting the government to provide for their basic needs, they expect government to act merely as a referee for private business. Individual responsibility often becomes a cultural value, promoted by political rhetoric which suggests those in need of social safety nets are failing to contribute to society, as well as similar but more subtle forms of discourse within education and advertising.[24]

Advertising in fact plays a major role in the adoption of neoliberal ideologies as cultural norms.[25] When governments deregulate markets, they often become saturated with consumer products. Companies hope to distinguish their goods through advertising, which often appeals to certain forms of identification – middle class or luxury, masculinity or femininity, family or regional values, alternative lifestyles or youthful enjoyment. Specifically neoliberalism shifts the meaning of 'citizenship' so that citizens often participate in the political process through the purchase of commodities, in ways that reinforce privatisation and eroded citizenship rights.[26]

These values are often evident on social media as well. From motivational memes which encourage viewers to take responsibility for achieving their goals despite difficult life circumstances to selfies that

conspicuously display the trendiest brand-name accessories, neoliberal ideology has pervaded even this seemingly unencumbered media form. This is not the case for the majority of social media users in Alto Hospicio, but is certainly true of most users in Santiago and even Iquique.

Given the ways in which the private mining industry and tax-free imports have bolstered Iquique's economy, it could be considered a poster city for neoliberal policies. Private industry continues to thrive in the area. Private banks and healthcare companies provide infrastructure, while nationally and internationally known private businesses such as Walmart (known as Lider in Chile), Home Depot (known as Sodimac) and McDonald's provide commercial outlets for residents. The main attraction in Iquique is the beach flanked by restaurants and nightclubs. The Dreams Casino is a popular spot not only for slot machines and craps tables, but also for weekly concerts. Of course the Zofri on the north side of the city is popular for buying imports, ranging from children's toys and clothing to new HD flat-screen televisions and cars from China, Japan and the United States. Iquique even boasts an 'American-style' mall with over 100 shops and a ten-screen movie theatre. The food court offers international favourites such as KFC and Yogen Fruz, as well as national chains such as Doggis serving *completos* [hot dogs]. In contrast to Alto Hospicio, a handful of cafes, restaurants and bars offer free Wi-Fi to patrons.

The absence of Wi-Fi in Alto Hospicio may be indicative of a more extensive difference. Alto Hospicio is a city built within, and because of, the economic outcomes of neoliberalism, but the consequences of this ideology have been quite different here than in most places. Businesses of the sort that can afford extensive advertisement have never placed importance on attracting Hospiceños as potential customers. This has lessened the influence of 'keeping up with the Joneses'-type class consciousness; Hospiceños generally see little value in conspicuous consumption and feel no shame in seeking assistance from social services. Consequently Hospiceños retain their expectation that the government should provide services such as housing, healthcare and education. The lack of large-scale advertising has also left the market open for the types of small, family-owned companies that are often eclipsed by larger businesses. In Alto Hospicio this trend promotes the valuing of community over 'outsiders', and means that to a large extent the association of consumer products with certain forms of identification has never taken root.

In contrast most Chilean cities, including Iquique and Santiago, represent a neoliberal system as it was intended by economic architects such as Friedman – one in which private businesses provide for most

Fig. 1.8 Billboard advertisement in central Iquique for Zofri Tommy Hilfiger shop

needs and people are 'free' to consume products that they see as contributing to their sense of self. And this neoliberal system is central to the fact that most middle- and upper-class Chileans see their country as more 'Europeanised' or 'Americanised' than its neighbours, citing the stable government, military and economy, as well as the world-class cosmopolitan city of Santiago.

The International Monetary Fund and World Bank have used Chile's free-market economy as a model for the region.[27] Santiago, in particular, provides proof that the 'modernity' associated with neoliberal economics places Chile among the most highly developed nations of the world.[28] Santiago is home to the best Chilean universities, which represent some of the highest ranked educational institutions in Latin America.[29] It is also home to the national football team, which presents a serious challenge to the best teams in the world. In terms of art and literature Chileans have made contributions to world-renowned collections, and Santiago boasts museums and historical sites showcasing the lives of well-known Chileans

such as Pablo Neruda and Isabel Allende.[30] Musicians such as Victor Jara and Violeta Parra are still revered, and recent popular acts such as Gepe have gained international fame. Chile is also home to annual music festivals such as Lollapalooza Chile, which attract musicians from around the world and hundreds of thousands of their fans.

Most Chileans in central urban areas conceptualise the nation not as *mestizo* [mixed race] nor multi-ethnic, but as homogenous, and in fact homogenously white.[31] This homogeneity and claims to modernity 'bind the nation with a sense of "exceptionalism", as most Chileans look at their country as a beacon of stability amidst a rather chaotic set of neighbouring countries'.[32] Yet many Chileans in central urban areas also identify the poor living conditions in places such as Alto Hospicio as a symptom of national decline that conflicts with with a more prevalent national narrative of modernity.

Life on the margins

While Santiago appears comparable to cosmopolitan cities on any continent, Alto Hospicio looks and feels like another world. To travel the 2,000 km between Alto Hospicio and Santiago takes about 30 hours by bus. Hospiceños experience this profound distance as both physical and figurative. Rather than perceiving themselves to be a part of this developed nation, Hospiceños view themselves as representatives of the country's inequality. Chile's high per-capita income is mitigated by its standing in 2015 as the developed nation with the highest inequality in the world.[33] So while median income may be around US$20,000, even the most prosperous Hospiceños – those who work in mining – make only about US$8,000 a year. Those working outside the mining industry usually earn about half of that. Residents of Alto Hospicio watch as most of the profits from their region are funnelled back into economic transactions in the national capital or sent abroad. Many Hospiceños feel ignored by national politicians and exploited by international industry.[34] To them Santiago often appears as a symbol of the economic exploitation of the region, and of the nation's economic inequalities in general.

Lessie Jo Frazier suggests that a unifying force for northern Chileans is their 'profound sense of abandonment and persistence'.[35] This sense of abandonment in many ways conditions the ways in which Hospiceños understand their position within the nation-state. Through a lens of marginality, many Hospiceños see themselves as peripheral, defined in contrast to the perceived centre of Santiago. Marginality is often used as a

category of analysis within the social sciences, generally to describe the conditions of people who struggle to gain societal and spatial access to resources and full participation in political life.[36] In this view marginalised people are socially, economically, politically and legally excluded, and therefore vulnerable to a host of forms of structural violence.[37]

Marginality is defined and described along both societal and spatial axes. The societal axis focuses on demography, religion, culture, social structure, economics, politics and access to resources, emphasising the underlying causes of exclusion, inequality, social injustice and spatial segregation of people.[38] The spatial dimension of marginality is primarily based on physical location and distance from centres of development – areas lying at the edge of, or poorly integrated into, local, national and global systems. The two axes intersect when marginal spaces are considered dirty and unhealthy, dangerous, disorganised and threatening to the established order, leading to depictions of the inhabitants of marginal *barrios* themselves as marginal people: 'backwards, aggressive, and primitive or uncivilized in nature, qualities that their geographical position on the urban periphery supposedly reflects'.[39] In both senses marginality is not a static state, but a process that emerges and evolves with time in various types and scales in socio-economical and geo-political environments. Thus a person or group is not marginal, but *marginalised*, actively positioned as such through the deployment of power.[40]

Yet, as Goldstein points out, anthropological writing about marginal areas – sometimes referred to as *barrios*, *favelas*, *barriadas*, *colonias populares*, shantytowns, encampments or *tomas* – have contested assumptions that marginal urban citizens are alienated and lacking agency to effect change over their circumstances.[41] Instead anthropologists have pointed out the ways in which marginalised peoples and places are economically and culturally integrated into larger urban society, effectively engaging in struggles to improve their living conditions.[42] Yet despite this work the idea of marginality continues to figure prominently in popular and official ideologies of spatial and cultural identification and categorisation in urban Latin American society.[43]

I use marginality here then not as a theoretical principle, but as a way that Hospiceños identify.[44] In actively distancing themselves from Santiago – both in daily life and through their online activity – Hospiceños identify as marginalised citizens through visual modes, discourses about personal relationships, ways of configuring their associations with production and consumption and, perhaps most importantly, in their engagement with politics and national citizenship. In this

sense marginality is neither an analytical term nor a static identity, but something collectively and actively produced.[45] Through this production Hospiceños categorise themselves as that which is 'unlike the centre', while also instantiating a self-understanding[46] that includes their social location as peripheral.

Evelyn, who moved to Alto Hospicio from Antofagasta in the early 2000s, often used social media to express her experiences as ones of abandonment by the state. Having lived in a *toma* for almost a decade, she often complained about the lack of social services available, blaming their absence on the national government. Evelyn's husband Marco worked a seven-day shift in a mine about four hours from Alto Hospicio, leaving her alone with her ten-year-old son every other week. During this time Evelyn devoted most of her time to local campaigns, for example opposing a sewage plant in her new neighbourhood or advocating for more children's playgrounds. She had also been involved in recent mayoral campaigns and helped with the 2012 census. She explained to me:

> I know that if I want something done, I have to do it. The politicians aren't going to help me. Santiago isn't going to help me. But I'm a fighter and even though they are absent I persevere.

In this complaint Evelyn both identifies herself as speaking from the periphery and distances herself from 'Santiago' as a symbol of the centre. These sentiments are reflected in her social media use. Evelyn created a Facebook group to unite 'outraged' Alto Hospicio residents for social justice causes. These include the sewage plant and playgrounds mentioned above, as well as simply spreading information about corruption in the regional and national governments. She also uses WhatsApp extensively to organise citizens' meetings, most recently focused on bargaining collectively for better electricity rates. Although her personal Facebook page is peppered with funny videos and pictures of her young son, it also has a strong base in political memes and videos that denounce hypocrisies and inequalities perpetuated by the national government.

Through her online presence Evelyn both claims identification as a marginalised citizen as well as speaks back to the types of institutional and governmental power she believes lie at the root of these inequalities. Evelyn identifies herself in contrast to what she sees as an exploitative Chilean government and positions herself alongside her neighbours as 'outraged', marginalised citizens advocating for their rights. In doing so she positions committed individuals as 'good citizens' while positioning the government, and those who support or benefit from its corruption,

as part of a national problem. She demonstrates that her allegiance is to the local community rather than a form of national citizenship. By doing so through social media she positions Facebook and similar platforms as the appropriate space in which these public-sphere debates should take place.

Erasing difference, highlighting normativity

To return to Nicole, her Facebook post declaring herself *Hospiceña, Nortina* and only then *Chilena* did much more than highlight her allegiances. Perhaps more importantly, it erased certain other possible forms of identification that might have been salient. Her gender is implicit in the Spanish noun formation, in which personal descriptors ending in 'a' indicate a woman as antecedent (i.e. Nortina-feminine vs. Nortino-masculine, or sometimes used as a gender-neutral form). Yet she does not draw attention to her gender here, as she could have done by saying 'Soy una mujer Nortina' [I am a northern woman]. Equally she emphasises location, rather than a particular political party or stance. Location also replaces the possibility of identifying her Quechua indigenous origin in this post, which in many contexts, even in other regions of Chile, would be relevant to themes of citizenship and nationalism. I only learned that Nicole had Quechua ancestry after knowing her for more than a year, when she filled out a survey and I watched her enter 'Quechua' into the ethnicity box. For many Hospiceños, the elements of their personal experience with which they identify are distilled both on social media and in daily life.

Of course, all people at all times erase aspects of themselves that could form the basis of a particular way of identifying. Identification is an active process, which often involves highlighting certain aspects of the self and reducing the emphasis on others, sometimes in ways that exceed conscious awareness.[47] The point is not that Nicole neglected to mention some of these aspects, but rather that there was a clear trend in Alto Hospicio to ignore or erase particular forms of identifying – those commonly connected to 'identity politics' – such as indigeneity, non-traditional gender ideologies and class differences. And these erasures are further amplified on social media.

Rather than aiming to distinguish themselves from others, many individuals in Alto Hospicio highlight their desire for normativity. Viewed from an anthropological perspective, the concept of normativity refers to the everyday assumptions individuals make in a particular

context, and the way in which they consider these assumptions to be natural. These assumptions have to do with what is considered correct or incorrect, just or unjust, appropriate or inappropriate, right or wrong. Hospiceños have a sense of what their neighbours consider to be appropriate, and they generally follow those guidelines rather than challenge them. Of course such guidelines exist, and are followed by, most people in any context. These guidelines change according to the society or situation in which they emerge, but the fact that most people abide by them is precisely what makes them normative.

In Alto Hospicio, however, those guidelines often encourage individuals to fit in rather than seek to distinguish themselves from others. Bourdieu famously argued that those with assets such as education and cultural knowledge create a sense of 'distinction' for themselves by determining what constitutues taste, and thus naturalising differences between 'high culture' and 'low culture'.[48] Upward mobility, then, is about not just economic means but expressing distinction through taste as well. Yet residents of Alto Hospicio actively reject attempts at distinguishing themselves from others in the community. The norm of Alto Hospicio then, is doubly normative: most individuals abide by 'correct' behaviour which requires them to refrain from overly distinguishing themselves from others.

In looking at Hospiceños' online media, it is clear that a general sense of being marginalised is highlighted; forms of identifying that could compete, in contrast, are often left in the background or even erased. In fact the erasure of ideologically discordant elements from identification is key to its social utility. This erasure is particularly important in Alto Hospicio because identifying as marginalised, rather than more specific subaltern forms of identification, excludes those who are most marginalised in favour of a more general, normative sense of marginality.

For Chileans living in Alto Hospicio, people are rarely categorised as anything other than *mestizo*,[49] or of mixed Spanish and indigenous ancestry. Many Hospiceños in fact expressed sentiments such as 'pure races do not exist here'. Southern and central Chileans who have moved to the city quickly integrate with those born in the north. Census projections suggest that around 2,000 individuals from the Mapuche indigenous group of southern Chile live in Alto Hospicio,[50] but they are essentially absent from public discourses and understandings of race and racial relations,[51] as are Afro-descended Chileans. Both groups are considered merely Chileans, blending into the tapestry of brown *mestizo* shades that make up the human landscape.

However, certain other nationalities are racialised instead. Bolivians and Peruvians living in Chile often do not conform to the idealised *mestizaje* (*mestizo*-ness). While their skin colour does not differ significantly from darker Chileans they often have phenotypic differences evident from their Aymara ancestry, for example a shorter, broader stature and what many refer to as 'indigenous facial features' including close-set eyes and a large nose. In contrast to Mapuche, who are considered to be phenotypically closer to the *mestizo* standard, Aymara are thought to appear more indigenous, falling outside of the *mestizo* spectrum. Bolivians and more indigenous-looking Peruvians are also characterised as speaking slowly and softly, and many Hospiceños claimed they have a particular unpleasant odour. 'It must be their food!' one older Hospiceña woman explained.

Iquique boasts a *barrio boliviano* [Bolivian neighbourhood], several Colombian social clubs and countless Peruvian restaurants which often function as Peruvian social centres as well. Alto Hospicio by contrast has very few public clubs or social spaces dedicated to foreign migrants. While some immigrants such as Colombians and Peruvians from urban areas integrate more easily into social life, Bolivians are

Fig. 1.9 Graffiti reading '*Cholos fuera! Bolis, pata raja! Monos culiao*' [trans: 'Cholos (urban indigenous Andeans) get out! Dirty feeted Bolivians! Fucking monkeys']

excluded from the collective sociality and subject to discriminatory discourses. Bolivia, a nation in which 60 per cent of citizens consider themselves indigenous (and up to 74 per cent in the Altiplano region that borders Chile), is also ranked as the poorest economy in the continental Americas, outranking only that of Haiti in the hemisphere.[52] Bolivian immigrants are often treated by Chileans as second-class residents of the city.

This discrimination is closely associated with the politics of indigeneity in Chile, and the benefits provided to indigenous Chileans as a 'vulnerable category'. Many Chileans believe that individuals with indigenous surnames (whether citizens since birth or naturalised citizens) have greater access to social services such as public housing, healthcare and even education (although this perception is actually incorrect). In the racial logic of Alto Hospicio, the categories of 'indigenous', 'Bolivian' and at times 'Peruvian' are conflated to mean a foreign racial underclass; terms are often used interchangeably, so that nation of origin stands in for race.[53] By grouping these international migrants into a single category they are racialised and stigmatised, much as local people view economic migrants around the world. Racial tensions rarely manifest in violence, but stigma and outright discrimination against Altiplano immigrants is undeniable. As one informant mentioned to me, 'Racism is the same here as everywhere, except we don't hit them, we just ignore them. We don't insult them to their faces, we do it behind their backs.' Ignoring immigrants often serves to exclude them from public social life and the imaginary of racial homogeneity that dates to the colonial period. As Bosniak notes, notions of belonging have inherently exclusionary tendencies: some individuals must inevitably be constructed as 'outside' the community in order for the 'inside' to have value.[54]

While Colombians, Peruvians and Bolivians often retain strong connections to their countries of birth citizenship, hoping to return home after benefiting from northern Chile's economy, nationality-based groups in Alto Hospicio do not exist in the public eye. Though Colombian men are known to socialise on a particular corner of the central plaza, and in neighbourhoods on the outskirts of Alto Hospicio one can often hear parties playing Bolivian Morenada music on weekend nights, these social groups do not form official organizations or publicise their activities online or offline. They certainly do not use public social media to identify themselves as members of such social groups. While more than 11 per cent of Alto Hospicio residents are of Aymara descent, many of whom are Chilean by birth, they do not organise using indigeneity or Aymara ancestry as a way of identifying. The director of the small

Consejo Nacional Aymara [National Aymara Council] office, which occupies a nondescript building a block from the former city hall office, notes that their services are drastically underused.

This is in part because identifying as Aymara, even for Chileans, aligns oneself with foreignness and is understood as contrary to discourses of progress. In fact many people do not even know that they are indigenous until they discover their surname on a government-published list of names of indigenous origin. As noted above, appearing on this list classifies the individual as part of a 'vulnerable category' allowing them access to indigenous land and university scholarships, although not to government-funded housing and subsidised heathcare, as many assume. But instead of providing a rallying point for political rights, as it does in southern Chile's Mapuche areas,[55] indigenous identification in the North is easily glossed over or utilised in depoliticised ways only to gain access to certain governmental advantages.

Forms of identification associated with gender and sexuality are often similarly de-emphasised. A number of Hospiceños, both men and women, comment that the local women's centre is unnecessary. Indeed most of its programming involves courses such as knitting or health-conscious cooking classes in which anyone could enrol. Many Hospiceños consider the centre to be unnecessary because they believe most women feel empowered in their families and community; they see issues related to poverty and violence as affecting men and women equally. In their perception men and women have similar economic problems and face similar rates of intimate violence. Both are equally likely to be assaulted if walking alone at night. Popular discourses value women as mothers, as well as recognising women's need to have friends and a social life outside of the family. Many men also comment that they feel their wives and girlfriends are more empowered than themselves, as women generally manage finances and organise shared time within the relationship. Several young men even joke that women see girls' nights as a human right, whereas a man going out with his friends is considered highly suspicious and is often regulated by his female partner.

For lesbian, gay or bisexual individuals in Alto Hospicio, identifying as such may cause a stir within the family but is not generally publically shamed. A number of young men and women are quite open about their identification as lesbian or gay on Facebook and Instagram, often using hashtags such as #lesbichile or #instagay in their posts. Most are open with their families as well and maintain a normative lifestyle, with expected forms of wage labour aligned with their gender. It seems that only when individuals – whether they identify as gay, lesbian, bi or

straight – adopt roles that cross or confound gender lines are they considered to breach social conventions.

For example, when 18-year-old Michelle told her friends that she was interested in women they initially teased her, asking if she would cut her hair, stop wearing skirts and give up studying graphic design to work in construction. The group continued to invite her along for their outings to Iquique and weekend parties, however, and after a few months hardly any of her friends thought of Michelle any differently than before. Even when she used the #lesbichile tag on Instagram, it was hardly worthy of note by her friends. In contrast lesbians who take on a 'butch' appearance and seek employment in what are considered masculine forms of work, such as mining or construction, are generally rejected by both their male colleagues and by women's social circles.

Men are subject to similar gender constraints. Pablito, a gay man in his late twenties, is happily open about his sexuality with his family. However, his mother has no idea that he is involved in organising a weekly drag performance show in Iquique. He manages performers through a separate Facebook profile using his stage name, and vigilantly controls the privacy of those posts to ensure his mother never discovers this aspect of his life. So gay and lesbian Hospiceños are generally accepted in the community, as long as they do not upset the apparent homogeneity of the community or call too much attention to themselves.

Perhaps most importantly, class distinctions in Alto Hospicio are also downplayed in an attempt to homogenise. Most people consider themselves to be in the bottom half of income in the country, but very few place themselves in the bottom 25 per cent (though official figures suggest that poverty in the city may be as high as 40 per cent). Key to this sense of class homogeneity is a collective rejection of conspicuous consumption. People who do make expensive purchases often become targets, judged and viewed with suspicion by their neighbours.

I often ate lunch with Vicky, a 50-year-old woman who had lived in Alto Hospicio for 20 years. She and her husband Jorge, a miner, moved in during the first major wave of new residents in the 1990s, along with their two young children, Alex and Gabriela. By the time I met them Gabriela had a son, Samuel, and her fiancé José had moved in with the family as well. One day, as I ate some of Vicky's famous pesto noodles, she mentioned that her neighbours across the street were building a third storey on to their home. 'They've only lived there a year,' she told me. 'Where are they getting the money? They must be narco-traffickers,' she conjectured sincerely.

On another occasion she and Gabriela spoke about another neighbour, an example of someone who had recently moved up the sand dune from Iquique and did not conform to the norms of Alto Hospicio. 'I see her Facebook posts and she's always buying expensive clothing, wearing jewellery, new shoes, new furniture. It just seems like a waste of money to me, always posting pictures, always showing off.' Gabriela jumped in, 'It's like she's *flaite* but not *flaite*.'

Flaite was a term I heard often, either in warnings or in jokes about slang terms. Something akin to 'gangsta' or 'ghetto' in English, *flaite* is both a noun and an adjective; it describes young people from poorer families, who speak in uneducated slang and are considered aggressive if not dangerous (for example, 'That *flaite* might steal your wallet' or 'Don't use that word, it's really *flaite*'). What prompted Gabriela to make the comparison with their neighbour, however, is the idea that *flaites* are known for wearing flashy brand-name clothing. In fact, that is usually how they are identified.[56] Particularly because their neighbour often posts pictures of her purchases, her 'showing off' is considered just as tactless and flashy as *flaites*. Both Vicky and Gabriela thus clarified the boundaries of what was acceptable to them in terms of home architecture, as well as self-presentation, by pointing out instances of going beyond the norms. Affronts to normativity have social consequences, most of which are reflected in moments such as Vicky and Gabriela's gossip at lunch.

Individuals such as Vicky's neighbours, with new-looking, pressed clothing from department stores in Iquique, reveal their relative affluence. Almost everyone in Alto Hospicio wears mostly second-hand clothing, bought at the local Agro market, though individuals of lower income use the same few worn T-shirts for years. Only their tattered state distinguishes them from the sea of people in simple T-shirts paired with jeans, khaki work trousers or shorts. It is rare to see a woman in high heels or a formal skirt, even when at work, while in the winter fleece jackets are common. Shoes are most often athletic styles such as Converse, Reebok or Nike brands, and in the colder months most women wear faux leather boots. Some teens adopt 'heavy metal' or 'punk' styles, but this usually means that they wear more black than colour, and occasionally have visible tattoos. Even haircuts rarely stand out from the crowd, with men sporting trimmed cuts and women long wavy styles.

Similarly, most homes conform to one of a few standard styles. In contrast to the three-storey home nearby, Vicky's house was like those of most established families with a steady income in Alto Hospicio. These houses have between three and five bedrooms on two levels, one

Fig. 1.10 Women's clothing styles for sale in Alto Hospicio's Agro market

bathroom and tiled floors. In a middle bracket, newer families often live in small, three-bedroom apartments in large complexes, such as the one where I lived. Though the apartments are quite spacious for one or two people, most families have at least three generations in the same apartment, often with five to seven members of the family sharing the three small bedrooms. In poorer neighbourhoods homes are more likely to be built by the families who live in them, sometimes without legal right to the land. These houses have concrete floors and one or two bedrooms into which they fit multiple beds like the pieces of a jigsaw puzzle.

Fig. 1.11 A barber's shop display of possible hair styles

Living arrangements clearly vary widely and are usually organised by neighbourhood: the relatively wealthier families live in homes in the central, oldest parts of the city, and the poorest live on the outskirts of the city in *tomas*. In part, however, architecture helps to homogenise even these differences, as almost all homes, whatever the neighbourhood, have a high fence or wall surrounding them, with some sort of sharp points deterring unauthorised entry. These fences serve not only to provide security; they also obscure views of the home, making differences in quality and size hard to perceive from outside.

Within the home, certain material goods also help to identify social class. Electronics are considered necessary, even as prevalent cultural norms in Alto Hospicio eschew the types of consumerist ideals that characterise the middle classes of middle and higher income countries. A computer of some sort is essential for all but the very poorest of families, while a new Xbox is a true sign of means. While the prevalence of somewhat new technology may seem at odds with identification as marginalised citizens, they buy these items relatively cheaply from the Zofri mall. They are prioritised over other consumer goods, including clothing, new furniture and even seemingly basic necessities such as hot water or repairs to damaged ceilings and walls.[57]

Aside from electronics, most home goods are purchased second-hand. Families buy appliances such as used refrigerators and stoves at the outdoor market of Alto Hospicio, or online through Facebook groups such as 'Buy and Sell Alto Hospicio'. For most families televisions, stereos, video game systems and smartphones are among the few expensive consumer goods that are considered important despite a family's limited financial resources. These represent a significant expenditure in a community where many people support a family on the national minimum salary of $210,000 CLP (Chilean Pesos) a month, or about US$340. As social media has become ever more important to daily life, these devices that Hospiceños use to connect are now considered essential.

Homes are especially important because there are few social spaces for entertainment and consumption in Alto Hospicio. While neoliberal economic contexts are usually characterised by a proliferation of businesses catering to entertainment and lifestyle, most businesses in Alto Hospicio are family-owned, and few of these families have ambitions for a business any larger than that which will sustain their single family on its profits. Most restaurants operate as take-away windows, though the city's eight Chinese restaurants are popular for a sit-down meal. The city has one pool hall, two bars and one strip club (for men only). There are no gourmet restaurants, nor any department stores, cinemas, bowling alleys or casinos. Nor, in contrast to many Latin American contexts, is the central plaza used much as a social space for meeting and conversing with neighbours. Instead the private home is the hub of social life.

In most families, meals are especially important for spending time together. Breakfast is less formal, but the whole family returns to the house for lunch, the largest meal of the day. Over dishes such as rice and meat or noodles with tuna and tomato sauce, the family takes a break from daily work to share an hour together. Usually only the miners,

working several hours away from the city, are absent. There are plenty of small lunch restaurants in the centre of Alto Hospicio, but these usually cater to men from other towns who work in Alto Hospicio doing construction. Residents prefer to pick up popular pre-made meals of fried chicken and fried potatoes, or *colaciones* of noodles, vegetables, meat and salad, available at small take-away windows all over the city, to eat at home with the family.

Evening tea, known as *once* [pronounced 'own-say', like 11 in Spanish], is also a family affair, accompanied by bread and cheese, avocado or sandwich meat, while the radio or television relays the day's news. The family, as well as friends or extended family who often come from another neighbourhood in the city to partake, traditionally linger for hours at the table, a time called *sobremesa* in which they discuss the news or family and neighbourhood gossip. In recent years, however, adolescents often race away from the table after eating to return to Facebook, and even younger children ask to be excused in order to continue a game of Angry Birds. With the ubiquity of social media, public spaces are no longer necessary for socialising. One can be connected to any number of friends and family without leaving the home.

These customs also reveal the ways that social class bears on daily life in terms of economic resources and comparable social standing. Social class also helps to shape cultural norms and cultural outlook.[58] In this respect most Hospiceños are quite similar, subscribing to the same unassuming normativity as most of their neighbours. They identify with a general, locally based sense of marginality, which deemphasises neoliberal accoutrements of big homes and fancy clothes in favour of commonalities shared by all members of the community. Almost all individuals in Alto Hospicio, even with their personal differences, still fit into this scene. Their life plans rarely involve exploits other than finding a job and a partner, making a home together, raising children (and maybe a pet) and enjoying cable television in the evening on a large flat screen, while chatting with friends on a Samsung smart phone.

Very few people finish a university degree. For young men the mining industry is more lucrative and has more job stability. Although contracts usually last between six months and three years, there always seems to be another mining operation in need of workers. Most are content to remain in Alto Hospicio, rarely expressing desire to move to Iquique, let alone to another region. Few people aspire to the types of higher education or employment beyond options available in the region. Though most young people can quote from Hollywood films, few have a desire to become proficient in English or Portuguese. Younger adults

particularly love making fun of the Open English commercial for language learning on television, mockingly repeating English words from the advertisements such as 'hospitalisation' and 'Mr. Fitzpatrick'.

Though travelling within the region is common, taking a trip of more than a few hours by bus is considered a rather big deal. Trips to other parts of Chile usually involve bus rides of more than 24 hours and cost at least $60,000 CLP or US$100 for a round trip (about one-third to one-fifth of the cost of flying). While some young people hope to move to Santiago (particularly those who have family there), most Hospiceños who grow up in the North see Santiago and other large urban areas as full of crime and chaos. While they do not necessarily believe Alto Hospicio to be ideal, they think of it as a middle ground that offers the conveniences of urban life (as opposed to the small mining villages) without the annoyances of crowds on the Santiago metro, *barrios* full of petty criminals and the pollution and dirt associated with city life. In fact many at times refer to the national capital as 'Santiasco' (*asco* is the Spanish word for disgusting).

One popular meme, shared as simple text on a white background, portrays the vision many Hospiceños have of Santiago. The text says:

> Living in Santiago is. . .1) Wake up at 5 am, kiss your children while they sleep and arrive at work at 8am while trying to avoid being assaulted. 2) Stop working for half an hour to eat crappy food or drink coffee while trying not to be assaulted. 3) Leave work at 6:30 and arrive home at 9, while avoiding assaults. 4) Kiss your children while they sleep. 5) Shower, eat something, and try to sleep for 6 hours. Thanks but I think I'd like to stay here in my region.

Through actions that portray all Hospiceños as similar, and those that distance them from or express distaste for Santiago, they create a binary between the normative, marginalised people with whom they identify and a wholly different, consumerist, cosmopolitan, exploitative and 'disgusting' world of Others. Ariztia[59] points out that in Santiago both the location of a newly purchased home and the consumer items residents use to decorate it are closely connected to a sense of 'distinction',[60] as well as belonging and identity.[61] These are 'points at which [class] categories are actually negotiated and performed'.[62] The general anti-consumerist discourses and aesthetics of Alto Hospicio combine with tendencies to group all within a general sense of marginality rather than appeal to subdivided senses of identity politics. In so doing they construct a binary between the good, hard-working but exploited and

marginalised population of Alto Hospicio and the superficial, consumerist, capitalist, exploitative imagined residents of Santiago.

By conforming to the aesthetic and (non)aspirational normativity of Alto Hospicio, residents socially locate themselves as belonging to a marginal place, content with a marginal lifestyle, and even express pride in identifying as marginal. They do not highlight their autonomous individuality, but rather present themselves as closely connected to networks based on family, friendship, work relationships and community engagement. In terms of race and class, individuals in Alto Hospicio put forth a great deal of effort to maintain a sense of homogeneity, rather than emphasising distinctions between different social groups.

They achieve this, to a large extent, by highlighting ways of identifying that support ideals of community and working-class pride, rather than forms of identification that distinguish between nationality, race or ethnicity, or forms of lifestyle that are rooted in consumption. So while a place with so much migration and mixture might easily display significant cultural clash, jostling and juxtaposition of histories, traditions, customs and concerns, these differences are neutralised in Alto Hospicio into a visible normativity. Such normativity is particularly visible through Hospiceños' use of social media. Identifying with a general sense of marginality is especially highlighted, while other more particular forms of identification are erased.

Ordinary people, extraordinary citizenship

These normativities, both online and offline, are key to citizenship in its various strands. Being a 'good' citizen in most neoliberal contexts involves blending into the population, as a 'proper' member who reproduces, finds employment and aspires to 'possessions, property and wealth'.[63] Yet in Alto Hospicio residents place importance on distinguishing themselves from what they see as a dominant yet exploitative form of mainstream citizenship, instead positioning their marginalised citizenship as that which represents 'real' Chileans.

Like many Hospiceños 30-year-old Francisco does not post much original content on his Facebook page. His infrequent status messages rarely even amount to a full sentence. More than half of his profile pictures are photographs of celebrities, cats or cartoons, rather than images of himself. Those that do feature Francisco portray him in his work uniform from a loading dock at the port or in fatigues from his time in the military. However, he does post multiple memes, videos and music every

day. Most of the memes in particular play on themes of marginality and difference with a sense of humour. One meme he posted portrays Adam and Eve in the Garden of Eden. Eve asks, 'Adam, where do you think we are?' to which Adam responds, 'We are in Chile, Eve. Don't you see that we're without clothing, without food, without a house, without education and without hospitals? And they still tell us we're in paradise!'

In posting such memes Francisco uses his Facebook page not only to identify himself as being marginalised, but to position this marginality as central to his sense of what it means to be Chilean. This particular meme positions the real Chile and real Chileans as those who go without things such as hospitals and education. Rather than suggesting that Alto Hospicio is not included in the imagined icon of Chileanness, Francisco, like many Hospiceños, repositions his marginality as true Chileanness. The political and economic elite of places such as Santiago, meanwhile, are positioned as outside of this sense of belonging – those who *tell* others that they're in paradise.

In a sense Francisco here redefines what Chilean citizenship looks like from a marginal perspective. When Hospiceños oppose themselves to their imaginary of Santiago residents, they claim being marginalised as the norm, the condition of the *real* Chile. In doing so they mark their own citizenship as that of 'good citizen-subjects' – contrasted with those who claim citizenship based on identity politics rather than identifying in solidarity, consumption rather than hard work and working-class identification and, of course, political power rather than marginalised subjectivity. They move beyond identifying with legal status and political rights to highlight public participation and feelings of belonging instead. They privilege the city above the region and the region above the nation, and emphasise cultural citizenship above political citizenship. The majority of Hospiceños also prioritise a normative sense of being marginalised above the identity politics of gender, sexuality and indigeneity.

In identifying themselves as marginalised and in portraying this marginality as ordinary, Hospiceños reverse the logic of centre and periphery. They seek to position themselves as 'true' Chileans, while those in the 'centre' of the country – symbolised by Santiago – are cosmopolitan Others. This is possible in part because of social media, which allows them a space to express such a reversal in which theoretically those in Santiago or other world centres may see their posts. Hospiceños overwhelmingly concentrate their social media use on local concerns in which normativity rather than distinction is valued. Hospiceño normativity emphasises unassuming aspirations and utilitarian life goals

focused on the local community, with very little emphasis on anything that could be considered fantasy. Thus there is something quite extraordinary about the ordinariness of Alto Hospicio.

The form of this project

The extraordinary nature of the ordinariness of Alto Hospicio is something that I came to recognise over time. Colleagues and acquaintances in Santiago, and even Hospiceños themselves have questioned my choice of such a marginal city as a field site for this project. In response, I usually explain that studies of social media are most often based in metropolitan centres, including New York, Madrid, Cairo or indeed Santiago, where new forms of capitalism, cosmopolitan identities or mass demonstrations are forged in online spheres. In looking at the use of social media in these already cosmopolitan contexts we see digital technologies as forces of global citizenship, homogenisation, democracy and modernity. Yet looking at social media in peripheral places reveals how individuals' adoption of social media in everyday life contests these grand narratives of homogenisation. This book explores the ways in which Hospiceños use social media – ways that conflict with and challenge assumptions about such media's cosmopolitan and revolutionary powers.

While some critics suggest that a project on social media might be successfully carried out entirely online, an important contribution of this particular project is the study of the *relationship* between what happens online and what happens through other media and face-to-face interactions. This combination is essential to maintaining the anthropological commitment to a holistic study of human beings.[64] If I had never set foot in Alto Hospicio, I would have never appreciated the ways in which the history of Chile and the region, as well as the founding of Alto Hospicio itself and its current political economy, so intricately influence how social media is used. Understanding marginalised citizenship 'on the ground' was essential for understanding it 'online'. I hope this book will contribute to a better understanding of the ways in which identification, normativity, marginality and citizenship are practiced through social media, but will also challenge essentialised depictions of social media as a universally democratising technology

This book is based on 15 months of field work in Alto Hospicio, spaced between September 2013 and June 2015. As part of this ethnographic project I lived with Hospiceños, ate with them, travelled on public buses and in private cars, attended neighbourhood committee

meetings, birthday parties and funerals, shared beers and even survived major earthquakes alongside them. I also watched what Hospiceños did on social networking sites, including Facebook (110 friends), Instagram (following 75 users), Tumblr (following 40 users), Twitter (following 30 accounts) and WhatsApp (25 individual contacts and 5 groups). Rather than taking the users' actions at face value, I also asked them to reflect on these practices in interviews, casual conversations and two different surveys. In conducting these surveys, the help of my research assistant Jorge Castro Gárate was invaluable.

I also spent many evenings chatting with my informants on Facebook messenger or planning weekend parties through WhatsApp. Liking and commenting on Facebook posts was essential to the job, though never insincere. And finally, during the writing of this book, I have constantly kept in touch via Facebook and WhatsApp in order to fact check and clarify details. Just like the in-person methods of ethnographic research described above, social media equally allows the ethnographer to interact with informants, to see how informants interact with others and to gain valuable insights into people's lives.

Because Alto Hospicio is such a distinct place, there was little point in anonymising the city. However, the names of people and some institutions that appear here are pseudonyms. I am lucky to have done this work in a city, rather than a small town, so that it is not obvious to a local reader that I am writing about their cousin's friend; I could be referring to any one of hundreds of miners who lives in the city with his wife and three children and enjoys riding his motorbike on weekends. Of course, when anonymising, some of the richness of individuals and their lives is inevitably lost. My hope is that by using information with care I have struck a balance between protecting informants' interests and providing the reader with details that allow understanding of those I write about as real humans, rather than two-dimensional characters or simply sources of 'data'.

Beyond Alto Hospicio, this project strives to be comparative. Few ethnographic projects use comparison explicitly, but this work is part of a global study in which nine different anthropologists have studied social media in the same ways, at the same time, in field sites around the world. The Why We Post series is not only able to provide in-depth analysis of social media practices in each particular place, but also to allow for direct comparison with the other sites.

Like the other titles in the Why We Post series this book follows a standard format, though keeping with themes of citizenship, marginality and normativity discussed in this introduction. Chapter 2

explores the different forms of social media used in Alto Hospicio and how these are at times conditioned by marginality, while at other times they may be used to contest the life conditions which Hospiceños find disagreeable. Chapter 3 gives clear examples of Hospiceños' images on social media, looking at how presenting oneself as a 'good citizen' is central to curation even in visual communications. In Chapter 4 I describe the ways in which Hospiceños use social media to create, strengthen and represent intimate relationships – those between family, friends and romantic partners, often in the service of maintaining forms of normativity within the community. Chapter 5 concentrates on tensions between presenting the self as a productive citizen rather than a consumer, and the ways in which these tendencies are conditioned by gender and sexuality. In Chapter 6 I look at how Hospiceños imagine their place within a wider world, and the ways in which concentrating on local concerns reinforces community solidarity and a general sense of marginalised identification rather than more specific subaltern forms of identification. Finally in Chapter 7 I condense the information I learned through both in-person ethnography and involvement with Hospiceños on social media, giving insight into how such usage is important in people's lives and exploring what this may tell us more broadly about marginality, citizenship and normativity in the twenty-first century. As this book demonstrates in various social spheres, from the family to politics, it is precisely the normativity of social media in Alto Hospicio that makes a seemingly ordinary medium quite extraordinary.

2
The social media landscape:
Performing citizenship online

On a cloudy afternoon I met Andres, Francisca and her fiancé Franklin in the main plaza before walking to a *colación* take-away restaurant. We entered the front of the shop and paid $3,000 CLP (US$5) each to the cashier, who handed us tickets to claim our food at the counter. There we peered through the cloudy glass at the possible offerings: beef, pan-fried chicken, noodles with pesto sauce, potatoes with mayonnaise, lettuce, rice and the typical Chilean salad consisting of tomatoes, onions and coriander. I gave my order of chicken, noodles and salad at the counter, then sat next to the other three on folding chairs along the wall. As we waited for the white polystyrene boxes containing our lunches to be put into plastic bags, we all simultaneously scrolled through Facebook on our mobile phones. Francisca began giggling at her cousin's new profile picture, in which she was striking an uncharacteristically serious pose. Franklin looked over her shoulder, commenting 'It looks like a Fotolog picture' – a reference to an online photo sharing site popular in the early 2000s. 'Oh, Fotolog!' laughed Andres. 'The good old days. Remember Terra? Remember chat?'

As we walked back to the apartment with our packaged lunches, Andres reminisced:

> When I was in high school we all began using chat. We had groups, so you'd just write 'hello' and throw it out there. We did that the whole time in school, everyone chatting like that. Before that it was just on paper. You pass the paper to someone during free time in school, and then they give you an answer later. How boring right! It was like that in Alto Hospicio before internet. When internet arrived it was massive. It was 1999, maybe 1998, when it started in a basic way. And people started using chat in Terra [Networks], with that horrible sound the weeeeee-dum-dum-uuuuuuuu [imitating dial-up modem noise].

After I revealed that I had never heard of Fotolog or Terra, the three began explaining to me the different internet-based communications that had been popular in Alto Hospicio over the years. The very first web portal was Terra, which allowed for text-based communication in an open chat forum. Shortly after MSN messenger arrived. Around the same time the photo-posting site Fotolog became popular, particularly because it allowed users to receive updates about their FFs, or favourite friends. Hospiceños began using IRC chat, which offered channels for individual cities in Chile. Next Latin Chat took over as the most used network; it provided different discussion forums, based on location, but also interest (beauty, films, football) or different sexual preferences (including 'erotic', gay, lesbian and group sex). This was also the time of Sexy-o-No, a site on which one could vote on others' uploaded photographs as 'sexy' or 'not'. 'I always got "sexy"!' Andres boasted as he raised his arms in victory.

With our lunches spread out on the table, and a 3-litre bottle of Coca Cola shared among us, the three continued to recount the history of social media sites used in Alto Hospicio. Around 2005 everything seemed to change, as people moved from simpler, text-based or picture-based internet interaction to platforms that combined everything – chatting, picture sharing, videos and commentary. There was a 'big jump to MySpace in those days,' said Franklin as he took a bite of potato. 'Remember Badoo?' asked Francisca and the two men nearly squealed with excitement. 'Badoo. Badoo! Oh it was much better than MySpace,' said Andres. 'And the video boom was around then too!'

YouTube and Google video sharing had become very popular, but more importantly the site El Rellano began aggregating user-uploaded funny videos of pets doing silly things and people getting hit by sports equipment. Blogs allowed people to combine all of these aspects of the internet as well, enabling users to share videos, upload their own pictures and write short commentaries. Friends could (indeed were expected to) comment. The popularity of these early blogs eventually led to the use of Tumblr. 'Finally Facebook arrived in 2008,' said Andres as he laid down his fork and refilled his glass with soda.

'So Facebook is the most important social media today?' I asked, trying to spur on the discussion. Andres explained:

Social media today, well it's a lot like a *colación*. You don't want all the same thing. It's better if you have a mixture. But you don't want just a tiny amount of everything. You have to choose. And some things are more important. For example, you can't have social media without Facebook. You can't have a *colación* without the meat.

'And what if you're vegetarian?' Francisca challenged him. Franklin jumped in, 'Then you have Google+! It's not Facebook, but the people who use it *think* it's just as good.'

With this colourful history, the three not only gave me a sense of how important different forms of internet-based communications had been over the last 15 years. They also revealed the ways in which new forms of communications media had been quickly taken up and normalised. Such technology is almost seamlessly integrated into daily lives, until the next big 'boom' comes along and something new is rapidly adopted. Overall their account demonstrates the ways in which new media do not significantly shift individuals' lives, but simply become new conduits for enduring practices. In particular social media constitute a new –and possibly the most important – public sphere in which notions of citizenship are performed and debated, all while reproducing the forms of normativity most prevalent in the city.

Modernity and mass communications in Chile

Andres, Francisca and Franklin's story of internet communications in Alto Hospicio was only the most recent chapter of a much longer history of mass communications in Chile. The country has always been in the vanguard of telecommunications in South America, coinciding with urban Chileans' propensity to represent their country as a forerunner of modernity on the continent. In 1852, just 15 years after the commercial electrical telegraph was invented, the first telegraph message was sent in Chile. The next year the telegraph service became public. Chileans began to use telephones in the 1880s and underwater cables were laid in the 1890s.[1]

Chile is currently one of the most engaged social media markets worldwide, averaging 9.5 hours per day per visitor to social media sites. In fact the country ranks as the third most highly penetrated market for Facebook in the world, behind the Philippines and Turkey. Florencio Utrera from the University of Chile was credited with introducing the internet to Chile in 1992. Its use spread quickly due to deregulated telecommunications, which encouraged private companies to compete over prices and services. Widespread usage began in urban areas in the north of the country by the end of the decade. Throughout the 1990s the Chilean government controlled prices, expanded internet usage in schools and offered internet training to NGOs, government officials and businesses. Today Chile has the highest rate of overall broadband

connection penetration in Latin America, and government projects continue to dedicate resources. On 28 June 2013 former President Sebastián Piñera announced he would focus on increasing the national number of users to bring the internet to 80 per cent of Chilean homes. He promised to lower connection costs and expand high speed broadband, providing free Wi-Fi in every community throughout the country.[2]

Logically this high penetration of internet access places Chileans quite centrally in global media participation, but Alto Hospicio and the entire Great North of Chile continue to lag behind. While many communities have free Wi-Fi access in their central plazas, for example, there are no free Wi-Fi points in Alto Hospicio. A few internet shops offer their connected desktop computers available for hire in ten-minute intervals, but there are no restaurants or cafes with Wi-Fi available to customers. Even the small, rarely used library lacks Wi-Fi access and provides no computer terminals for patrons. Many Hospiceños also complain that data service on mobile phones is less than adequate in the North. When my neighbour Alvaro returned from a trip to visit family in Santiago he told me: 'The networks are so much better there. I could even use the internet on my phone to make video calls. And the image was clear! If I try to do the same thing here [in Alto Hospicio], the call just drops.'

Often Hospiceños are left to work out their own ways of connecting to the internet. Many people place larger antennas on their roofs to capture a better signal when their internet is very slow. Others hire their neighbours or unlicensed 'companies' to make similar modifications. Self-engineered internet access has also been popular since the early 2000s, when home internet connections first became available in Alto Hospicio. Diego, an electrician in his late thirties, explained to me how he had personally wired his house for internet in 2001. Rather than pay a company to come to the house and connect the signal, he and some neighbours ran wires from the centre of the city to their houses themselves. He described the process of climbing up on roofs to reach the wires, then stringing them in zigzag fashion from street to street for about a kilometre until they reached his neighbourhood. 'It was pretty much an expedition just to get internet to the house,' he told me. Now most people have home internet installed by company technicians, but there are still some neighbourhoods in Alto Hospicio where wired internet service is not available. Families in these areas rely on their mobile phones for service. Yet even in neighbourhoods where internet is easily installed, a significant number of people admit that they clandestinely use other people's Wi-Fi networks.

In my survey of 100 internet users[3] 67 per cent of respondents reported that they had Broadband access in their homes. Another 10 per cent tethered their mobile phone to a computer for internet service and five per cent said that they used a neighbour's Wi-Fi signal. Eighteen per cent said they had no internet access on a computer in their homes. Unlike in many other Latin American contexts, internet shops are fairly rare. Most of them are located in the centre of the city rather than dispersed throughout the neighbourhoods – surprising given that

Fig. 2.1   A small internet access shop in Alto Hospicio

the neighbourhoods still without wired internet are those furthest from the centre. Those that still operate often have very limited hours and primarily cater to groups of secondary school students.

Smartphones are much more important to the ways in which residents of Alto Hospicio use social media and the internet in general. For most it is the only electronic device that is theirs alone. In my survey of social media users, only 14 per cent of people reported using a computer or tablet of their own. For all others, these internet access points are shared with parents, siblings, spouses or children. Mobile phones remain highly personal, however, with monthly data plans starting at around $10,000 CLP ($16 US). Most Hospiceños who have a plan pay around $25,000 CLP ($40 US), which allows them enough phone minutes and text messages for average use. However, some individuals such as Diego complain that the internet allotment of 1 GB is not enough for this price. He told me:

> The companies abuse the cost of the packages because they charge you for so many call minutes that nobody uses any more, or text messages, but they don't give you enough internet. Hardly anyone uses minutes any more, but they charge you, they charge you, they charge you.

However, others consider those with a plan lucky. In order to sign a contract, a customer must have a national credit card – itself restricted to those who can prove stable employment in a registered business and a particular level of income. Because of these constraints, a limited number of Hospiceños qualify for a monthly plan. Others opt for prepaid minutes, which can be purchased at any number of small shops in Alto Hospicio. For $10,000 CLP customers receive about 1 GB of data and a limited number of text messages and call time. Usually most of the minutes and messages go unused, and the phone owner buys a new allocation when their internet quota runs out.

As Diego's complaint reveals, the costs of internet access are no small matter to residents of Alto Hospicio. While many families can afford data plans and used smartphones, at times the monthly budget does not stretch. For other families, phone-based internet is simply out of the question. Most recent Bolivian immigrants in Alto Hospicio forego social media altogether, instead buying international phone credit for their simple mobiles to call the landlines of family and friends across the border. Not only is paying for internet service (either broadband or mobile phone data) a concern for many people: their points of access – the screens on which they connect – also create tension at times.

Such unequal access to internet-based applications, along with the shared nature of many screens, further normalises what appears on public social media. Eclipsing the most marginalised sectors of society, including immigrants and the severely impoverished, has an effect of further entrenching a sense of homogenous marginality rather than supporting identity politics online. Yet the great lengths to which most people go to access social media, whether sharing a computer with the family, saving up to buy a smartphone or finding an internet shop to connect, underlines both how important they are as well as how normative they have become. Their significance goes beyond merely staying in touch. Social media offers a space to express something deeper, about the self, about personal relationships and about how one sees one's position in the world.

Defining social media

Andres, Francisca and Franklin's descriptions make clear that Hospiceños use a variety of social media in various ways. Social media platforms are used for writing public announcements, sending personal messages, sharing photographs, alerting friends to news items, conveying one's mood via music, drawing attention to videos of interest or expressing a commonly held sentiment with a meme. Social media platforms are also important for communicating agreement or disagreement, or for developing relationships through phatic communication[4] such as 'liking', 'favouriting', sharing, commenting or even tagging and mentioning people in response to others' original posts.[5]

Many platforms allow for several of these different actions, and most actions can be performed using a number of different platforms. One platform may have multiple ways of interacting with friends – sharing posts, 'liking' a friend's status, chatting and tagging photographs. At the same time a single form of communication, such as writing messages, can be accomplished on various different sites and platforms. Even beyond online media, communication happens through a mixture of speaking in person, using more 'traditional' technology, such as the telephone or text messaging, and through internet-based social media. In Alto Hospicio, as across the world, social media is not opposed to, but is integrated with, communications in everyday life.

Early studies of the internet often conceptualised a 'virtual world' as separate from 'real life'. Yet Hospiceños understand that their online interactions are just as real and important as their offline lives. Just as

a telephone conversation or email does not constitute a separate realm, social media are simply part of a more expansive communication landscape. Because these categories merge into one another and daily life, it is useful to define exactly what we mean by social media.

As used in this book, social media refers to platforms such as Facebook, WhatsApp, Twitter, Instagram and interactive blogs. However, defining social media based only on platforms that presently exist is limiting. As Miller et al suggest, social media are those forms of communication that provide a middle ground between public broadcasting and private communication. Before this technology, each communication medium was often either unidirectional and aimed at a large audience, as in television, radio and newspapers, or was interactive but private in nature, such as telephone conversations or letters. With the development of social media, individuals can choose the size of their audience (ranging from one to billions) and level of interaction they wish. This 'scalable sociality'[6] gives individuals more control over their self-representations to different audiences.

For example, on Facebook an individual may choose to make a photograph visible only to their 'close friends', but to share a meme with an unlimited public. Twenty-two year old Lisette, for example, is somewhat private about her new romantic relationship with Isadora. When Lisette posts pictures of the two making funny faces together or sharing a meal, she allows them to be publicly visible. When she posts pictures of the two kissing or holding hands, however, she restricts their visibility to only her closest friends. She is fairly open about her sexuality with her family and close friends, but does not always trust a much wider social media audience with what she considers a sensitive subject.

Facebook, sometimes called just *Face*, is the most popular social media platform.[7] This is because, as many Hospiceños explain, it combines the ability to post visual materials with text status updates and interactive features such as 'liking' posts, commenting and private messaging. For many people in northern Chile, it is central to their daily communications. Because of its widespread use, Facebook is the sphere in which people maintain relationships, as well as express their individual personalities and participate as citizens of the community.[8]

Alvaro, who moved with his brother and mother to Alto Hospicio from Santiago in 2005, uses Facebook to keep in touch with family and particularly with his ten-year-old son Daniel, who remains in Santiago with Alvaro's ex-girlfriend. When Daniel turned eight Alvaro helped him set up his own Facebook account so they can share pictures and chat almost daily. This private communication is important, but Alvaro also

uses Facebook to express his interests, posting his own short reviews of the latest movies, as well as memes highlighting what he sees as unjustifiable policies that extend social services to new immigrants. He also takes advantage of his position as a manager of a small electronics store in the Zofri mall to publicly share pictures of sale prices on computers, speakers, televisions, video game systems and even alcohol that he sees around the mall. His friends often thank him in the comments for his 'public service' in advertising special deals to a broader public. Facebook thus allows Alvaro different levels of broadcasting, from privately conversing with Daniel to sharing pictures publicly. However, these levels only exist because Facebook provides the possibility of a seemingly unlimited public.

The public nature of Facebook provides a 'public sphere'[9] not only for individuals, but also for businesses, politicians and community groups. Official social groups and businesses take advantage of Facebook for various forms of publicity or to stay connected to the community. The volunteer leaders of 'La Escuelita' [The Little School] – an after-school programme operating in one of the poorest neighbourhoods of Alto Hospicio – began a Facebook page that they fill with announcements and pictures of special events they organise for the children, including breakdancing lessons, special crafts days and trips to the beach. They also use Facebook to promote their fundraising efforts such as selling home-made veggie burgers. The programme is run by several social work students from a university in Iquique, many of whom grew up or currently live in Alto Hospicio. They see Facebook as integral to the aims of La Escuelita, and make all posts on the page as public as possible. This is in part because their mission involves giving the neighbourhood's children a better chance at a positive future, but it also serves to promote a sense of community founded in collectively making the most of their marginalised conditions.

Raquel, a local social worker and community activist in her late twenties, ran for an office in the *Consejo Regional* [Regional Council] in the 2013 election cycle. In addition to the posters she and her friends hung up all over Alto Hospicio and Iquique, Raquel opened a separate Facebook account where she displayed her slogan and logo, explained her platform – which consisted mostly of improving community services – and linked to news articles relating to her campaign and the election in general. Even after losing the election, Raquel keeps this account open to share public, politically related news and maintains her personal Facebook account full of pictures with family and friends. Keeping the two accounts separate allows her to separate her personal

life from her political and professional life, and cater her posts to two different audiences.

Facebook is important for businesses based in Alto Hospicio as well. Gonz, who began a sushi[10] delivery business with his brother Victor, explained that Facebook allows them to publish menus, advertise on other pages and even take orders. They began the business after a major earthquake when the highway to Iquique was impassable, 'providing an opportunity' for Hospiceños to get sushi when their access to restaurants in Iquique was cut off. Gonz works all day preparing sushi at home. Then, from 7pm onwards, the two brothers are ready to take orders on their mobile phones and laptops. When someone sends a Facebook or WhatsApp message with an order, the brothers put sushi rolls into plastic boxes and send them with Gonz's son to be delivered. Facebook has proved especially useful for advertising specials or even giving special offers to regular customers. 'It only gets complicated when my friends write during the shift and I don't know if they want to order or just want to say hi!' Gonz told me. He now says he regrets combining his personal and business pages, but it certainly has not negatively affected the business. Over the course of my 15 months of field work the two brothers started in Gonz's kitchen, then moved to their parents' much larger kitchen. After recruiting several family members to help out, they were still overwhelmed with orders and had to hire two additional people, making the business an eight-person operation that continues to grow.

For individuals, politicians, businesses and community groups, Facebook is a way to express citizenship – by publicly voicing allegiance to certain local political issues and by helping the community, even if only alerting them to special deals in Zofri. Facebook, then, is a key public sphere in which Hospiceños perform a normative style of marginalised citizenship.

Individuals also use WhatsApp to parse out different sizes and levels of intimacy in their intended audience. WhatsApp is used much like 'traditional' text messaging, but has added benefits of sending photographs, video and voice messages, managing groups and using emojis, as well as using mobile data rather than a messaging bundle. When I began field work in 2013 WhatsApp was just taking hold; by the time I finished in 2015 Hospiceños considered it almost as important as Facebook.[11] When I met new people, including police officers, internet installation technicians and neighbours, they almost always asked if I had WhatsApp rather than wanting to connect through email, Facebook or telephone.

WhatsApp has become especially important for families in which at least one member works in the mining industry. The mining operations

are about 300 km (four hours by bus) away from Alto Hospicio, so the overwhelmingly male mining employees work one week at the mine with one week off. Vicky's husband Jorge, for instance, has worked in a copper mine doing maintenance on large machinery for over 20 years. Every other Monday night he takes a bus to the mine. Until the following Sunday he sleeps in a dormitory room that he shares with three other miners and eats his meals in the company cafeteria. He works from 8am to 8pm each day, then showers, eats dinner and usually watches videos on his computer before sleeping. His son Alex and son-in-law José both work in the same mine. Their schedules overlap, so Jorge is able to spend some evenings joking and playing cards with them. In order to stay in contact with his wife Vicky, daughter Gabriela and his grandson Samuel, however, WhatsApp is ideal. Jorge has a Facebook account, but rarely uses it. Instead he passes the night sending messages to his family in Alto Hospicio on WhatsApp, and receiving replies from his wife and daughter, often with pictures of Samuel.

Jorge's son Alex uses Facebook more than his father, but told me that WhatsApp is especially important for chatting with his girlfriend Carmela. He also uses WhatsApp to stay in contact with friends in Alto Hospicio, creating groups in order to stay a part of their daily, usually joking conversations. Alex appreciates this most on really boring days at work, because his friends send him funny videos or memes through WhatsApp to keep him entertained. He also uses WhatsApp to plan activities with Carmela, his friends and his family for his weeks off.

WhatsApp is also useful for actually doing work. Alex, who works in motor maintenance like his father, explained to me that living quarters and the offices at the mine are located far from the work sites; workers sometimes have to travel long distances between sites for specific projects. When he first started at the mine in the late 1990s, things were very inefficient because of the distances workers needed to travel. He explained:

> WhatsApp is perfect, because supervisors can just send you a message. Before you'd start out in the office and they'd tell you to go fix a motor that's a 10 or 20-minute drive. So you'd get there and discover that you're missing a part, or the motor is different than you thought so you need different tools. Well, there was no way to call, so you had to drive all the way back to get what you needed. And sometimes you had to do that two or three times. Now you just send a WhatsApp to your friend and they bring it out to you.

As noted above, businesses such as Gonz and Victor's sushi delivery company also use WhatsApp to take orders. Other business owners see an invaluable asset in the potential of privacy that WhatsApp offers. When I arrived in Alto Hospicio in 2013 there was only one bar in the city, open only on Thursday, Friday and Saturday nights. By the time I finished field work in 2015 Carlos had opened two bars near the centre of the city, both serving customers six nights a week. He often gives away specials in the bars, enticing customers to take selfies at the bar and post them on the business's Facebook page. 'But the most interesting things happen on WhatsApp,' he told me mysteriously.

In addition to the two bars Carlos also owns a strip club, which women are prohibited from entering. The club has a Facebook page, but many clients thought it was too public, so he now uses Facebook less and WhatsApp more, creating a private group where he advertises special events such as dancers from Arica or Antofagasta. The group has over 200 members who also use WhatsApp to post funny and sexually explicit memes and rowdy teasing conversations anonymously, turning the app into a virtual boys' club. 'It's just nice to have some privacy, and while Facebook is good for most things, WhatsApp lets the men be men without worrying,' he observed.

Though less public than Facebook, WhatsApp also provides a means through which individuals express certain ways of identifying, whether as a part of a family or work-related identification. Of course it also provides a more covert way of engaging with others, for matters that may be considered contrary to 'good' heteronormative citizenship.[12] Thus the ways in which Carlos uses social media for his businesses demonstrates how a combination of different media options further allows for maintaining an image of good citizenship in the public eye.

As Carlos's story reveals, group functions of WhatsApp are particularly useful to limiting the reach of certain kinds of communication. However, other platforms are well-suited for making broadcasts as public as possible. Though Instagram and Twitter are less popular in Alto Hospicio, individuals still take advantage of these platforms when hoping to gain a wide audience for their messages.

Twitter, the third most popular platform in Alto Hospicio,[13] is used to share links, photographs, text limited to 140 characters or simply to 're-tweet' another user's original post. Twitter also allows users to add hashtags to note the important topics of their post and make it searchable, but Hospiceños rarely use this feature. Hospiceños generally use Twitter as another way of writing status messages or perhaps linking to photographs, much as they use Facebook. Though the Iquique

newspaper (Alto Hospicio has no newspaper of its own), local radio stations, members of local government and a few individuals regularly post news items relevant to the region, not many Hospiceños follow these Twitter accounts, reflecting the fact that news is simply not an important use of social media in general. Rather people tend to get plenty of news from televisions and radios that seem to play constantly in almost every house, restaurant, public bus, collective and private taxi in the city.

Twitter use also seems to suffer from the fact that Hospiceños say the page view itself is boring. On Facebook and other visually centred platforms images such as personal photographs and memes are central to the application's appearance. On Twitter the page is dominated by text on a white background; many users say their eyes become fatigued quickly just looking at the page. Twitter does not offer the entertainment and distraction value equal to platforms with more image-centric layouts, thus earning it the title of the most *fome* [boring] social media option. So even those Hospiceños that use Twitter see it as secondary to other social networking sites where they concentrate more energy.

Yesenia, a mother of three who works for Alto Hospicio's municipal government, often uses Twitter as part of her job. Though she tweets only occasionally, she keeps the application on her phone and follows all the local news outlets, regional and national government and several businesses in Alto Hospicio. She is very involved with senior citizens in Alto Hospicio, and always tweets announcements about activities she organises for older members of the community. Yet pictures of the 'Advanced Adult Beauty Pageant', as well as celebrations for various holidays, are always reserved for Facebook. For Yesenia Twitter is a tool for organising, while Facebook is the space in which she reflects on the activities as part of enjoyment of life.

Yesenia's son Cristian also uses Twitter regularly, but in a very different way. He is among the teens who often replicate their Facebook status updates on Twitter. On Twitter he expresses feelings including happiness, excitement, disappointment or frustration with the normal events of life; he cheers on his favourite football team, Colo Colo, or just whiles away time to avoid boredom, as many young people do on social media. Cristian connects with friends by following them on Twitter and occasionally mentioning them in his tweets, but rarely uses hashtags. Instead of using Twitter to access wider networks, it is simply one more space much like Facebook where he can interact with his school friends online. For both Yesenia and Cristian, Twitter acts as a way to place themselves within the community – yet they also realise that Twitter is not a primary public sphere in which that community is present.

They thus give minimal emphasis to the application, leaving time and energy for those that are more central to the performance of citizenship in Alto Hospicio.

Instagram is also primarily used by younger people[14] and is exclusively image-focused. Users can post photographs that are modified through cropping and changing lighting and colour tones. Unlike Twitter, however, Hospiceños use hashtags (#) extensively on Instagram, often giving the location such as #InstaHospicio or #InstaChile, in addition to other photo descriptors such as #beach, #work, #school or #family. One popular use of Instagram is family photographs and specifically pictures of children. Tamara, originally from Southern Chile, is particularly fond of posting selfies with her four-year-old daughter Angela, and occasionally with her husband Luis. She also posts pictures of Iquique's main beach when she has the chance to go, but more often the pictures depict her daily life: grocery shopping, her job selling clothing in the large Agro-market of Alto Hospicio or relaxing at home watching television.

Other Instagram users focus their posts on particular themes. When Jhony, a member of the *Zorros Rojos* [Red Foxes] Motor Club, bought a large Samsung tablet phone, he took it to an *asado* barbeque with his fellow motor club members. Over Escudo beers and smoke from the grill, everyone gave Jhony suggestions for applications to download. After creating a WhatsApp group to organise events with the club, Miguel suggested he install Instagram. 'What's Instagram for?' asked Jhony. Miguel explained, 'You upload pictures and the whole world says "I like it!" It's good for self-esteem.' Paul, another member of the group added, 'You take pictures of ugly people like us and we come out looking good. It works like magic.' Jhony downloaded Instagram and took a few pictures at the *asado*. Later, however, he started exclusively to post pictures of his motorcycle and truck. While Facebook remains his main form of social media communication, where he posts funny memes, photos from parties and comments on friends' posts, Instagram is reserved for showing off his vehicles.

For Hospiceños, Instagram is less about interpersonal communication and more about expression and performance. It becomes a place to express normative aesthetics, lifestyles and hobbies – in many ways reflecting the normativity of Alto Hospicio, without opening up conversations about that normativity.

Because functions of different kinds of social media overlap, and many of the platforms offer more than one function, it is hard to conceive of one social media platform in isolation. Rather each is understood as part of the *colación* that Andres described. His description

acknowledges that with a variety of communication technologies at one's disposal, each media is defined and used in relation to other available media, a point encompassed in the term 'polymedia'.[15] Most people use a combination of several to achieve various communication aims. Some messages are aimed at a wide local audience (such as public Facebook posts) and others at anonymous, possibly international viewers (such as Instagram pictures and Twitter messages), while still others are intended for a very specific, small, known audience (Facebook messages only visible to certain friends, or WhatsApp messages to individuals or small groups). It is the ability to combine these different sizes of audience, along with different genres – such as photographs, videos, shared memes, original text and copied, shared text – that give social media its flexible qualities.[16]

Alejandra is a leader of a folkloric group, which performs a dance called Caporales. The dance itself has its origins in Bolivia, and there is even an official organisation which coordinates costumes and specific dance moves in the Bolivian capital of La Paz. Social networking sites in general become indispensable for Alejandra and her group – for communicating with the central organisation on Facebook, ordering costumes and planning trips to perform through WhatsApp and publicising their group by posting photographs on Instagram. YouTube is also important for groups outside of La Paz to learn the official dance steps that change slightly year to year. Alejandra explained that the central organisation makes a video of the group in La Paz teaching the step, and then uploads it as a private video to YouTube. They share the link through posts on their Facebook page only visible to affiliated groups in other cities, so that when those groups travel to other places any dancer affiliated to the central organisation will know the same steps and be able to dance together.

However, social media is important for other, more personal touches as well. One morning while getting ready for a performance, all the women in the group gathered at Cecelia's house to do their hair and makeup and to put on costumes. Cecelia connected her laptop to the flat screen television facing the large table in the main room of her house in order to show the crowd of 12 women a style of eyeshadow application she had found on Facebook, which had been republished from a make-up blog. At the same time Alejandra called her mother to ask a question about how to make a flourish in the traditional dancer's hairstyle of two long braids. Using the speakerphone, all the women heard her mother's garbled voice respond, 'I don't remember, just search for *trenzas* on YouTube!'

The Caporales dance group is only one instance of the ways that individuals bring different forms of social media together. Yet this example also illustrates the ways in which content from other online sources, such as blogs and YouTube, becomes reinscribed within other social media platforms.

YouTube, unlike many social media sites, does not require individuals to register in order to view videos on the site. Those who do register can post videos or comment on those posted by others, but most Hospiceños simply watch widely shared ones – usually instructional, funny web series episodes and music videos.[17] However, they do re-post these videos on social media such as Facebook, giving YouTube a 'social' aspect, though not within the website itself. The frequency with which they re-post YouTube-based content makes the site key to understanding the polymedia landscape in Alto Hospicio.

Nicole was one of the few YouTube users I met in Alto Hospicio who actually posts videos regularly. They are usually videos she records on her GoPro camera of weekend trips with her family or with her boyfriend Martin. The videos are usually edited with an added soundtrack and sometimes intercut with subtitle cards. In one video of a trip she took with friends to celebrate Carnaval in a small town in the interior of Chile, she begins by announcing to the camera 'We are starting our adventure!' Set to a club remix of a pop song, the five-minute video resembles a road trip montage sequence from a coming-of-age movie. Desert mountains cruise by as the camera faces out of the passenger window of Nicole's car. Images of the passengers getting out to stretch shows more of the landscape. The festival is similarly caught on video, particularly emphasising the crowd throwing coloured powder, confetti and water on each other – a practice common in Carnaval celebrations in the Andes. The video fades out as the song ends and the crowd continues to dance. This video sits on her YouTube page, along with silly videos she made during her university course in early childhood education and other trips she captured with her GoPro camera. Most importantly, however, she posted it on Facebook to share with those who had gone on the trip as well as her other friends.

Hospiceño musicians also use YouTube to distribute their latest songs across different social media. One local reggae group, headed by a husband and wife who go by their stage names Sista Ebony and Klandestino, spent a great deal of time and energy composing and working with a friend to make a video of their latest song. '*Miseria en la Periferia*' [Misery in the Periphery] describes life in Alto Hospicio, using the idea of the periphery as a tool for political mobilisation. Sista

Ebony and Klandestino celebrated completing the song by throwing an *asado* barbeque where they showed the video for the first time. The next day they shared it with all their friends on Facebook. As Klandestino explained, the group does not have the connections to get their videos played on television or their songs on national radio programmes. By using social media, however, they have been able both to find new fans and to spread their message of social justice.

Both Nicole and the reggae musicians use YouTube as more of a repository than a separate social media site. The videos that they post are very personal, but even when others post instructional, comedy or popular music videos to their Facebook pages, these forms of media become part of their own repertoires. Similarly a number of public Tumblr blog sites take on the same function, primarily used by younger Hospiceños to supplement their social media presence.[18] Tumblr allows users to write original text, but Hospiceños most often use it to curate collections of photographs, .gifs (Graphic Interchange Format, or animated image files), videos, links and audio. Though Tumblr offers the option to viewers to 'ask a question of the blogger', it seems that this mechanism is rarely used by Hospiceños because, unlike a Facebook message, Tumblr messages do not have the potential to develop into a chat. Many users choose to eliminate this option from their page so that interactions are limited to 'liking' and re-blogging.

Hospiceños creatively rework the functions of Tumblr in order to transform sites into collaborative repositories that take on an interactive aspect. This is particularly true with Tumblr accounts dedicated to humour. Miguel and Jhony, both in their early thirties and members of the Red Foxes Motor Club, often spend afternoons in Alto Hospicio sitting on Miguel's sofa. They laugh for hours at images and videos shared on one such site, Jaidefinichon (pronounced 'High Definition'). Here site administrators post pictures, videos and links that might be described as 'raunchy': related to drunkenness, sex, drugs and bodily humour. One morning, for example, the five most recent posts to Jaidefinichon were: a video of a bull ramming a person, a meme playing on similar syllables in 'Ebola' and 'Bolivia', a .gif of a woman shaking her behind unbelievably quickly, a video of a man falling of a skateboard and a meme about marijuana using stills from the television cartoon *The Simpsons*. Jhony and Miguel both started following Jaidefinichon around 2009. Miguel explained:

> At first it was like a virus. One person telling all their friends, and that's how everyone found out about it. A lot of people sent the

link on Facebook in 2009 or 2010. Others just mentioned it to their friends [in person].

Jhony chimed in:

> And the commentary is funny too. There are memes about the president, videos of dogs walking on two legs and images of weed. And it's a different conversation in the comments about each one. But all funny. Though sometimes I don't understand. Maybe I'm too old now.

As Jhony and Miguel explained, users can submit photos, videos or other sorts of media to the owners of the blog. Those who find the posts especially funny will click to a direct link to the picture or video, to share on their own Tumblr or Facebook. Occasionally such memes are also shared on Instagram as well, or sent via WhatsApp, as Jhony observed.

> People republish things because they want to make their friends laugh. They also try to write a funny caption for Facebook to show that they don't just share funny things; they're actually funny too. That's why funny comments are so important. You have to show your own creativity.

Miguel also noted:

> Everybody sees the same thing and everybody can talk about it when they get together for a party. It's not just about seeing it, or even writing comments online, but you can laugh about it with your friends when you see them too.

So, as in the case of Jaidefinichon, Tumblr may actually become a very social form of media in which expressions are shared, contributing to a sense of commonality and belonging. While these particular Tumblr pages are a bit raunchy and foster forms of citizenship based in cultural belonging rather than community engagement, they normativise through their shared nature. However, the true value of these Tumblr sites to social media, like YouTube videos, is the way in which the content becomes translated through its context on other social media sites such as Facebook.

Reworking self-expression on social media

Linguists use the term 'intertextuality' to refer to the way in which placing a piece of text in a new context changes its meaning.[19] In traditional literary terms intertextuality includes allusion, quotation, translation, pastische and parody, and many of these genres become apparent when social media users embed other forms of media within their own and others' Facebook walls. Creating an interrelationship between texts, social media users may transform the meaning of the original text to fit their own style in a creative re-working. In the process of 'entextualisation',[20] social media users create texts for circulation by extracting them from their original contexts, so that the content references the intentions of the sharer rather than the creator.

Even when social media users do not post original text or photographs, seeing their recycled posts as a form of entextualisation reveals the creativity associated with this type of social media use. By placing videos, photos, memes, text and sometimes audio into a common space, individuals actively curate the media that appears on their own and their friends' Facebook walls as if they were museum collections that act as a form of self-expression.

Mixing media components into a bricolage creates an active recirculation of materials that draw on multiple modes of communication (text, image, audio, video etc.), aimed at re-appropriating meanings.[21] In essence social media users take discourses already in circulation and make them part of their own new forms of discourse. When Instagram photographers use filters to stylise a photograph that they then upload as a new Facebook profile picture, they use Instagram as a means to an end, rather than as a primary form of social media in itself. In doing so such users demonstrate their creativity in assembling aspects of the various media available in order to make it individual. When that same user puts a YouTube clip of a funny moment from a television programme on a friend's wall, the meaning transforms from the original plot of the television episode to something far more personal shared between two friends.

Rather than seeing this type of sharing as derivative or unoriginal, Hospiceños understand it as a type of creative reworking of the content into a new style of discourse that displays the creativity and humour of the individual who shares the content. As the creativity displayed in these strategies makes clear, social media is not deterministic. Using existing media to make new discursive play allows users to retro-fit the media they wish to use into existing platforms.

During the time of my field work Instagram required all photographs to be square, but an Insta-photographer could use applications to create square pictures from landscape or portrait aspect ratios, without cropping anything out. Facebook has no application for adding sound bites to one's own Timeline, but, by posting the YouTube video of the song a person is currently listening to, he or she allows friends to share in the sonic experience as well. Unlike with older unidirectional media such as television, film and radio, Hospiceños actively rework social media in order to craft their own forms of curation, rather than passively consume them. So, even though YouTube may look like older media, and indeed often draws on radio, film and television for content, Hospiceños appropriate it in ways that are simply not possible with previous media. The ability to embed these clips in other social media allows people to exert more impact on media than previously, and the ability to remix media profoundly changes the context in which the content is newly embedded. When Instagram photos are shared through Twitter, or Facebook users tell their friends what songs they are listening to by posting a YouTube video of the tune, these individuals actively expand the possibilities of these media platforms.

'Meme' is now a household word in most of the world. It refers to a piece of meaningful communication that spreads, often using mimicry, from person to person on the internet, including images, hyperlinks, videos, pictures, websites or hashtags. In Alto Hospicio the most common form of meme, and that to which I use the word to refer, was of visual images overlaid with text (see Chapter 3 for examples). Yet these internet memes take their name from a term coined by Richard Dawkins in the 1970s, referring to 'an idea, behaviour or style that spreads from person to person within a culture'; these are cultural analogues to genes in that they self-replicate, mutate and respond to selective pressures.[22] Dawkins' concept of the meme has been criticised, however, as lacking room for agency, change and creativity. Instead understanding media that is re-shared as part of this intertextuality, curation and even a mode of performance allows us to understand creativity and change as essential to this form of reproduction.

From a wide variety of available material, social media users choose particular things in order to communicate something. They may share the most flattering images on Instagram or publish childhood photographs on Facebook. They may write accounts of the most interesting bits of their day or chronicle the things that annoy them most. They may search for the most heartfelt meme or the funniest videos to post on a friend's wall. And while individuals do not necessarily consciously

think of these acts as performance, they are always acts of choice – the public spaces of social media allow individuals to present themselves as they would like to be seen.

Understanding what people do on social media as performing does not necessarily mean that these are conscious acts, but they are nonetheless meaningful. And seeing them as performance draws attention to the fact that they are intended for an audience. The semi-public nature of social media creates a space in which information is expressed with a possibility, if not expectation, of interaction. Of course the user may never know if anyone has read it. An Instagram photograph, Tumblr blog post or Tweet may be sent out into the ether of the internet, and if no one 'likes' or comments upon it, the creator will never know if anyone saw it at all. Yet the *potential* for interaction makes social media social, because the person posting the photograph, text or video has created and shared the item with the intent that someone will see it, and hopefully respond to it.

One factor that underscores the importance of the audience on social media to Hospiceños is their desire for feedback. While few people explicitly mention that feedback is important, the extent to which they prefer media that involves extensive interaction, and concentrate on the visibility of those interactions, makes clear that Hospiceños, if only unconsciously, are drawn to social media in which they are aware of the audience and (at least some of) their responses. Though some scholarship suggests that the internet is a force that makes people more solitary,[23] this is not true for most users in Alto Hospicio. The social media sites they choose, and the ways in which they choose to use them, overwhelmingly focus on social interaction that is based in their local community and bleeds over into their face-to-face social life with friends, family and local organisations. The social media platforms that allow for the most feedback and conversation are popular because they are reliable for facilitating an audience.

There is nothing about platforms such as Twitter or Instagram that keeps people from engaging with others through comments and responses. However, people use Facebook most frequently because they are most likely to get a response on that platform. This forms a sort of feedback loop in which people perceive that others use Facebook more, so when they want feedback they use Facebook to express something, which in turn keeps others coming back as well. As this cycle continues, people know that if they want their friends, family, colleagues, acquaintances and even enemies to see something, Facebook is the place to express it. In essence Facebook is the most truly social of the social media for people living in Alto Hospicio.

Because social media provides a semi-public stage for these performances of the self, it also helps to establish and redefine what is normative, and what a 'good citizen' looks like. The photographs that people post give a sense of what one should aspire to in terms of one's own looks as well as that of their surroundings (see Chapter 3). The ways in which individuals identify themselves as part of familial relationships help to shape what people understand as a normative family (see Chapter 4), while the ways in which people express pride in certain activities as part of what it means to be a man or woman shape people's understanding and expectation of gender (see Chapter 5).[24] Even in discussing local or national politics, individuals demonstrate what sorts of belonging and solidarity are important in the community (see Chapter 6). Not only do users give their actions meaning through adhering to normative standards;[25] in their public performance on social media, these very actions help to shape what most Hospiceños consider normative.[26]

Of course not all Hospiceños would say that they hope to fit in to the normative standards of the city, either online or in daily life. Instead they follow the norms implicitly, producing 'conformity in the absence of the intention to conform'.[27] Their knowledge of local social norms is built up through experience, rather than explicitly taught. They act in accordance with normative behaviours, not through some means of rational calculation but simply because those behaviours seem natural. In fact for most Hospiceños the normative social expectations around them and in which they participate remain invisible.[28] Learned behaviours, naturalised through repetition,[29] become mental schemata of common sense.[30]

These unwritten but well known rules for social behaviour make up what might be considered 'social scripts'[31] that express what is taken for granted[32] or seems natural to individuals within the group. Most people, without even thinking about it, reproduce these social scripts in their mundane acts and the way they present themselves in everyday life.[33] From the way they dress to the food they prepare, from the way they greet neighbours to their topics of conversation – whether online or offline – people behave according to unwritten rules.

Even within these social scripts, however, Hospiceños often express individual preferences, styles and opinions. While some approach local politics with gravity, others complain about the national government with lighthearted humour. In their lives offline some prepare food using an old family recipe, while others simply mix ingredients according to their own taste. Social media provides a space for making these

expressions publicly visible. Posting pictures, memes, status messages and even private messages to friends is as much about self-expression as about personal communication. While individuals do not necessarily consciously think of these acts as presentations, they are actively making choices about how they want to present themselves. In essence social media provides a stage for performing the self.[34] Performing in this sense is not 'acting', but 'enacting'; not a false representation of a 'true self', but the production of oneself as a culturally recognisable subject.[35] These users characterise themselves, categorise themselves, locate themselves in relationships to others and situate themselves within the narrative that they want to tell of their life.[36]

Building a balanced social media diet

As Francisca, Franklin, Andres and I finished up our colación lunches, I looked down at my polystyrene container. 'OK, so if Facebook is the chicken, what is Instagram?' With the three interrupting each other, it was decided as follows: Instagram is the pesto pasta – totally unnecessary, but it has good flavour and it adds some colour to the plate. WhatsApp, on the other hand, is the salad – just as necessary as the chicken, but easy to forget – but when you do, you almost immediately notice its absence. 'Twitter is my rice,' Franklin said, 'really boring, but it's good for filling up. And YouTube is the *ají* [hot sauce]. I wouldn't eat it alone, but if you put it on top of the other stuff, it makes it even better.' 'And look,' said Andres, with a fork full of a bit of everything, 'This is how you make a Tumblr page', as the overflowing utensil disappeared into his mouth.

My lunch companions understand that, for social media to be enjoyable, a combination of different forms is ideal. It is in the creative use of multiple forms, not just in complimentary ways but in combination, that social media gains its popularity in Alto Hospicio. Most importantly of all, however, the meal must be shared. Whether with family, friends or acquaintances, social media is useful, enjoyable and even addictive because it allows people to share common experiences, often related to their marginalised subjectivity, and to construct a collective sense of belonging through normativity. Having access to multiple modes of media in order to do so allows for more possibilities and more resources in this creative work.

Hospiceños use social media to stay in contact with family, advocate for local reform, buy and sell items, build friendships, sort out work

logistics, express individual interests and almost always make people laugh. Yet all of this is done within the social scripts of normativity, performed for the audience of other Hospiceños looking on through their computer or smartphone screens. It is clear not only how social media is understood as a normative mode of communication, but also how it becomes a tool for social negotiation about what is normative and what exceeds the boundaries. Social media is at once a private communication medium, mode of mass broadcast and method of aligning oneself with various relationships, identities and ideologies, particularly for expressing identification as marginalised as well as performing as a 'good citizen'.

3
Visual posting: The aesthetics of Alto Hospicio

In Alto Hospicio there is a homogeneity that pervades the visual landscape. People, each with their individual differences, still fit neatly into the setting. Their T-shirts and jeans, often purchased used from the Agro market, are rarely meant to attract attention. There are few big buildings and very little advertising. Houses all seem to look the same, like giant Lego blocks stacked one or two high on each narrow street. One street looks just like the next, with a row of houses flanked by corner shops; the cars that pass by the main plaza seem to be all of the same few makes and models. Even looking at the Facebook pages and Instagram feeds of Hospiceños, it is hard to distinguish one from another.

The repetition of architecture, inconspicuous corner shops, run of the mill clothing styles and even stray dogs lounging in the plazas seems to reject the existence of anything out of the ordinary. Even on social media, normativity calls no attention to itself. There is something so normative about all of these aesthetic aspects in Alto Hospicio that they seem to reject difference passively. Indeed, normativity often seems to be the absence of doing anything different or special. Yet Alto Hospicio provides an example of the ways in which doing something ordinary is no less active than doing something extraordinary. It is a choice, though at times an unconscious one, that manifests in various ways, many of which are visual. Such normativity is closely connected to a sense of being a good local citizen, of fitting in and accepting marginality as part of belonging in the community.

Aesthetics may seem to be something wholly divorced from notions of citizenship. However, aesthetics are a key mode through which citizenship may be expressed or contested. Understanding this normative aesthetic as actively (though at times unconsciously) created

allows us to see the ways in which it also produces a certain form of citizenship. Aesthetics are grounds on which dominant (often capitalist) ideologies are reproduced[1] or contested.[2] In looking at visual elements of Hospiceños' social media, it becomes clear precisely how aesthetics becomes a key way in which individuals present themselves as 'good' marginalised citizens, reworking dominant ideals and promoting their own sense of collective normativity.

Instagramming the uninteresting

The aesthetic normativity of social media in Alto Hospicio is particularly apparent in visual representations of the self, often considered the sites at which performance and identification are most evident on social media. Typical selfies[3] in Alto Hospicio, even for young people, are usually taken at work, in their own home or that of a friend, or during a brief outing to the centre of Alto Hospicio or Iquique. These photographers rarely seem to aim at conveying a sense of glamour.

While both of the examples of selfies in Figs 3.1 and 3.2 are clearly posed, and we might assume the subjects hope to look their best, it is clear that the amount of effort and staging put into the photographs is minimal. The man in Fig. 3.1 is posed on a street corner on a typical neighbourhood street in Alto Hospicio. He turns to look at the camera and flashes a 'peace sign' – perhaps a now-universal worldwide casual pose for photos. The woman in the photograph in Fig. 3.2 has positioned her hair so that it appears in the frame of the photo, yet she chooses a background of a blank wall. Neither individual shows off particularly nice clothing in the photographs, nor does either choose an especially noteworthy background. Perhaps most revealing, however, is the fact that when these Hospiceños uploaded their selfies both photos received several 'likes' and comments focusing on the subject being good-looking, using the words 'guapo' [handsome], 'hermosa' [beautiful], 'te ves bien' [you look good] and 'preciosa' [pretty].

Pictures in which the subject intends to present a 'good-looking' pose, like those below, are one common form of selfies that Hospiceños upload to social media, but plenty of other pictures portray a more playful and casual look. These photographs tend to talk back humorously to the well-known stereotype of the selfie as narcissistic. In essence, when the subjects of the photos know that they might not pass as 'good-looking' because they are not well-dressed or posed, they reject this framing by 'pulling a face'. Such photos are popular among Hospiceños, both

Figs. 3.1 and 3.2 Two typical selfies of young Hospiceños

Fig. 3.3 Two young Hospiceños take a selfie with silly faces

young and old, perhaps precisely because expending energy (whether mental or physical) to compose a good-looking photo is simply not within the common repertoire. Yet such a manner of being informal and spontaneous is just as standardised as the formal poses with which they contrast.

The ways in which individuals talk back to the formality of the posed selfie are abundant. One inventive way popular among young Hospiceños is the foot photo, or 'footie'. These photographers are almost always in a lounging position while watching television or playing a video game, giving the viewer a sense of the mundane life that the photographer wishes to capture. The 'footie' is so casual that the photographer does not even have to move from a resting position to pose. The picture can be taken with minimal movement simply by angling the smartphone, already in hand, and snapping a photo without even pausing the television show or video game. It is the ultimate post portraying relaxation.
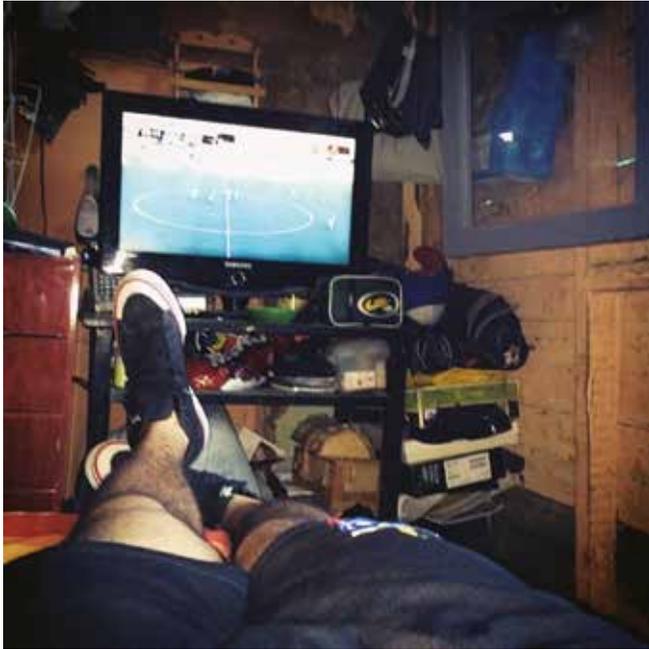
Figs. 3.4 and 3.5 'Footies'
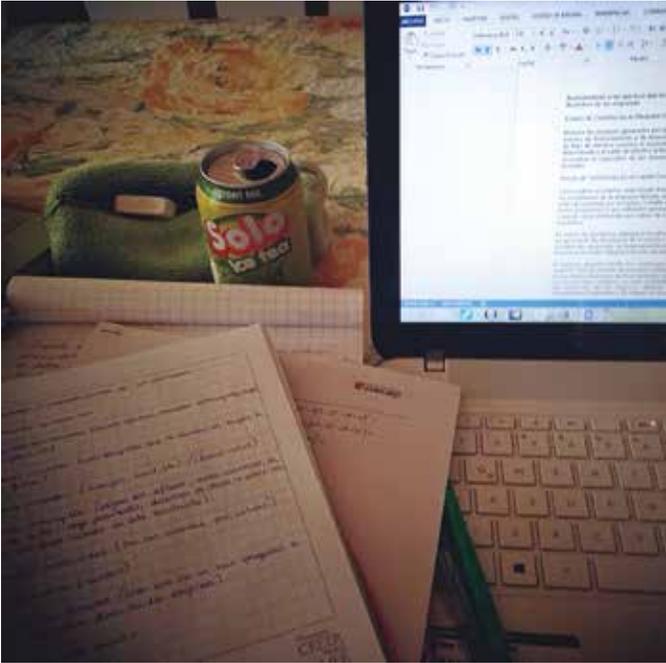
Figs. 3.6 and 3.7 Work photographs

Teens and young adults are those who most often post several pictures a day,[4] usually of mundane items such as new gym shoes, breakfast, their freshly washed car, 'selfies' taken at school or work and photo collages made with another app. These images give a sense of the monotony of everyday life. Taking and posting photographs often seem to be strategies for passing time while bored; indeed the photos themselves often include hashtags such as #bored, #aburrido or #fome. Young people pass time by photographing their workspaces (whether at their job or school), snapping pictures of their surroundings while relaxing at home (often watching television or listening to music) and taking selfies in sites around Alto Hospicio. Some photos even express the ultimate boredom: waiting in a queue while running errands. Figure 3.8 depicts the queue to pay bills at the Movistar mobile phone company.

These mundane photos suggest that the very purpose of photography for these young people in Alto Hospicio is not the same as for previous generations. There are few Hospiceños who do not possess a mobile phone with a camera or a separate digital camera. Cameras, film and the developing process were once relatively expensive, giving

Fig. 3.8   'Waiting in line to pay my bill #instabored #instafome'

photographs an aura of significance. But the ease with which Hospiceños now take endless digital photos evidences a changing relationship with the medium. The purpose of the photograph was previously to record the experience, whereas now, for many people, the photograph serves to enhance the experience.[5] Often young people snap photos with no intention of displaying them in their homes or on social media.[6] And, given the low quality of many that Hospiceños post, it seems that image quality, composition and subject are not so much the point of the exercise: rather the meaning is in the action. Photography is a way to pass the time, while posting the image on social media also opens up the possibility of discussion and praise from peers. Such discussions further help to ease periods of boredom. The photograph then works to pass time in a double sense – first in the instant of taking the picture and second in the time (hopefully) spent discussing the picture itself, along with whatever conversations might emerge on social media in the comments section or in private messages as a result of the photograph.

Of course Hospiceños also consider it important to capture entertaining moments with photography, and even use the act to frame an event as 'fun'. They commonly post photographs that feature the moments of life meant to be enjoyed, often consisting of food, drink and friends. These photographs work to frame moments – many of which are relatively mundane – as worthy of documentation and thus fun, special or noteworthy.

Again these pictures are taken with minimal effort and staging, suggesting that in Alto Hospicio the product of photography has become less consequential as the act becomes more important. People do not appear to pay much attention to their appearances, aside from the now almost universally understood symbolic modes of demonstrating 'a good time' – tongues out, burlesqued smiles and hand signs. They do not arrange their clothing or their bodies in particular ways, other than to make sure their faces are visible and fit within the frame. People often do not even appear in the photograph. Simply depicting the food or drink serves to symbolise a good time, allowing the human enjoyment to be implied through the material objects.

It is also worth noting that each of the pictures shown here were first posted to Instagram, associated in many places with overt curation of images. Curation here is used similarly to in an art museum, where different aesthetic objects are placed in relation to one another to create a narrative or simply an ambiance. Media coverage of Instagram usually focuses on the application's affordances for visually enhancing photos, allowing users to crop them into squares and choose 'filters'

Figs. 3.9 and 3.10 Photographs of food

Fig. 3.11 Photograph of friends

which change the contrast, colour tone, saturation and focus of the photos. What results is often something that looks like an over- or under-exposed Polaroid picture.

For many users worldwide, this is the appeal of Instagram – turning the ordinary into the nostalgically beautiful. It allows for the curation of a set of photographs that displays the artistic sensibilities of the user, the beautiful places they have visited, their stylised selfies and their clever eye for finding interesting compositions among the ordinary moments of life. For contrast I display here (Figs 3.13 and 3.14) two Instagram photos by users from Santiago. Both present subjects that are widely considered 'beautiful' for art[7] and use filters to enhance their appearance.

For these users Instagram reflects a more explicit concentration on the result of photography rather than the action of taking a picture. In many contexts the measure of a good Instagram photo is not simply its display of a moment in life, but its ability to combine a keen
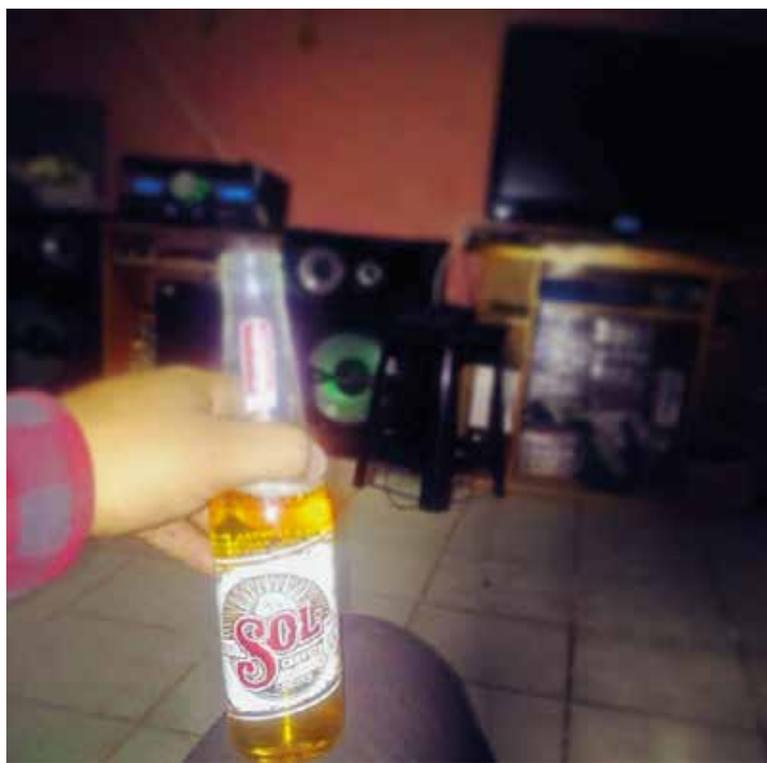
Fig. 3.12 Photograph of leisure

photographer's eye, interesting composition and skilful use of filters to create an aesthetically pleasing final product.[8]

The Instagram photos here from Alto Hospicio contrast with these ideals in almost every possible way. They do not feature subjects such as artistic works, well-presented restaurant food, beautifully decorated spaces or stylish fashion. Yet the contrasts are apparent even when Instagram users from Santiago portray the 'mundane' subjects of feet, work, their breakfast at home or the neighbourhood. Rather than the picture simply portraying the mundane subject, these users often compose the photographs and use filters to give them an artistic feel in an effort to elevate the mundane.

My point here is not that photographers in Santiago are qualitatively better than those in Alto Hospicio, but that their aims are different. For many Instagram users in Santiago, there is a sense that rather than capturing the mundane, Instagram and social media in general should be used to present the extraordinary moments of life: the

Figs. 3.13 and 3.14   Instagram photographs from users in Santiago

Figs. 3.15 and 3.16   'Mundane' items as subjects of Santiago users' Instagram photographs

beautiful vistas, delicious food and special moments with friends. These users in Santiago follow common ideals of curation more closely, while Instagram and Facebook users in Alto Hospicio present visual materials that corresponded more closely to an unedited view of daily life. In the context of other Hospiceño users doing the same, these pictures seem perfectly normal and 'natural' images to post on social media. These are pictures of 'normal' life.

It is clear that these photographs on social media are consistent with the way Hospiceños see offline life. In homes, clothing and these photographs, Hospiceños privilege an aesthetic that corresponds to the normativity of their everyday existence. Portraying this normativity constitutes its own form of aesthetics. These collections of photographs are not devoid of aesthetics. Rather, along with the spaces and material goods common in Alto Hospicio, they constitute a particular, unassuming aesthetic.[9]

Selfies, like most other forms of Hospiceños' social media photographs, simply provide a view into their daily lives. Yet to say that they are without aesthetics misinterprets the photographers' intentions. These photographs are precise examples of the aesthetic that corresponds to the particular form of normativity most prevalent in Alto Hospicio. As Hariman suggests, 'Because the camera records the décor of everyday life, the photographic image is capable of . . . aesthetic mediations of political identity.' These mundane selfies allow Hospiceños to perform their normativity and, along with other forms of social media postings, to place themselves squarely within the dominant conception of a 'good citizen' in the city'.

Daily life and social class on social media

The representation of daily life in social media photography works as a compliment to the social media presentation of social and economic class. Most Hospiceños present themselves as within the bounds of normative wealth and economic means of the city. And while most residents identify as marginalised, some families are of comfortable means – they have several wage earners to support the family and are able to afford such luxuries as the latest electronics, private vehicles, at least one mobile phone for each family member, and are able to spend extra earnings on entertainment activities. Yet they would consider it distasteful to present themselves as 'wealthy' (or what might appear middle class to those in Iquique). Instead, maintaining an appearance of conforming

to Alto Hospicio's marginalised position on social media allows for perpetuation of the social scripts of normativity.

While in many contexts people often use visual representation to make claims to higher status and wealth, Hospiceños actively choose to emphasise what they have in common with their neighbours and social media contacts. This is not to say that they are insincere about their wealth, but most people feel it is inappropriate to use social media to show off wealth and class position that departs from the norm. Instead, highlighting certain kinds of economic problems with a humorous twist allows them to contribute to collective discourses on the marginality of Alto Hospicio and its residents.

Hospiceños rarely perceive a stigma associated with lapses in their ability to afford certain luxuries – internet access among them. They quite readily admit to their material shortcomings, often approaching the subject in a joking manner. For example Eduardo, a 40-year-old man who had recently lost his job with a mining company, quipped one afternoon, 'People with money are always connected. Those with less money are only connected sometimes. And those with no money have to look for free Wi-Fi.' And because free Wi-Fi in Alto Hospicio is difficult to come by, those with 'no money' usually remain disconnected.

Because of these constraints, it is also not unusual to see public notices on Facebook that announce 'Friends, I will not have internet for the next two weeks. If you need me call my sister's mobile phone or come see me at work'. A smartphone plan or pre-paid credit is often the only internet access for many Hospiceños. Connections in Alto Hospicio in general are tenuous, depending on the strength of mobile signals (notoriously slow in Alto Hospicio), neighbours paying their own bills or friends' willingness to pass on credit.

Yet being without money has wider implications for social media. As Eduardo explained:

> Social media are very different if you have money. For instance, now when I'm poor I have two options. Before my internet is shut off [from my mobile phone] I can say to the world that I'm poor and hope that someone I have invited out before will invite me out and buy me a drink. If I'm poor without internet I'm just disconnected and have to find something else for entertainment. But when I have money I go out, I go to parties, I take pictures and put them online. I can be like Tony Stark [from the Iron Man movie franchise] – rich, eccentric and post pictures that prove it all on Facebook.

He then showed me the meme he had posted previously featuring Tony Stark; it represented the character's wealth and lifestyle, labelled 'payday', in contrast with a photograph of an impoverished-looking man crouching, labelled 'the rest of the month'. 'That just pretty much sums it up. Sometimes you have money, sometimes you don't,' Eduardo said with a sigh.

Rather than being stigmatised, these lapses in internet access fit seamlessly into other forms of expressing identification with a marginalised economic and social class. Poverty is even its own genre of humour on social media. When the iPhone 6 became available many Hospiceños circulated popular memes reflecting on its unobtainability. One joke lamented the feeling of the new iPhone bend while in the front

Fig. 3.17 Meme featuring Tony Stark, Iron Man character
Line 1: 'Payday' Line 2: 'The rest of the month'

pocket, only to remember that it is not an iPhone but a Pop Tart. Another expressed excitement: 'I am so happy the iPhone 6 has come out! Now I can afford to buy an iPhone 4 second-hand!'

iPhones, like Xboxes, are often used as symbols of luxury goods in a way that large-screen televisions, cars and cameras are not. This humour works because Hospiceños have a common understanding that iPhones are out of reach, as well as a shared experience of some form of feeling poor. Thus through this shared form of self-mockery, they build a sense of belonging in the community which takes as its base the normative experience of being marginalised.

Those who pushed the boundaries of class presentation on social media at times became a topic of gossip. Much as Vicky resented her ostentatious neighbours, other women complained about their acquaintances who showed off too much of their wealth on Facebook. Lilia, a mother of five in her fifties, told me:

> I have known plenty of people that are always talking about how poor they are. But then on Facebook I see they have a new car, they went on a trip, they buy accessories. Personally, these people bother me. Facebook tells the truth. They're stingy, they don't want to share.

For Lilia, social media works as a window that allows her to check up on neighbours and acquaintances in an effort to patrol the boundaries of normativity.

The joys of mediocrity

Hospiceños usually represent their wealth as normative on Facebook, but performing normativity extends beyond their current economic situation to the ways they present their aspirations (or lack thereof). A common genre of meme shared on Facebook represents success or a luxury lifestyle framed through humorous exaggeration. The meme picturing Tony Stark provides one example of this exaggeration, in which payday is presented as a moment of luxury in an otherwise meagre existence. Through this and other funny memes Hospiceños contrast themselves with representations of success, thereby actively aligning themselves with normativity.

One funny example of this style uses self-deprecation to position the individual as mediocre. The meme, which Jhony and Miguel originally found on Jaidefinichon, then shared on Facebook, features several sperm racing for an egg. The meme presents the self, even before
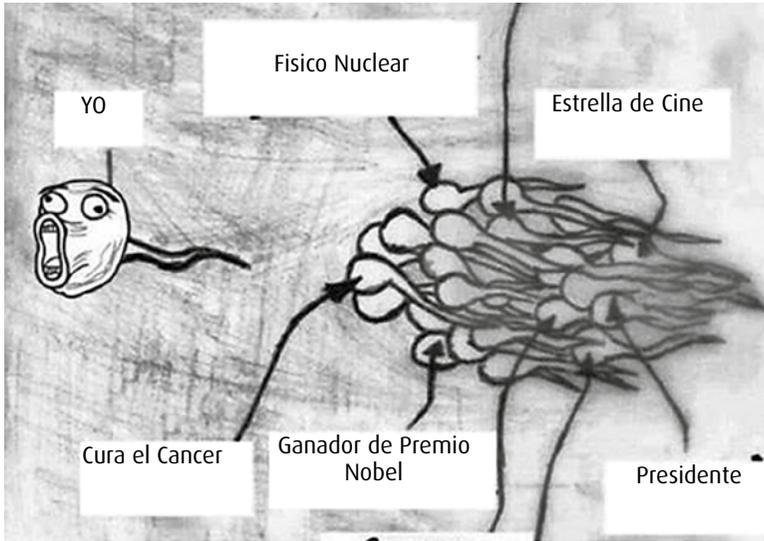
Fig. 3.18 Meme depicting sperm racing for an egg
Me   Nuclear Physicist   Movie Star
Cure for Cancer   Nobel Prize Winner   President

conception, as the disappointing result of almost random chance. Of all the possible sperm with extraordinary potential for brilliance, good looks and leadership qualities, the one that succeeds is mediocre. This form of humorous exaggeration places the self in contrast to greatness, claiming solidarity with the average individuals of Alto Hospicio. The frame of humour indicates a joking acceptance of such fate.

Another meme declares the advantages of physical mediocrity, claiming, 'Being ugly and poor has its advantages. When someone falls in love with you, they do it from the heart.' Again, individuals who post this meme portray themselves as mediocre or even below average in looks and wealth, but highlight the positive side of their situation – the knowledge that their relationships are sincere. At the same time they subtly suggest a correspondence between above average (good looking and rich) individuals and insincerity. They present normativity as a positive characteristic and devalue that which is usually idealised, reinforcing the sorts of social sanctioning created by women such as Vicky and Lilia in their gossip about neighbours and friends who show off too much.

Acceptance or even pride in a mundane life is especially apparent from a certain style of meme that overwhelmed Facebook toward the end of 2014. These *Rana René* (Kermit the Frog, in English) memes express a sense of abandoned aspirations. In these memes the frog expresses

Fig. 3.19   Rana René meme
Translation: 'Sometimes I want to quit working. Later I remember that I don't have anyone to support me and I get over it'

Fig. 3.20   Rana René meme
Translation: 'Sometimes I think about modifying my motor. Later I remember that I only have enough [money] for an oil change and I get over it'

Fig. 3.21 Rana René meme Translation: 'Sometimes I get the urge to break my diet. Later I remember that I never started and I get over it'

desire for something – a better physique, nicer material goods, a better family or love life—but concludes that it is unlikely to happen and that therefore '*se me pasa*' [I get over it].

Similarly, during June and July of 2013 a common form of meme served to contrast the expected or idealised with reality. The example in Fig. 3.22 demonstrates the 'expected' image of a man at the beach – one who looks like a model, with a fit body and tanned skin set against a picturesque background. The 'reality' shows a man who is out of shape, lighter skinned and on a busy urban beach populated by other people and structures. It does not portray the sort of serene, dreamlike setting of the 'expected'. In others, the 'expected' portrays equally 'ideal' settings, people, clothing, parties, architecture or romantic situations. The reality always humorously demonstrates something more mundane, or even disastrous. These memes became so ubiquitous that they were even used as inspiration for advertising Toddy cookies.

Health and body image are often commented upon in posts that demonstrate how normativity is more highly valued than excellence.

Fig. 3.22 'Expected vs. Reality' style meme

Unlike in many contexts where fit bodies are idealised, in Alto Hospicio it is precisely the imperfect body that is widely praised. One common meme suggested, 'A man without a belly is like a sky without stars'. Overall, discourses alluding to the acceptance of different body shapes manifest in the use of nicknames as well. Many parents or older relatives refer to their children (no matter their age) lovingly as 'mi gordo/a' [my little fatty]. Many people also called their siblings, cousins or friends Gorda or Gordo. In a sense, these are reactions to the more general idea promoted by mass media, including global television and movies, national or international magazines and even local celebrities that thin or fit is the most sexy and desirable body shape. Whether consciously or

Fig. 3.23 A Toddy advertisement modelled after the 'Expected vs. Reality'-style memes

Fig. 3.24 Meme depicting a tombstone inscribed with 'Here rests my desire to study'

unconsciously, Hospiceños communally valorise a positive body image that acknowledges the ways that most people look – something quite distinct from the forms that mass media implicitly suggests are the most desirable for both men and women.

Education is another theme that emerges in posts where Hospiceños identify with limited ambition. Most young people in Alto Hospicio finish high school (*segondaria*) and many begin studies at local universities, but only a few complete a university degree. When a young person (or an older adult) finishes university the whole family is very proud, but, given work options in the region, it is also understood as an achievement reserved for only the brightest and most dedicated students. More often people train for technical degrees in electrical, mechanic or other skilled trades related to mining or work at the Zofri dock. Others eschew advanced education and go directly into the workforce, so that they can begin contributing to the family income or support their own young families immediately. These local norms and expectations endow university education with a sense of distinction that many Hospiceños equally admire and see as superfluous. Because this treatment of education is almost universal within the community and reflects the limited ambitions of Hospiceño normativity, it becomes excellent fodder for humour on social media.

Humorous memes are important to Hospiceños because they allow for play. Yet the jokes are only comfortable for most audience members if they experience the humour as non-threatening to the core values at stake.[10] In the context of normativity in Alto Hospicio, joking is a safe and obviously popular way for people to express their comfort with the normative lives they have chosen. Rather than expressing disappointment or regret that they have not aspired to more, they reaffirm to themselves, and to those like them, that their decision to remain within the bounds of normativity is acceptable or valued within the community.

Humour often revolves around self-deprecation or forms of heightening emotion, only quickly to diffuse the situation.[11] The 'I get over it' memes featuring Kermit the Frog work in this way to excite the audience, but then quickly diffuse the expectations. This functions as a form of self-deprecation associated with low income and/or ambition. While the joke would work in any context, the Hospiceños who choose these memes as part of their social media performances communicate that they not only understand the joke, but also see a correspondence with their own feelings and ambitions. Within socially accepted ideals of normativity, joking becomes a perfect way of expressing normativity, even while articulating desires to go beyond the norm. Humour allows

individuals to express desires that are, under the circumstances, probably unobtainable, while simultaneously assuring others that they realise such ambition lies beyond the expected social scripts. This reinforces the sense of normativity, regardless of whether the individual feels constrained or comforted by it.

Furthermore, the visual elements of these types of humour reinforce normativity by relying on recirculated images that are almost by definition accessible to everyone. Memes do not express the originality of the individual who posts them. They are rather expressions of creativity, in that by aggregating various humorous memes on certain topics social media users actively curate funny Facebook walls, Instagram feeds, WhatsApp groups and Tumblr feeds. This means that even when memes express desires that seemingly go beyond the norm, they are still tied to some sort of collective desire, as the product of someone else's making. Images then both work as shorthand and as a further normalising aspect of social media usage.

Rethinking normative aesthetics

The unassuming form of normativity that Hospiceños present online seems at first glance to have little to do with curation. Material culture scholars suggest that individuals create social identities in part through material forms in their homes, workplaces, places of consumption, personal belongings and the styling of their bodies. Social media is just one more place where such self-styling may occur. This ability to display collections of aesthetic forms was never possible in such a public way for the grand majority of people before the internet became ubiquitous.[12] Yet it was often precisely the absence of particularly styled clothing, architecture and photography which characterised the normativity of Alto Hospicio. In expanding our ideas about what curation and aesthetics might entail, we see that the identities and lifestyles Hospiceños presented on Facebook and Instagram are both consciously constructed and corresponded to a certain, communally sanctioned social script. The aesthetic forms presented online bear a visual resemblance to the aesthetics of daily life in Alto Hospicio.

Of course, not everything an individual does – either online or offline – is an act of conscious curation. Yet when social scripts are deeply rooted, acts of curation that correspond to these forms of normativity do emerge unconsciously. Any time individuals represent themselves, they are constructing stories about themselves for others to interpret.

Again this happens both on the street and through social media, yet social media is particularly important because it provides wider access to resources. One does not need to be able to afford a Tommy Hilfiger wardrobe to represent the brand as part of their aesthetic online.

Social media also broadens the audiences for whom individuals can perform, with the possibility of a global public. Yet when Hospiceños do not take advantage of these broadened scopes, it becomes even clearer how deeply rooted the social script of local normativity is. To eschew aesthetics associated with 'good taste' because they are out of an individual's reach is one thing: to do so as a choice is another. Directing one's self-presentation to others in the same community, in a context where a global audience is possible, again reinforces the importance of local identifications and normativities, rather than positioning the self within a wider sphere. This exploration of Hospiceños and the visual materials that they post on social media then reinforces the notions of unassuming normativity that is visible simply on the streets of Alto Hospicio. In that sense social media is an extension of daily life, rather than a contrast. Hospiceños' ways of identifying represented therein further work to support community values of interconnection, social support, hard work and distinction from contexts understood as inherently different.

Hospiceños' conceptions of good citizenship become inscribed in their use of visuals in social media. The aesthetics produced in daily life are reproduced on social media, and there become a claim to authenticity as marginalised subjects. As Geertz notes, art and aesthetics may constitute elaborate mechanisms for 'defining social relationships, sustaining social rules, and strengthening social values'.[13] And when made public for a wide local audience through social media, aesthetics and visuality become central to their identifications, always intertwined with normativity and citizenship.

4
Relationships: Creating authenticity on social media

I am something of a suspicious character in Alto Hospicio. To begin with, I visibly stand out. As a very light-skinned person of Polish, German and English ancestry, I simply look very different from most of the residents of Alto Hospicio, whose ancestry is some combination of Spanish, Aymara, Quechua, Mapuche, Afro-Caribbean and Chinese. During my first week in Alto Hospicio a woman stopped me as we passed on the street near the commercial centre of the city. 'You look North American!' she stated matter-of-factly, then walked away without waiting for a response.

Beyond the simple surprise that my physical appearance evokes at times, I am untrustworthy as a single woman. As I began to develop relationships with people in Alto Hospicio they were often confounded that I had no male partner or children. Even though many people leave family behind in other countries or regions of Chile when migrating to the area, they usually move with a least one family member. The fact that I lived alone aroused suspicion. As my conversations with new acquaintances developed they would often quiz me on my social relations, as if searching for a relationship with someone in the community that might give me some legitimacy.

I of course found this frustrating – not only because as an anthropologist my job depends on developing relationships with people in the community, but also because I knew I would be living in Alto Hospicio for 15 months and I desperately hoped to make friends. Yet without some sort of evident social relationship, people were wary of befriending me.

After frustrating attempts to make friends in person, I joined a Facebook group called 'Everything Going On – Alto Hospicio'. I wrote a public message:

Hello, I'm an anthropologist studying social media in Alto Hospicio. If anyone would like to participate in my study, or even offer advice to a newcomer in Alto Hospicio, please write me a message or respond in the comments.

Miguel, the administrator for the group, quickly sent me a friend request and offered to help. He connected me to other Hospiceños on Facebook and regularly sent me announcements for events. After two months of online communication, he invited me to see a film with his group of friends. I happily accepted, eventually becoming a regular part of the group. Miguel later told me that when he first saw my post on the Facebook group site, he was suspicious of it. He clicked on my Facebook profile and thought, 'What is a gringa like this doing in Alto Hospicio?' His curiosity prevailed, however, and he engaged me in conversation.

I was nervous about meeting you [in person] the first time, because I didn't know what to expect. I was pretty sure you were a real person, but I was not sure. I thought maybe you weren't real. Maybe it was a fake profile. But then I saw you walking toward me and I just remember being really relieved.

Because I did not fit into the assumptions about who lives in Alto Hospicio, I experienced social barriers at first. While most other individuals there have extensive social networks, those outside of their social circles still often regard them as objects of suspicion. As in my case, social media at times provides ways to confirm a person's authenticity. For more recent migrants to Alto Hospicio, social media may be an important inroad to getting a foothold in the community. Similarly absence from social media, particularly among the most impoverished Hospiceños, acts as yet another barrier to their integration in social life. All of this is true because in Alto Hospicio, as in many other contexts,[1] the relationships that individuals maintain with other members of the community are precisely what make them part of that community. And the visibility of these relationships, whether in daily life or on social media, is essential. Without visible ties one remains an outsider.

The visibility of relationships on social media – primarily Facebook – functions as a mode of authentication in which community members recognise each other as similar to themselves, trustworthy and legitimately part of the community. In essence relationships are central to the notions of belonging that allow individuals to identify themselves

and others as good local citizens. In making visible different forms of relationships, Hospiceños highlight family and friendship, in effect solidifying and expanding these relationships. By performing these relationships visibly through social media, Hospiceños both claim belonging and publicly negotiate what it means to perform as 'good citizens' online.

Suspicion, authenticity and visibility

Suspicion was a common theme in Alto Hospicio. Padre Mateo, a local Catholic priest, explained his perspective to me. I had gone to meet him at his small home in *Autoconstrucción*, one of the poorer neighbourhoods. As he served me tea I explained my project about social media. He thought for a moment, then responded, 'Well, I suppose it's good people are being social, even if it is online anyway. People don't talk to their neighbours here. There's no trust.'

Most people use their smartphones while in the home or at work. It is rare to see someone using their phone while walking down the street or sitting in a plaza. Even in restaurants and in shops, people seldom look down at their phones. This is equally true when travelling on public transport. The bus ride from Alto Hospicio to central Iquique takes about 45 minutes, which always seems to me the perfect time to catch up on social media. However, most other passengers listen to music, fall asleep, eat snacks or talk to their companions rather than using their phones.

One day in the central market I talked with a group of vendors about smartphones. I asked specifically why so few people use them in public spaces, and they responded that people are always afraid someone will snatch their phone. 'Sometimes right out of your hands,' said a woman who sells jackets on her stall. 'Oh, the pickpockets are all around in Alto Hospicio,' added her friend, who sells children's school supplies. 'I think close to 75 per cent of people have something stolen from them every year.' This saleswoman's estimation is inaccurate according to official crime reports,[2] yet there is a widely held perception that one is never safe from pickpockets in Alto Hospicio. At least once a week I see a friend post on Facebook that they have been assaulted and had a mobile phone stolen. Even Padre Mateo mentioned this to me, lamenting how much more common petty theft is in Alto Hospicio than in other Chilean communities where he has worked. However true or untrue, this perception certainly has a profound effect on local discourses and behaviour.

Even when I first posted a message on the 'Everything Going On – Alto Hospicio' Facebook page, the responses revealed the ways in which

Fig. 4.1 Cartoon meme depicting the stereotype of *flaites* in Alto
Hospicio. Translation: 'How I am in reality/How people see me when
I say that I am from [Alto] Hospicio'

residents conceptualise danger in the city. Several people told me to
be careful, posting advice about which blocks were dangerous to walk
alone (even during the day) or which neighbourhoods were filled with
drug dealers and *flaites*. Others offered warnings such as 'never go into
anyone's house', 'don't eat or drink anything anyone gives you' or 'only
use regulated radio taxis. The ones you hail might rob you'.

Many people are constantly worried about having things stolen
from their cars – even such seemingly valueless items as half-full plas-
tic water bottles – as well as having the car itself stolen. Car security

systems are so ubiquitous in Alto Hospicio that one must learn quickly to sleep through the beeping and honking of car alarms. Jhony, a member of the Red Foxes Motor Club, was especially worried about having his Jeep stolen by Bolivians. 'It's 4-wheel drive, so if they steal it they can just drive it over the border, in the middle of the desert to avoid check points, and then it's gone,' he explained to me.

Local suspicion was also heavily influenced by the still recounted story of the 'Psychopath of Alto Hospicio', who kidnapped, raped and murdered 14 young women in 1999 and 2000, throwing their bodies into an abandoned well in the desert. When their parents reported the teenagers missing, the police force refused to investigate. Because the girls were from very poor families, the police believed they had more likely run away to become prostitutes or joined the narco-trafficking trade as 'mules' in Peru. Using the stigmas of illegal activity associated with poverty, the police shirked their responsibility to investigate and the disappearances continued. Even when families of the young women tried to involve investigators at the national level, the investigative police force ignored their requests. Only after the final potential victim escaped from her assailant did law enforcement officers begin to search for a suspect. When police eventually caught 'the Psychopath' they discovered that he was a relatively recent migrant from the central region of Chile: a newcomer who had few connections in the community.

What was especially significant about both stories was that the suspicious character was an outsider. These discourses relied on stereotypes of distrust. Bolivians are likely to steal cars; newcomers may potentially kidnap children. The residents of Alto Hospicio, still a place with a sizeable migrant population, are often suspicious of those they do not know. The suspicion that I aroused when I first arrived in Alto Hospicio was simply another example of how locals view unknown individuals as untrustworthy and possibly dangerous until they have a better sense of who they are, their motives and, most importantly, their connections in the community.

The ways in which individuals describe their social media use reflects this mentality. Strangers are not to be trusted. Yet mutual friends have the ability to transform someone from a stranger into a potential friend. When Miguel made 'friend suggestions' on Facebook so that I could add his friends to my account, few people declined my request. However, when I requested people without mutual friends I was almost always rejected.

Older Hospiceños in particular are quite suspicious of fake profiles and criminals searching for victims online. While many teen users

create fake profiles to play pranks on friends, older Hospiceños stigmatise these types of profiles. They are particularly suspicious of online relationships, often retelling stories they have heard about con-artists using fake profiles to lure unsuspecting individuals into relationships in order to scam them. Rodrigo and Gabriel, two middle-aged men who work at the port in Iquique, had a conversation about social media one afternoon as they paused to eat lunch in the company dining facility. 'There are lots of people, they speak beautifully, but when they are in person they change their way of being. There are criminals like that. Rapists and extortionists. They look for victims online. That's why this technology is no good,' Rodrigo warned.

The truth was that, in all of my interviews and surveys, I did not meet anyone who had been taken advantage of online. The only example of online dishonesty I encountered came from Jhony. He explained to me how he had once developed a romantic relationship online with a Brazilian woman whom he later discovered had lied to him; she had sent him pictures of another woman that she had taken from a website. However, even this level of subterfuge actually seems to be a rare experience among Hospiceños. Yet suspicion and discourses of danger online proliferate. This suspicion is one reason that the authenticity of others online becomes a primary concern for Hospiceños.

'Authenticity' is a term, much like normativity, that can be defined in various ways, depending on its context and the aims of the person using the word.[3] The concept of authenticity does not indicate an 'inherent essence', but is relational; it relies on contrast with what individuals in the context consider false or deceptive. Authenticity can be established by the ways in which people represent themselves through various communication methods,[4] including spoken and written language, self-styling and the visual modes of representation I discussed in Chapter 3.

For Hospiceños, social media is a space for representing themselves authentically – as they are in daily life. This does not necessarily mean that they divulge their deepest secrets in order to be genuinely themselves, but rather that they employ certain tactics to distinguish between realness and artifice. I am not suggesting that on social media all Hospiceños always tell the truth, nor that they never engage with notions of fantasy nor express themselves outside of the bounds of local normativity. Rather, performing a sense of authenticity as a Hospiceño is the mode of social media use that predominates. In visual terms this means curating profiles that corresponded to local expectations of visuality, for example photographs recognisably taken in Alto Hospicio and Iquique, sharing memes and almost always commenting with humour.

Following such norms serves to mark an individual as belonging, but for Hospiceños demonstrating relationships is an even more direct way to present themselves as familiar rather than strange. In many contexts friending strangers may lead to increased status, and is at times central to the reasons why people use social media.[5] In Alto Hospicio, however, evaluating someone as a stranger is likely to result in social exclusion – refusal of friending, deletion or at least ignoring the 'non-authentic' user. Strangers are objects of suspicion: only those who may be authenticated through some aspect of their online profiles are to be trusted enough to accept friendship or interact.

Authenticity relies heavily on the visibility of relationships with others in the community, and social media is central to the ways that Hospiceños make these relationships visible. As Pappacharissi suggests, Facebook is 'the architectural equivalent of a glass house'.[6] Knowing that social media postings can be seen by members of the community, users perform their social ties to and for others.[7] However, these performances of authenticity are not simply a product of social media; anthropologists have documented the importance of visibility in relationships long before the internet, or even computers, were invented.[8] Social media does not revolutionise these relationships; its importance lies in providing a new medium in which labelling and visibility can occur. Particularly in the context of suspicion related to the community's marginalised position, social media is key to the ways in which authenticity is produced, as part of creating a sense of belonging and broader concepts of citizenship.

Family relationships on social media

In Alto Hospicio social life is centred on private spaces such as the home. Rather than meeting friends at the local bar on a Friday night, Hospiceños invite a few people over to their houses. They celebrate important events with an *asado* barbeque with the extended family at home rather than an elaborate meal in a restaurant. Hospiceños watch important football matches in the kitchen, drinking cans of Escudo beer with family and friends. Even marriages are often quiet family affairs rather than large community celebrations.

This intimacy of events means that often Facebook is one of the most publicly visible ways in which people interact, particularly for non-school age children. Relationships, whether between family members, romantic partners or friends, remain out of the public eye. For this

reason it is often important to demonstrate these relationships actively on social media.

The family is usually the most important institution in Hospiceños' lives. A majority of families have three or four generations living together, often encompassing one or both parents, their adult children, their significant others and young grandchildren all in the same modest house. Families eat meals together and combine financial resources. They are generally all expected to help with the physical and emotional labour of the group, whether that involves caring for children or helping out with home construction projects. Families watch films together, go on outings to the beach or events in Iquique and simply pass time chatting after meals. Parents and children are usually emotionally close, and there seems to be little resentment towards parents other than the usual teen complaints of not being allowed to stay out late or do recreational activities before finishing schoolwork. While some parents and grandparents feel that social media has become a barrier to the types of intimacy that families once shared, most proudly embrace social media as a way to connect further with their families and to express familial love.

On average, survey respondents said that about 30 per cent of their Facebook friends were family members.[9] Almost everyone under the age of 50 had at least one parent as a friend on Facebook, and 80 per cent of respondents were friends with their brothers and sisters. Of course, being Facebook friends does not necessarily constitute meaningful interaction. Yet by looking at the actual Facebook timelines of family members, it is clear that most do interact frequently. Mothers and fathers both post copious amounts of pictures of their children (and grandparents of their grandchildren), often using these images as their profile and cover photos on Facebook. Children in their twenties and thirties post photographs and messages on their mothers' timelines, and tag their parents in photos, memes and shared bits of text.

Facebook allows users to elect 'family members' among their friends, and for Hospiceños this often was a way of demonstrating not only familial ties, but close friendships as well. In general the line between close friendship and familial relation is often blurred, a situation reflected on social media. The category of 'family', both on social media and in daily life, includes not only several generations of sanguine relatives (those related through blood),[10] but also individuals or other families of 'fictive kin' who have been close for a long time.[11] Most people choose to list their parents, siblings and children as family members on the information page of their Facebook account, but it is clear that these lists also include brothers, sisters, cousins, aunts and uncles

who do not share any formal kinship ties. A young man's best friends will often be listed as brothers. The younger sister of a good friend could be listed as a cousin. And god-parents or other family friends of older generations are listed as aunts and uncles. These lists, of course, reflect the titles that Hospiceños use face to face, particularly for *tias* and *tios* [aunts and uncles], showing the importance of the family as the primary organising unit of social life. Extending these fictive kin designations to social media, however, also serves to make these relationships more visible. Listing someone as a family member, as well as visible interactions such as posting on their timeline, signal the strength of the relationship to a wider audience.

In Alto Hospicio many children (of all ages) feel that it is important to show affection by explicitly thanking their mothers on Facebook. In doing so, they not only engage with their mother, but also perform for a wider audience the role of being a good child. They post photographs of the family doing activities together, such as celebrating a birthday, cooking meals together or simply spending time at home. The reverence a mother receives from her child serves as a form of authenticating the child as a respectful and respectable person.

Like the posts discussed in the previous chapter, memes are an easy way in which children can connect with their mothers. Many acknowledge the sacrifices mothers made for their children. One meme of simple pink and black text on a white background declares: 'My mother . . . traded her beautiful figure for a huge belly; traded her purse for a diaper bag; traded her calm nights for long sleeplessness; traded her makeup for big circles under her eyes. I believe that the perfect woman exists and she's called Mom.' Sometimes mothers respond with a similar meme almost word for word (See Fig. 4.2).

While mothers and their adult children share these kinds of memes, parents of younger children perform parental satisfaction on social media by documenting their children's growth in photographs and status updates. And while clearly these posts express sincere affection, they serve a dual purpose of marking life stages related to normativity and senses of good citizenship in Alto Hospicio. Young people here often become parents in their late teens or early twenties, and social media use reflects this timing of life stages. Hospiceños comment that it is very unusual for young people to reach 25 without having had a child. Twenty-four-year-old Nicole often complained that her own parents and her boyfriend Martin's parents pressured them to get married and have children quickly. When I asked Martin about this he told me, 'Well, people usually have children when they're

Fig. 4.2

Motherly love meme. Translation: Sometimes I have changed an eye-liner for dark circles . . .

Straightened hair for a ponytail

Crazy nights of parties for staying up all night taking care of my sick child

Stylish purses for a diaper bag

I'm mom . . . and it doesn't matter at all to me what I've left behind for the LOVE AND SATISFACTION of a 'MOM, I LOVE YOU SO MUCH'

13 here! No, the usual age is 20. By 25 the train has left the station, at 30 it must be that you're really professional. By 35 you're getting really worried. Well, at least that's what people say!' My survey results seemed to confirm these expectations. Of people between the ages of 30 and 39, 100 per cent of men and 86 per cent of women had at least one child.

Expecting a baby is an important life stage in Alto Hospicio – but also serves to perform to Facebook and other social media audiences the act of entering into adult life, settling down and accepting responsibilities. Even when people speak about stereotypical *flaites*, they note that often after having children they settle down to become a 'family man'.[12] Performing the role of parent on Facebook communicates a certain level of maturity. Both expectant fathers and mothers anticipate their baby's birth by posting pictures of material goods associated with a baby,

sonograms, monthly updates of the size of the future mother's belly and even humorous memes and cartoons relating to children.

In many countries pictures of expecting parents on social media anticipate the arrival of a new member of the family with much love and excitement. They express a period of time that carries with it a social significance. The pictures are not so much about the precise subject of the photograph – just how big the belly may be or the exact shape of the foetus in the sonogram – but what they represent: less the enjoyment of pregnancy than the excitement of preparing for a future child. In Alto Hospicio these photographs also communicate to the public their social positioning as parents (or soon-to-be parents), again with the aim of legitimating their status as trustworthy or not subject to suspicion.

As children are born and grow up, both mothers and fathers continue to post photographs of them. Often, as noted above, they include their children in their own profile pictures or cover images on Facebook. Young girls are often referred to as 'mis princesas' [my princesses] and young boys as 'mis gordos' [my fatties], always with a sense of pride. Indeed, in many families in Alto Hospicio a sense that young children can do no wrong exists in tension with the value placed on being 'bien educado' [well educated]. Rather than applying specifically to formal education, being 'well educated' is better demonstrated through good manners, using the formal 'usted' [you] instead of informal 'tú' when speaking with adults and in general using good grammar. While minor threats are often given, such as 'no television while eating the meal if you won't finish your dish', these are usually empty, and children who come to appreciate this often ignore them. Yet young children are without a doubt expected to behave well outside of the home: They are expected to thank adults for meals or gifts and to play quietly in public. Children are valued as gifts,[13] but their conduct, even when they have become adults, reflects on their parents. On social media mothers create posts expressing pride that their children are 'good kids' who respect and love their parents, while children express pride that their parents are a part of their lives.[14] Such representations reflect positively on parents as capable of raising good children and thus portray them as good citizens themselves.

Portraying oneself in a positive light on social media is especially important in Alto Hospicio because the small number of public spaces limits the visibility of relationships. Both parents and adult children are able to represent their identification with a family-based lifestyle, and thus further authenticate themselves in the valued social scripts common in

Figs. 4.3 and 4.4 Photographs of pregnancy

Fig. 4.5 New baby meme. Translation: Why hire a professional photographer if we can take [photos] ourselves. . .

Alto Hospicio, through social media posts that demonstrate their familial connections clearly. Visible family connections work to strip away suspicion, as there is an underlying assumption that parents are more trustworthy than individuals without children. Similarly, portraying oneself as a devoted child, a devoted parent or a parent who has raised well-educated and respectful children reinforces perceptions of individuals as valued community members and 'good citizens'. And while all families have their own quarrels and internal family secrets, in Alto Hospicio the

emphasis on family online truly seems to reflect the closeness and importance of family in daily life and behind closed doors.[15]

Social media sites of visibility

The centrality of private spaces to social life in Alto Hospicio means that in addition to familial relationships, romantic relationships and friendships also gain visibility most prominently on social media. Padre Mateo explained to me that formal marriage is somewhat uncommon. Young people often remain unmarried because they perceive that tax benefits and government assistance to buy a home are actually accessed more easily when single. However, it is common for couples to cohabitate, even if in the home of one of their parents, and to have children together. While these arrangements are certainly public, at times changing their Facebook status from 'pololo/a'[boyfriend/girlfriend] to 'novio/a' [fiancé(e)] or 'esposo/a' [husband/wife] may be the most public expression of commitment.[16] For example, when 22-year-old Giovanna became hospitalised a week before her planned marriage to Cristobal, they cancelled the wedding ceremony. More than two years later they still have not rescheduled, and their Facebook relationship statuses remain 'engaged'. For Giovanna and Cristobal, formal marriage is not as important as community recognition of their relationship. After having a child together and both moving in with Cristobal's parents, there is little question about the seriousness of the relationship. With the visibility of other aspects of their relationship, formal marriage is simply unnecessary.

Nicole and Martin have been a couple since high school; when I met them the relationship had lasted about six years. In 2013 both still lived with their respective parents and siblings, though they spent most nights together. Martin's mother was quite critical of this arrangement and often chastised them, saying that they should not be spending the night before making a decision to get married. 'That's why we always stay at my house,' Nicole told me. Eventually Martin's mother began to wear them down; one evening in August, when they invited me for a dinner of home-made pizza, they told me they had started discussing marriage. Just a week later I saw Nicole's post on Facebook: 'Without signing a document, without giving a previous announcement and without vows, we have made a promise.' She uploaded a picture of the two wedding bands the couple had bought.

The two then began looking for an apartment, eventually finding one in the same complex as Nicole's family. They adopted a dog together

Fig. 4.6   The picture of rings that Nicole and Martin posted on their Facebook pages

and bought a car within the next year. They had a small 'housewarming party' in their apartment, with plenty of snacks and mixed rum and coke drinks, but that was the only official celebration of their new life together. Facebook was the most public announcement of their new commitment.

The importance of visibility is perhaps best illustrated by the moments in which its absence creates a rift. Iliana and Guillermo, both in their thirties, had been dating for a year and had become quite serious, moving in together in their own apartment only a few months after

they began the relationship. However, for their one-year anniversary Guillermo was working at the mine, so they celebrated with a long video conversation using Skype. Around 11pm Guillermo told Iliana that he loved her and hung up in order to shower before his early bedtime. Iliana then decided to write a special message about him on her Facebook wall. 'One year ago my life changed. I have smiled, laughed, and spent so many wonderful days hand in hand with the person I love. Thank you for changing everything, honey.' Still early in the evening, she hoped Guillermo would see it and write a comment with a sweet message for her before going to sleep. Hours later, however, he had not even 'liked' the message.

> I kept seeing our mutual friends like it and comment on it, and I kept thinking, why hasn't he? Did he fall asleep so early? So I waited until the next day and he still hadn't even liked my message! I had to wait until he got off work at 8:00 at night to talk to him again, and I felt a little silly but I asked him about it. He told me 'Oh, I didn't know it was about me.' I thought – how could it not be about you? Who else am I holding hands with? Who else do I call 'honey'? So maybe it was silly, but I erased it and wrote a new message that said 'It's so sad when you write something from the heart and the person it is meant for doesn't understand.' Within two minutes he commented 'If you tag the person they will know.' I thought that was so stupid! Obviously, it's about you, but you want me to tag you anyway. Fine.

Iliana went on to tell me that since this incident she has tried to tag him in more posts, but it does not always occur to her naturally. She recounted another incident that occurred a few weeks after their anniversary.

> I told him I was going to a party with some friends, and he asked if my ex would be there. I said yes, but that he has a new girlfriend too. I asked if he would feel more comfortable if I told my ex explicitly that I was in love with my new boyfriend, and he said, 'Well, maybe if you put it on Facebook. And tag me.'

Clearly Guillermo abides by the 'Facebook official' rule, often espoused by friends of new couples, those who get engaged or even those announcing a pregnancy. Nothing counts as 'official' until it is entered into the public record, as evidenced by its announcement on Facebook.

Fig. 4.7 This cartoon, shared by Giovanna while planning her wedding, illustrates the 'Facebook official' mentality: 'I now declare you husband and wife. You may now update your Facebook statuses.'

Other couples seem to express their relationship more naturally on Facebook. Nicole and Martin, for example, regularly post pictures of themselves together, sometimes in matching clothing, other times kissing for the camera. Almost daily they post messages on each other's walls expressing something along the lines of 'I love you, my little piggy'

Fig. 4.8   A photo collage that Nicole shared featuring herself and Martin

or 'Just a few hours without the love of my life and I miss you'. Not only does using common nicknames such as '*chanchi*' [little piggy] communicate a sense of intimacy directly to the other person, but the use of these terms of endearment also performs the intimacy of the relationship for a broader audience of social media users, serving to authenticate the relationship further in a public fashion.[17]

The story of Carlita and Alex (and his ex) demonstrates the other side of public visibility – a case in which unwanted visibility caused tension and jealousy. Alex and Carlita had been dating for several months when Carlita told me she was upset that Alex still kept in close contact with his ex-partner. She told me she trusted Alex, but was suspicious of his ex because she wrote to him 'too much' on social media.

> A few times she would call, and I could tell he felt like he had to keep the conversation short, because he knew I was watching and listening. But she would also click 'like' for every picture he put on

Facebook. She would comment and call him 'sweetie'. And I could see she was sending him voice messages on WhatsApp all the time. I mean, I couldn't say anything really, but it annoyed me. I just thought, this woman that I don't even know, she's disrespecting me, right in front of me. But if I say anything I'm the crazy jealous girlfriend. But lately she hasn't written anything, so it's getting better.

For Carlita, part of the insult was that some of these messages were public. While phone calls and WhatsApp messages were private, she would also comment in affectionate ways on Facebook. It was this other woman's presumption that it was acceptable to acknowledge publicly lingering affection that was the most offensive to Carlita.

For Carlita, like most Hospiceños, the visibility of relationships is what legitimises them within the community. In fact, making relationships visible on social media not only communicates something to the public of social media, it sometimes also has the ability to transform a more insecure type of relationship into an enduring one. In Carlita's case, the visibility of Alex's ex posting publicly gave an apparent precariousness to her relationship. Guillermo, on the other hand, hoped to solidify his relationship with Iliana through public posting, leaving no doubt in anyone's mind (particularly her ex-boyfriend's) that they were together. For Nicole and Martin, meanwhile, announcing their commitment on Facebook served the role of a public wedding. In each of these cases visibility served not only to authenticate the relationship, but also to confirm that these relationships fit into the kinds of social scripts that seem natural within the community.

Performing relationships in absence

While performing relationships online is important for almost all families and couples, social media becomes even more important in relationships that must endure physical distance. Given the importance of mining in the area, and the shifts, often a week in length, that mining employees work, there are many people (mostly men) who spend extended periods away from home. In these situations it is particularly important for people to maintain romantic or family relationships through social media. Direct communication, through Facebook messenger, WhatsApp and even Skype, are important for maintaining a personal level of connection during times of absence. Yet beyond personal communication of

updates on family life and daily expressions of love, the act of missing a person is important to perform publicly on Facebook as well.

This often manifests in a genre of posts that publicly state that one person is missing another. Many miners post a daily tally of number of days on their shift and days remaining, together with a mention of what they miss, such as 'Today 5/7 – two more days until I see my honey and little munchkins'. Equally their partners, and at times their friends, siblings or parents, post their desire to see the absent family member again. Many memes express this as well, being shared among miners and their families. One week when Guillermo left for the mine Iliana tagged him in a meme expressing her feelings about the upcoming week. 'How I'm going to miss you my fatty . . . I hope the days pass quickly to be close to you. Have a great shift my love #ILoveYouToInfinity.'

Similarly when friendships become harder to maintain in person, they often shift to social media. When women in Alto Hospicio enter their twenties and thirties they often have young children, which means they are relatively house-bound, at least to an extent that many complain about their inability to get out more often. Yet at this age they are
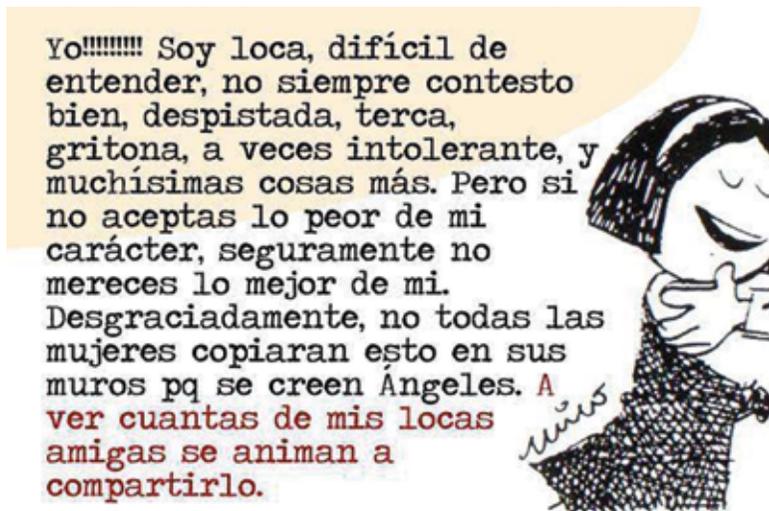
Fig. 4.9 Meme shared among female friends. Translation: 'Me!!! I'm crazy, difficult to understand, cold, loud and sometimes intolerant, and much more. But if you don't accept the worst of my character, surely you don't deserve the best of me. Unfortunately, not all women will copy this on their walls because they think they're angels. Let's see how many of my crazy friends will share it.'

still more socially aligned with female friends. These younger women often post photo montages from months or even years past, depicting activities with friends, for instance a night out, cooking dinner together or going to the cinema. They tag their friends and write messages such as 'I have known my best friends for so long. They are always there for me, and they know I always have their backs. Thanks ladies!' Others share memes expressing similar sentiment such as the one above (Fig. 4.9).

When 32-year-old Nina shared this particular meme, she accompanied it with the comment 'That's how we are!' and tagged seven of her female friends. Each of the tagged friends, as well as a few other women who knew the group, commented on the status with lighthearted agreement. This visibility among friends served to cement the group, and to express pride in the similarities of each other's personalities.

In many ways the visibility of friendship and even romantic relationships online creates some obligations based on assumptions of reciprocity. Hospiceños feel that it is important to reciprocate visibility in a relationship, whether a friendship or a romantic association, in order to maintain good relations. If a friend takes the initiative publicly to acknowledge the friendship online by posting a meme or photograph, writing on a friend's wall or tagging friends in a post, they usually expect that those with whom they engage will equally acknowledge the relationship publicly. Different levels of obligation and visibility exist. In casual friendships, for instance, a mere 'like' of a status is sufficient, whereas for closer friends tagging, posting further memes or engaging in conversation in comments is expected.

Friendships between male peers involve their own types of reciprocal obligations, usually based around mocking humour rather than more frank expressions of solidarity. While it is rare for men to tag groups of friends in a single post that explicitly highlights their friendship, men do tag their friends or share links on their Facebook walls pertaining to their particular interests. These are usually accompanied by a sarcastic comment, which invites the recipient as well as mutual friends to continue commenting with sarcasm or other types of offensive but witty banter.[18]

For both men and women, friends demand attention offline and online. I witnessed or was told about quarrels due to neglect among both female and male friends. One member of the Red Foxes Motor Club was chastised by the whole group following his absence from several outings after starting to date a new girlfriend. 'It was fine when the group bothered me about it, but later my best friend wouldn't return my calls.

I thought he was being a child, but he was really upset that I hadn't seen him in weeks,' he explained.

Other friends use social media subtly to express their disappointment in friends they perceive to be less than loyal. One woman told me that one of her best friends had recently become Facebook friends with her ex-boyfriend's new girlfriend.

> I was a little hurt. She was supposed to be my friend. I know she still sees my ex sometimes because they were friends even before we started dating. But it seemed funny she added this new girl. The next time I saw a meme about friendship, I made a point to share it and tag her. Not only to remind her how close we are, but also to show that girl, maybe she had my ex-boyfriend, but my girlfriends stay with me!

For groups of friends, interactions such as tagging, commenting and particularly joking through Facebook both strengthen the friendship, especially in times of absence, and also make visible these friendships – and thus how the friends are positioned in the community. Even when individuals are not able to see their romantic partner or friend in person, the relationship can be maintained and made visible for purposes of authenticity through interactions on social media. This suggests that Hospiceños experience anxiety, jealousy and expectation, as well as comfort and trust in friendships, in much the same ways online as they do offline. For them online interaction is not just a pale reflection or a less authentic means of expressing relationships as compared to face-to-face interaction. Their emotional involvement demonstrates that there is little value in trying to separate offline and online aspects of their relationships; they are intertwined, and interactions in one mode develop from their interactions in the other.

Building trust on social media

While connections to family and romantic partners are important for gaining authenticity within the community, the visibility of these relationships is particularly important when meeting new people. The visibility of other relationships can alleviate suspicion, particularly in new romantic situations. After Jhony described to me the online romance he had with the Brazilian woman, he told me that now he only pursues

women whom he meets through mutual friends, though this includes using Facebook. 'It's much better meeting a friend of a friend, because you know who they are. They are nearby and have the same interests. And you know they are real.'

Though he said he would not admit it to his friends, he continues to search for love online.

> My friends do it too, even though they won't admit it. Before it was Badoo. Now people use Facebook, and that's almost as good as real life because you can find out so much about the person. If they don't have many friends you get suspicious. But if you have friends in common there's no reason to worry.

Thirty per cent of survey respondents said that they had dated someone they met online, but almost none used applications or websites specifically designed for that purpose. Miguel, who also told me he occasionally uses social media to meet women, further explained.

> People don't trust things like dating websites, or something like Tinder. You don't know who the person is. You can't see their friends, or really a profile on the application. But people trust Facebook. If you're looking at someone on Facebook, you can see your mutual friends, and you can see where they are from and maybe their hobbies. So you get a sense of the person, who they really are. You know they're not fake.

These young men feel that Facebook offers a much fuller representation of the person, and seeing an expanded profile allows the viewer to 'authenticate' the person by seeing their social network – their family, friends, colleagues and acquaintances. To encounter a mutual friend or acquaintance in the person's friend list reduces suspicion of artifice and increases confidence that the person is authentic – both 'real' in the sense that they are not using a fake profile, as well as similar in the sense that they are located in the same social sphere. On the other hand a short list of friends unknown to the user indicates a level of artifice to the profile, signalling that perhaps the person is not to be trusted.

At times social media not only makes visible social networks, but also facilitates their expansion. More important than writing statuses, or even than posting photographs, memes, videos or links to websites of interest, relationships are fostered through the commenting in which people engage. It is not unusual to find a single sentence status update

that has more than 20 comments by Hospiceños. Many comments are positive and supportive. When a young woman posts a new profile picture, it usually receives comments from all of her close friends and relatives expressing essentially the same thing: 'Oh daughter/niece/friend/cousin, you look so pretty and happy!' When someone expresses a complaint, for example neighbours playing music too loudly, comments usually range from 'How annoying!' to 'Do you want to borrow my big speakers so you can show them your music is better?' These comments generally serve a function of staying in contact and supporting friends and family, simply by reminding them that their Facebook friends are paying attention and care about them.

Others comment in humorous and mocking ways – particularly male friends, as I mentioned above. Alvaro, when returning to Alto Hospicio from visiting family in Santiago, wrote a one-word status message: 'Travelling.' The first comment was purely informational, asking 'From where to where?' and Alvaro responded with an equally simple answer 'Santiago – Alto Hospicio'. But from there the conversation diverged.

> Alvaro's cousin: Did they inject you to travel?
> Alvaro: I know asking will have negative consequences, but no. What kind of injections?
> Alvaro's cousin: Haha, all the animals when they travel, they have injections to sleep. Be careful, the fines are steep for animals that don't get injected. Good luck on your trip!

After this initial exchange, 20 more comments appeared – from Alvaro's other cousins, friends and even one friend's mother. All played off the joke that he lacked certain 'civilised' attributes and should be treated like an animal while travelling.

This type of mocking language is similar to ritual insults such as 'joning' or 'signifyin' that linguists discuss for African American Vernacular English (AAVE) speech communities. When successful these language games demonstrate verbal skill (or in the case of Facebook or Twitter[19] written language skill) and social status.[20] The speakers and audience share the understanding that what is being said is open to evaluation for their skill with verbal play.[21] Unlike AAVE ritual insults, however, in the context of Hospiceños on Facebook the ability to make a witty comeback is not necessary. As Alvaro demonstrated in his reply, he understood that it was an insult – 'I know asking will have negative consequences' – but this neither detracted from his response nor did it

negate the power of the original insult. Instead the meaning is nego-tiated and then built upon in further comments, in a group effort that reinforces social ties. Furthermore, these exchanges build on local com-mon knowledge (such as Alvaro's cousin's [incorrect] assumption that everyone would know that animals were injected to travel), which high-lights the importance of community within these exchanges.[22]

It is also noteworthy that these exchanges take place in comments rather than in private messages. Such mockery is aimed not only at the subject of playful insult, but at a wider audience as well, playing on shared cultural knowledge.[23] And in Alto Hospicio this humorous form of exchange almost always makes extensive use of Chilean language conventions, in another level of marking authenticity as a member of the language community. The ability for others to add to the joke, or even just respond with 'hahaha' creates a common space for people to converse in a playful way. In effect almost all commenting, whether explicitly positive or joking, serves to form cohesion, not just between the post writer and the commenter but among all those who comment. In the case of Alvaro, many of the people who commented did not know each other personally. Yet all played off one another to create a complex running joke among a wider social group.

This type of cohesion has impacts that extend beyond social media as well. Community is created not only by supporting friends, but also in the instances in which friends of friends begin to engage directly with one another. Several people told me that they first 'met' a friend by see-ing their comments on a mutual friend's Facebook posts. At times they might jokingly spar or build on one another's mocking jokes within the space of Facebook comments. As Miguel put it:

> If you have a friend and they write something funny, then you might comment. And then friends of friends – people you don't know – may see that comment, and then maybe you get into a dis-cussion with that person. Eventually you see that you keep com-menting on the same posts, and you'll become Facebook friends. A few times this has happened to me, and then I end up at a party with that person, and it's almost like we already are friends. After that we might do activities together, like really become friends.

Creating a semi-public dialogue, visible to friends of friends who often join in these joking exchanges, these individuals become first poten-tial and then sometimes actual friends. In turn becoming Facebook friends leads them to engage in activities face to face, whether sharing

meals, playing sports, going out or any other number of leisure activities. Having more local acquaintances also helped in finding a new job, buying and selling used items online, or even in searching for potential partners.

Authentic citizenship online

Interactions on Facebook actively maintain relationships, communication and social ties in Alto Hospicio. Yet they also build community through creating new relationships. Social media posts serve as visual markers of these relationships, which then authenticate the relationship to others in the community. In a marginalised community, where suspicion often acts as a barrier to senses of citizenship connected to community belonging, this visibility is vital. It provides a way of ensuring an individual's authenticity in order to develop trust.

When I asked Hospiceños to send me 'selfies' to include in this book, not a single person sent me a picture alone without prompting. Men sent me photographs of themselves with friends, women with their children or nieces and nephews, and teens with their classmates. The message was clear: individuals see relationships as more definitive of 'who they are' than any form of individual self-expression. Even the selfie – often thought of as the ultimate example of self-centred performance on social media – is in Alto Hospicio a way to represent the self as enmeshed in relationships with others. Each person may not consciously decide to make their relationships visible in order to appear as an authentic character on social media, but they do actively judge others on these criteria, perpetuating the social script.

In family relationships (whether sanguine or fictive), romantic partnerships and friendships, Hospiceños publicly perform reciprocal interactions on social media. The importance they place on the visibility of each kind of these relationships online reflects the ways in which connections to other people in Alto Hospicio are a key part of what it means to be part of this community. Because relationships are important to maintaining the prevailing normativity of Alto Hospicio, these social scripts tend to reinforce the discourses of homogeneity that are clear in discussions of race and class (as discussed in Chapter 1), as well as gender (which Chapter 5 will explore). Thus the visibility of relationships online becomes a key component of the normativity of Alto Hospicio – not because there is any inherent connection between relationships and normativity, but because in this context both constitute

a performance of being an integrated member of the community and a 'good citizen'. Furthermore, as the practice of becoming friends with a mutual acquaintance makes clear, once an individual is authenticated as a member of the community he or she is trusted to be included in new social circles much more readily. In essence, social media acts as a conduit for building and sustaining relationships as a mode of reinforcing local norms, citizenship and the idea of community itself.

5
Work and gender: Producing normativity and gendered selves

One day while scrolling through postings I noticed a controversy brewing on 31-year-old Omar's Facebook wall. He had posted some text – meant to evoke a mixture of sincerity and humour – about his vision for the future.

> Searching: for a woman who wants me to cook her lunch and clean the house. She is required to work, buy the food and treat me to drinks occasionally. Also maybe buy me an Xbox. Send me a message!

Several men posted supportive comments or 'liked' the post, but a few of Omar's female friends and acquaintances wrote comments which accused him of being *flaite*, or scummy, for such a post. One complained about men in general: 'Why do men think they can just be lazy and someone will take care of them? You're perfectly capable of working. Time to go look for a job!' To this other men responded that women were perfectly capable of working as well, yet no one complained when a woman moved in with a man and let him support her.

While this argument was not resolved in the comments on Omar's Facebook wall, it does reveal some of the deep cultural assumptions that circulate in Alto Hospicio. These assumptions maintain that there is something of a symbiotic relationship between men and women. Men almost always work outside the home and women often maintain the daily functioning of the house. They clean, cook for the family, take kids to school, care for younger children, go to the utility offices to pay water, electricity, cable and telephone bills, and otherwise organise the daily life of the family. Men work long hours to ensure that there is sufficient

income to keep the home running. Women at times work outside the home as well, but when they are with a male partner these jobs are usually considered supplementary income.[1] The daily lives of individuals, and thus their self-understandings, are deeply affected by this gendered division of labour.

Omar had recently quit his job at the mine due to chronic health problems aggravated by the high altitude of the mining operation and was considering other work options. I ate lunch with him and his mother Ximena one day, and over a bowl of rice and lentils she asked him, 'Gordo, what's your plan for getting a job?' He responded with frustration, listing some possibilities. Then he changed his tune. 'Wait a minute! Constanza [his sister] has never had a job. And she has two kids. You never ask her when she's going to work. Why me?' Ximena laughed and reminded him that Constanza had a fiancé who also worked at the mine and provided for her and her children. 'And I need you to take care of me. I'm getting old!' she added.

As previous chapters have shown, social scripts in Alto Hospicio are deeply laden with expectations of homogeneity – in terms of class, race, education, access to resources and even what is acceptable to show off. Yet gendered forms of normativity are just as deeply embedded in the social and economic lives of Hospiceños. Omar's post demonstrates the ways that differences in expectations for women and men adhere to normative social scripts surrounding gender, sexuality, families and work. When Omar expressed his desire (whether sincere or ironic) to live outside of this norm, his expression was met with criticism. Most notably this criticism came primarily from women, suggesting that they did not see gendered normativity as an oppressive structure, but as something that was mutually beneficial.

These gendered expectations, which in part form notions of sexual citizenship, are closely tied to practices of work and labour, both within and outside of the home. Social media becomes a key ground on which these expectations are expressed, challenged and most importantly reinforced, regulating the boundaries of acceptable and unacceptable ways for men and women to behave. Social media provides both access to a world of examples of different gendered assumptions and an arena in which to test out other possibilities. But in Alto Hospicio social media is most often used as a stage for many individuals – both men and women, both young and old – to reinforce forms of gendered normativity and 'good citizenship' that have structured social life in Alto Hospicio and Northern Chile in recent decades.[2]

Work and industry in Northern Chile

Since the Great North was incorporated into Chile after the War of the Pacific (1879–83), its economic activity has always been defined by its natural resources: first nitrate, now copper and the Pacific Ocean ports that allow for a proliferation of international trade. Mining in particular is essential to not only the North, but to the nation as a whole, making up 60 per cent of the nation's exports and a large part of its GDP.[3] Scholarship on mining in Chile is plentiful, but almost always focuses on economic and environmental issues, particularly in relation to indigenous groups and corporate social responsibility.[4] While these are important concerns, the impact of mining and what may be called the mining lifestyle on individuals' daily lives and self-understandings should be equally important to anthropological analyses. Analysis of labourers' personhood, the conditions in which they labour and even the structure of life outside of the workplace are of equally vital importance to understanding the reorganisation of the labour process within neoliberalism.[5] The ways in which such work regimes intersect with gender and citizenship are of further importance in understanding normativity. The lens of social media allows us to appreciate how mining not only effects the environment and economic systems, but also people's daily lives, interpersonal relationships, sense of identification and notions of what makes a 'good' Northern Chilean citizen.

Hospiceños suggest that about 25 per cent of male residents work in mining, many of whom also have several family members who work in the industry. Most mining employees spend 5, 7 or 12 consecutive days working 12-hour shifts. During these work periods they live in dormitories at the mine. Social media is incredibly important for miners during these work weeks, providing key links between distant family members. Older miners use text messaging and increasingly WhatsApp to communicate with their families, while younger men keep up with their friends' latest news on Facebook and use WhatsApp to communicate with girlfriends and their parents. Many miners lament that the worst part of the job is feeling so far away from their friends and family. One miner even described life at the mine as being in an 'asylum'. Yet many also say that the highlight of the job is the fact that their schedules allow them to spend a good deal of time with their families. When working 5, 7 or 12 days at a time, miners are usually entitled to an equal number of free days, so rather than weekdays and weekends, life for mining families is often divided into weeks-on and weeks-off.

Jorge and Vicky moved from Arica to Alto Hospicio with their two young children, Alex and Gabriela, in the mid-1990s, so that Jorge would have a shorter weekly commute to his job as a mining machine mechanic. When Alex graduated from high school Jorge encouraged him to take a job at the same mine, and eventually Gabriela began dating their colleague José, also from Alto Hospicio. When I met them in 2013 Jorge, Vicky, Alex, Gabriela, José and Samuel, Gabriela's son from a previous relationship, all lived together in a large house in the centre of Alto Hospicio. The men's shifts overlapped by a few days, so the house often filled and emptied like an hourglass. Jorge would leave on Monday night, then José on Tuesday and Alex on Wednesday. At times this coincided with Samuel's father's schedule of visits, and only Vicky and Gabriela would be left in the house. Then, as the new week began, one by one the men would return to the house, and the time that Vicky and Gabriela described as lonely and boring would become busy and lively.

Both miners and their families live in a sort of waiting game for weeks off. In Vicky and Jorge's family this means that, while the men work, the women try to accomplish as much in the home as possible. Mining companies pay sufficient salaries to enable the earnings of Jorge, Alex and José to support the extended family of six people. Vicky and Gabriela spend their week cleaning, doing laundry, shopping for food and household items, going to doctor appointments and working on home renovations. In their 'down time' the women watch telenovelas or children's cartoons with Samuel. In the evenings they chat on Facebook with friends and family who live in other cities, as well as with their partners at the mine.

When the men arrive home from the mine the whole family enjoys time together, eating big meals and taking day trips to the beach in Iquique. With half of the family away half of the time, multi-generational families like this usually prefer to live all together. Vicky, in particular, likes having everyone in the same house because her parents and siblings live in Arica, about five hours away. 'If we lived in separate houses I would be lonely during the men's shifts. I'd rather have my daughter and her family here in the house, to keep it lively. If no one's around there's not even a good reason to cook for myself,' Vicky told me.

This arrangement contributes to a sense of matriarchy in the house. Because Vicky is always there and her husband often is not, there is an overwhelming sense that she is in charge. She manages the finances and is not afraid to ask Alex and José for contributions. She is often the one who makes sure that Samuel goes to school and has his homework done.

She does the cooking, but also directs conversation at the table during lunch, the biggest meal of the day. She is a kind and joking women, often calling Alex, José and Gabriela by pet names, but there is an unmistakable sense that she is a woman who should not be crossed.

Of course not all families are so structured by a mining work-schedule, but the division of labour within the other families is remarkably similar. Men most often work in manual labour industries and women care for the home. At times women also work in service industry jobs, but they generally still take the majority of the responsibility for the home, even when working in the paid labour force as well. Many people take jobs in Iquique, particularly at regional offices, at the port or in the Zofri mall. However, it is important for women in particular to work closer to home, so that they can be present for big family lunches, continue to manage day-to-day life in the house, and ensure everyone in the family is organised for their own activities.

The landscape of commerce in Iquique thus greatly impacts the types of work that both men and women take. While Alto Hospicio is a sizeable city, the physical spaces of commerce are quite limited. Those that do exist are almost all small, family-owned businesses (the supermarkets and home improvement store being the only exceptions). Indeed, the majority of commerce that takes place in Alto Hospicio happens in small family-owned *almacenes* [corner stores] or the market stalls of the *Agroferia* [outdoor market]. While the markets have official administration, vendors pay rent for their assigned stalls and there is even a small fee for customer parking, the overall feeling of the place is one of informality. Prices may be haggled, for anything from a head of lettuce to a used smartphone or sweater. One can find kitchen wares, cleaning products, children's toys, small furniture, new and used clothing, power tools, key copiers, cameras, phones, used stereos, pet merchandise and all manner of food products mixed among the stalls.

Shopping in the Agro market remains a normal task for Hospiceños, but Facebook is becoming an alternative to this type of commerce. Used products including furniture, baby-related goods, clothing and even cars are constantly being bought and sold on numerous Facebook pages with names such as 'Everything for Sale – Alto Hospicio'. With no local exchange websites such as Craigslist or Gumtree, or even the availability of eBay or Alibaba for purchasing international goods, Facebook takes their place, as well as partially encroaching on in-person commerce in the *ferias*. While most Hospiceños use these sites to sell the occasional older television or outgrown baby accessories, some entrepreneurs create Facebook profiles

for their small retail businesses which function entirely through the site. These entrepreneurs are largely women who capitalise on internet commerce in order to maintain a business without neglecting their usual tasks in the home.

Even as new forms of labour emerge in Alto Hospicio, work in the city remains quite distinct for men and women. Normative social scripts often incorporate these differing forms of work; in addition, notions of normative femininity and masculinity are often deeply tied to the kinds of work in which women and men engage. As individuals post about their work, it is clear not only that men and women overwhelmingly labour in different manners, but also that they incorporate these different forms of labour into their self-understandings. The ways that representations of both work and gendered expression become visible on social media allows for further reinforcing their prevalence.

Work and masculinity

Men's work in Alto Hospicio tends to be in industries traditionally labelled 'masculine', often revolving around manual labour and skilled crafts. Other than mining, many men work at the docks in the Zofri port, in construction, as drivers of taxis or shipping vehicles, or as electricians or mechanics. These types of work are often central to men's sense of self and are shared with great pride. On Facebook men post memes declaring the value of their profession and the importance it carries in their daily lives.

These men, who dedicate long hours to manual labour, often view work not as something that takes away from other preferable activities, but as something integral to the way that they understand their lives. One cargo truck driver posted a photo that expressed his pride in being a driver – an idealised picture of a truck against a sunset overlaid with the text, 'This is not my job, this is my life.'

One miner expressed a similar sentiment through a piece of text shared as a photograph on his wall, titled 'What is a miner?' where he tagged all of his workmates. The photo seemed to be taken of text that was printed out on a white sheet of paper and posted on the wall in a work place. Of course it is hard to tell if this photograph was taken at this miner's own workplace or had been extensively passed as a meme on social media before he posted it. It could have easily been used to describe work in a number of professions. Nonetheless the miner felt it had particular salience for him and his line of work.

Fig. 5.1 Meme depicting identification at work. Translation: 'This is not my job. This is my life'

> What is a worker? A worker is that man that gives his life for his family. It is he that leaves his family and goes far in order to give them a much better future. That man that is honest and honourable, it is he that doesn't have Christmas, New Years, nor holidays, that doesn't celebrate his own birthdays nor those of his loved ones. That doesn't know summer from winter, because all the days are the same. It is he that like a national flag is washed with rain and dried in the sun. He is that man that doesn't see the birthdays of his children, but always shows their pictures proudly saying "This is my son or my daughter!" His work is anonymous, but his feat is immortal. The doctors cure sicknesses, the architects build, the teachers teach, and I as a WORKER offer the most humble that I have. A LIFE FAR FROM HOME.

It is no surprise that miners develop a strong occupational identity. Isolation and group solidarity, combined with the history of the labour movement in the area, provide a context in which identification with this particular form of work is almost essential for mental health. Miners' experience of collective socialisation, high interdependence, physical proximity, physical boundaries, isolation and danger often contribute

Fig. 5.2 Meme depicting frustration with work. Translation: 'Fucking shift, I want to go down [to home]'

to strong work subcultures.[6] While Hospiceño men's work may not be glamorous, it remains a source of pride and is central to identification and self-understanding.

While work is often integral to men's identification, part of this involves complaining about it. One of miners' biggest complaints is separation from their families and the physical distance between work and home. Many miners post a daily tally of days completed of their shift and days remaining, such as 'Today 5/7'. Others post memes that explicitly communicate a desire to go home. Almost all post Facebook messages on their partners' or family members' walls telling them that they miss and are thinking of them. One man even posted photographs of snow in the Altiplano on his girlfriend's Facebook wall, with the message 'I'm cold!' in an effort to share daily challenges. These types of posts allow the workers to share their daily lives with absent individuals.

Fig. 5.3 Photographs from the mine. 'I'm cold'

In their time away from their families, however, men also create lives at the mine that are not just centred on their labour. They make friends and entertain themselves in ways that allow them to feel something beyond simply being a worker, making their shifts not just 'time away', but an important part of their social lives as well.

Mining is perhaps the most obvious example, but many other lines of work are spaces almost exclusively made up of men. This contributes to worksites being characterised as overall masculine spaces, in which workers often incorporate a joking 'locker room' type attitude. One young man described the attitude as '*mariconeo*' or 'faggy'. He told me, 'Everyone goes around doing things really gay. Joking, touching each other's asses. Bothering each other, like playing pranks on one another. Because it's seven days without your family. You get bored. You invent ways to amuse yourself. Everyone hugs. Just jokes.'

Fig. 5.4 Photograph from the mine. 'At work with my *compañeros*, a good group!'

Fig. 5.5 Photograph from the mine. Miners working in masks for Halloween

Fig. 5.6 Photograph from the mine. Miners celebrate a colleague's birthday in the recreational restaurant at the mining site

Fig. 5.7 A meme illustrating 'the *Titanic*' position

Another young man described a common joke, which he called 'the *Titanic*'. 'If you ever find your friend at the edge of something. Like if there's a gate, or a railing that they are looking over, you just go up behind him and say "do the *Titanic*", and then spread your arms out. Like Leonardo on the boat.' He told me that most of his friends think it is funny and play along, but a few are annoyed and get angry.

This form of joking, often referred to as *weando* in Chilean Spanish, carries a connotation of immaturity and is often contrasted with a more serious life outlook. Alex told me this is even part of a common saying at the mine.

Fig. 5.8 Translation: '*Titanic, and an unforeseen problem*'

De la garita pa adentro	From inside the gate
Anadamos weando	We go around joking
De la garita pa abajo	From outside the gate
Somos personas educadas.	We are educated people[7]

'It means in the mine, we mess around with each other. But in the city, we all say hello to each other, "hello how are you?" more formal. They are two different lifestyles, and we act accordingly.' Yet, as the memes above demonstrate, social media allows for some mixing of the two lifestyles. Despite the physical distance between home and work, social media provides a conduit for workers to have a piece of home while at the

mine, as well as enabling them to continue joking with friends, acting as another form of masculine space while in the city. While the spaces of home and work – particularly for miners – are mutually exclusive and circumscribed, social media allows them to mix the two, thereby mixing their different manners of formal interaction and *weando*.

While this sort of joking masculinity is primarily reserved for work, or at least work friends, men also perform specific sorts of masculinity as part of their families. Men often post explicit philosophies about being a man. These position them as being in charge, the provider of resources or the saviour of the family. One popular meme declares: 'Man is not one that abandons the ship leaving his family to drift. Man is he who takes the problems on his own and his family on his shoulders and rows so the boat doesn't go down.'

Although this meme uses a metaphor of rowing a boat, this form of manual work stands in for others forms such as mining, construction or even office employment that keeps a family 'afloat'. Most men see it as their duty to support the family financially and, as comments on Omar's post confirm, many women are complicit in, or even actively support, this conception of men's duty to work. Both men and women see work as integral to men's self-identification or the ways in which they express who they are to a larger audience. While men often complain about their long shifts at the mine, they also speak of their jobs with great pride and see their work as an important contribution to the family. Many Hospiceños confirm these men's contributions are ways of caring for a family, just as important as women's caring through emotional labour.

Women's work

While many men work in trades in which their interactions are primarily with other workers, women's work is often more geared toward interaction with clients. In performing jobs working with children, the elderly, in Iquique's casino, supermarkets, small shops or in customer service for a local business, women also incorporate their work into notions of self-understanding. In fact, they are often just as adamant about expressing the importance of their work as men are. Michelle, a pre-school educator, always becomes very offended when she is considered anything less than a trained professional. On a number of occasions when referred to as a *parvularia* [along the lines of a 'preschool worker'], she would take time to explain that she was actually an *educadora de parvulario* ['a preschool educator'] and all that the job entails. She would even vent this

frustration on Facebook at times, explaining to the potentially massive audience of social media all of the education and background training necessary for her career.

Many other women work as part of a family business. Because Alto Hospicio hosts so few chain businesses, family-owned corner shops, butcher's shops, pet shops, restaurants and various other service businesses proliferate. Women's labour in these areas is considered essential to the operation and longevity of the business. While such work is not necessarily closely connected to women's self-understanding, it is part of their family involvement which is central to their identification.

Yet the majority of women over 40, and plenty of younger women, do not identify closely with their work outside of the home. Most women who take paid employment work in jobs paid by the hour, for instance in supermarkets, small corner shops, the mall at Zofri or as cleaning professionals.[8] These jobs are usually considered as supplementary income for the family, and are often thought of as temporary. Women may work a few months at a supermarket, but if the family decides to remodel part of the house, or if a relative becomes ill, they are likely to leave their job outside the home in order to dedicate time to these other matters. When the project concludes or the relative recovers, they might begin to look for work again, perhaps taking a job as a cleaner at an Iquique hotel.

As social media gains popularity in Alto Hospicio, many women see Facebook as an opportunity for a side business. Women often sell prepared lunches from their homes, taking orders through Facebook and WhatsApp, or have online retail businesses selling everything from imported handbags to sex toys. Usually they open a separate Facebook page for these businesses, though the proprietor usually makes sure to post announcements on their personal account. While these businesswomen hope for longevity for these online stores, they are equally seen as 'supplementary' rather than essential income for the family.

In July 2014 Maritza launched a new business, Sexo Escondido [Hidden Sex]. She ordered a set of sex toys, including aphrodisiac pills, vibrators, lubricants, handcuffs and massage oil from a company in Santiago. She then created a Facebook page, posting photographs and describing the products, offering complete anonymity to customers, though the 'likes' on the Sexo Escondido Facebook page remained public. She sent invitations from the page to her friends (including her siblings, parents, aunts and uncles). She also made sure to request friendship from the bar in Alto Hospicio, as well as other local businesses, such as a pastry shop and a handbag sales outlet, that operated primarily through Facebook.

She told me that she thought there would be a lot of interest in an online sex shop. Her rationale was that the sex shop in a prominent neighbourhood in Iquique had been in business for years, but Alto Hospicio had nothing like it. She liked the fact that Facebook provides a bit of secrecy for people who may not be comfortable publicly buying sex products.

Several months later, when I asked Maritza about the business again, she told me that she had not sold many products. She remained hopeful, though, because there are not many businesses in Alto Hospicio. She knew that she had a strong base of friends, acquaintances and other community members in Alto Hospicio who would be eager to support a neighbour rather than someone unknown to them. She still had her day job, working as a cashier in a local supermarket, but the family relied primarily on her husband's income.

> I don't worry about selling things quickly, because I have another job. And David [her husband] has a good job. It's more just for fun. If it takes a while to sell, that's fine. More than anything, I just thought it would be nice for the city to have something like this. For people to be able to buy without going to Iquique, and from a community member.

Commerce such as Maritza's sex shop and other Facebook-based businesses takes place without the kinds of bureaucratic oversight to which formal shops or even stalls in the Agro market are subject. They are usually presented as hobbies or fun pursuits rather than business or 'work'. Yet they are also spoken of as vital to the community. Maritza frames her business as fulfilling a need in the community, thus it further functions as a form of service rather than simply a means of making extra money.

Her thoughts are reflected in general perceptions of local businesses. Most people do not see them as advertising to make more money, but rather as making their ability to fulfil needs visible – again conceived as something of a symbiotic relationship with their clients. As institutions (in this case corporations rather than the government) have left the city without more structured means of exchange, individuals and small groups take responsibility for creating services. Regulations are left aside, and the economic relationship is seen as mutually beneficial in Alto Hospicio.

This attitude is particularly relevant for food delivery businesses. Much like the paucity of commercial retail outlets in Alto Hospicio, the restaurant sector is small. There are dozens of small lunch restaurants, about ten Chinese or sushi restaurants, two fried chicken fast-food chain locations and one pizza delivery service. For a city of almost 100,000

people, however, this leaves quite a bit scope to sell more prepared food. Plenty of families operate fast-food type pick up services out of the front room of their home, serving *completo* hot dogs and *salchipapas* – a mixture of fried potatoes and bite-sized pieces of hot dogs. Other family businesses, usually run by women, find success creating a pre-order and delivery service through their Facebook pages. Home-made sushi delivery businesses at times seem to dominate my Facebook newsfeed. In these businesses the owner will publish the daily or weekly specials on the page, allowing customers, with several days' anticipation, to place their orders, and to specify the time that they would like the sushi delivered. On the day of operation the owner will create large batches of home-made sushi, such as rolls with tuna or salmon, avocado, cream cheese and rice, and then send a family member for delivery along with the small cups of soy sauce and sweet teriyaki.

These businesses are so closely associated with women's labour that when Gonz and his brother Victor started their sushi delivery business they listed it on Facebook as 'Ana's sushi', using Gonz's wife's name. Gonz explained:

> I thought people would trust it more with a woman's name, you know? And Ana helps with taking the orders or putting together the boxes, so it's not really wrong. But I always think it's funny when we see a customer and they talk to her like she runs everything. I just stay quiet and smile.

Gonz had the idea to start the delivery business after a major earthquake, when the highway to Iquique was cut off. He often mentions that he does not even like sushi himself, but saw that it was becoming popular in Alto Hospicio so learned how to make it by watching YouTube videos. Then he put in a Chilean spin.

> Chileans like rich food. They like hot dogs with lots of mayonnaise, so much mayonnaise it's overflowing . . . so I tried to make sushi more Chilean, with lots of cream cheese, with avocado and lots of sugar in the rice. And the panko fried rolls are the most popular, without a doubt. So now people in Alto Hospicio can get exactly the kind of sushi they like, without having to go to Iquique. I make it easier for everyone.

Customers enjoy the convenience of delivery, but also see it as a way to support local businesses. For local entrepreneurs such as Gonz or Maritza, these Facebook businesses allow them to supplement other income by

Fig. 5.9 A sushi advertisement. Translation: 'Don't know what to make for lunch??? Don't worry, at Sushiland Alto Hospicio we have the solution. Order your delicious sushi and surprise your family!! We have 20 pieces hot fried in panko, 10 pieces wrapped in scallion, 10 pieces with sesame!! With different fillings like shrimp, chicken, onion, basil and cream cheese. Make your reservation by inbox or call!!'

opening food businesses informally; thus avoiding the bureaucracy associated with having an official restaurant licence. The ability to set their own hours or only open sporadically also allows families to maintain primary jobs, travel or devote time to other pursuits, attending to the business only when they want or need to, depending on demand. In such a way these entrepreneurs, usually women, positioned themselves not only as caretakers of the family, but also as caretakers of the community.

While women often say that they enjoy administering these types of businesses, it is clear that they are not central to their self-understanding – despite the labour they put into these operations, they continue to report their occupations as homemaker or nonworking. Yesenia, who works part-time for the municipality and often volunteers even more time to organise community events, told me several

times that she was 'unemployed'. Her Facebook page, like those of many middle-aged women, focuses on her family and community involvement. These women position themselves as mothers, grandmothers, cooks, organisers and managers. Most women's postings revolve around family and friends, or creative activities that contribute to the home.

Family is very important to most Hospiceños. It often acts as a source of validation (see Chapter 4), as well as acting as a group with whom resources are shared and which is the centre of social life. Many young women, shortly after completing high school, begin their adult lives as mothers, and their Facebook posts proudly show off the latest pictures of their children. However, identifying as a mother involves more. It is often the creative work involved in being a *good* mother, and thus a 'good citizen' that becomes a focus of attention on social media. Pictures of activities with children and craft projects often dominate young mothers' Facebook walls. At times they upload dozens of photos

Fig. 5.10   Photographs of party decorations. 'Decorating a party for my little princess'

Fig. 5.11 Instagram of shopping trolley. 'Today, in the supermarket'

showing off not only their child's birthday party, but also the lengths to which they have gone to decorate, organise and hold the party. Of course birthday parties are not everyday occurrences, and the mundane details of life, such as taking care of the home, are also displayed on social media.

As children grow up, some women feel their primary purpose in life has changed and begin directing their energies towards business pursuits, as discussed above, or more involvement in the community. Such women often post status updates announcing community events, expressing their pleasure at events' success or share pictures of their own involvement. Yesenia often posted photos of events she helped to organise for elderly people in the community, such as the beauty pageant for older women shown below.

While these posts in some ways serve to demonstrate normative notions of interacting in a strong community, they also serve as a form of identification for the women who post them. Though their children

Fig. 5.12 Photographs of community activities. 'They are our queens! Congratulations to all of the older adults of our city . . . And thanks! They don't know how they give me energy!'

may be grown, these activities keep the women active and, as Yesenia suggests, give them energy.

Of course not all women are able to rely on income from men's wages, whether that of their father, brother, husband or son. Although formal marriage is uncommon, separating from a partner with whom an individual shares a child often completely rearranges the daily lives of both women and men.[9] If young people leave the family home to establish their own house with their partner, they often return after a break up. Local priest Padre Mateo confirmed this trend, suggesting that in part young people do not like to get married because they do not see their relationships as permanent, even when they have children with

their partner. Instead, women in particular think of their natal family as the keystone of their family life.

For single mothers, support from the natal family is not always sufficient to maintain their own families. While some women get by working at a supermarket or cleaning homes, with financial assistance from their parents or siblings, others need to seek employment considered more serious and permanent. Many of these women work in office settings in Iquique, leaving their children alone or with family after schooltime; others even work in food service or cleaning in the mining industry. Though working at a mine provides the best source of income by far, it requires week-long shifts away from the family – something many Hospiceños considered much harder for a woman than a man. 'Because it's one thing for a man to be out of the house all the time, but for a woman it's harder,' one male heavy machine operator told me. Many women also complain about sexual harassment in the mining operations, because they only make up about 10 per cent of the workers.

Many male miners seem to feel a certain sense of pity about women who work at the mine. Their sympathy reflects both the women's own alienation from life at the mine as well as the perception others have of the life circumstances that compel women to work in the mining industry. One male mine electrician told me, 'Generally, if [women] are working up here, they need a good salary. Most of the women I know, if they go to work cleaning, it's not that they like it; it's that they live alone, or they have kids and need to support them. So they take advantage of the opportunity for a good salary.' For these women, as for many men, salary is more important than lifestyle and enjoyment of work. It is viewed as a noble sacrifice to make for the family.

While, on one hand, the ways that men and women treat work differently suggests gendered imbalances in the community, most people value work within the home as a legitimate form of labour.[10] Such a belief contributes to the sense of how men and women work symbiotically to balance different types of necessary labour, rather than one relying on the other completely. The normativities associated with types of gendered labour are strong, but many women still often feel empowered and exercise this social power within both the family and the community. While social scripts about gender thus prescribe particular ways for men and women to labour, relate to their families and friends and even express themselves in public, social media reveals how these scripts are usually met without contention.

Gender, work, pleasure

Because work is usually naturalised as either feminine or masculine, labour and gender tend to reinforce one another in individuals' self-understandings. A miner who sees himself as masculine will highlight the masculine aspects of his work, thus reinforcing both pride in his job and using work-related behaviours to reinforce his sense of masculinity. A woman who enjoys working with young children will emphasise the emotional aspects of interactions as the highlight of her job, thus calling upon a typically 'feminine' characteristic of the work – emotional labour[11] – as the reason she identifies deeply with the job. This is, of course, mutually reinforcing. What is always already assumed to be masculine or feminine makes the person who performs the act *feel* more masculine or feminine, and becomes reinscribed in discourse as precisely that which constitutes femininity or masculinity. This is because, as most contemporary theory on gender emphasises, gender is not something inherent in a person, but a socially determined concept. Gender is actively created through various forms of self-expression, behaviours and even unconscious actions that are slowly learned throughout a lifetime along the lines of dominant social scripts.[12] These aspects and actions of individuals, taken together and in the context of other individuals' self-expression, create the impression that gender differences in personality, interests, character, appearance, manner and competence are 'natural'. The gendering of work that is apparent in Alto Hospicio reinforces this appearance of naturalness.[13] As most jobs are primarily held by either men or women, and these divisions by and large fall along the lines of historical gendered division of labour, it is easy to see the boundaries as natural – even though in other situations or contexts, work may be divided differently.[14] Gender is not simply an aspect of work, but is constructed through the work itself.[15]

Work then contributes to a broader sense of gendered normativity, in which the aspects of labour – usually wage earning manual labour for men, and supplementary emotional labour for women – correspond to overall typifications of men and women. Workers of both genders are more likely to accept, or even to be proud of, their labour identity when it allows them to enact gender in a way that is satisfying.[16] Thus it is not surprising that social media expressions about work often reinforce the aspects of work that men and women find most satisfying or worthy of pride. Men portray their work as requiring a tough exterior ('it's cold')

and elements of sacrifice ('A worker is that man that gives his life for his family'), but also is made tolerable through the sort of camaraderie typified by the immature laddish humour among friends of *weando*. Women portray their work as forms of emotional care, often using creativity for the benefit and enjoyment of others (particularly young children or the elderly), and through their work strengthen the bonds of family and community.

The economy of Alto Hospicio and workplace relations have created something of a 'separate but equal' mentality about gendered labour. Yet the implications for these gendered expectations have effects that reach far beyond the workplace (whether that is away from or within the home). These divisions in many ways structure a kind of gendered citizenship in which being a trusted member of the community relies on following gendered social scripts related to labour. Though these self-understandings may not be entirely conscious or explicitly articulated, they inform actions. Because these expressions are usually implicit rather than explicit, simply asking often does not elicit clear explanations of these gendered identifications. However, social media is one visible way in which they became manifested.

The types of gendered expression apparent in the division of work also become manifested in men's and women's general styles of expression on social media. As evident in the previous chapter, the ways in which men and women relate to their friends of the same gender is often different: men assume joking, sarcastic tones, while women post emotionally charged memes aimed at their female friends or children. Similarly, when men and women post about the types of activities that give them pleasure, they continue to follow the dichotomy of manual and emotional labour.

Many men spend a great deal of time posting memes, pictures and status updates related to vehicles. Motorcycles, cars, trucks and jeeps are relatively cheap, either purchased new from Zofri or used from other traders in the area, so they are well within most families' means. Yet rather than presenting vehicles as consumer goods, they are usually portrayed as a site of (pleasureful) work. Gelber writes that at the turn of the twentieth century in the United States, the typical middle-class man began taking over home chores previously done by professionals. This shift happened without cultural resistance because 'household construction, repair and maintenance were free from any hint of gender role compromise.'[17] Particularly in Northern Chile these realms correspond to the types of manual labour the majority of men do for wages,
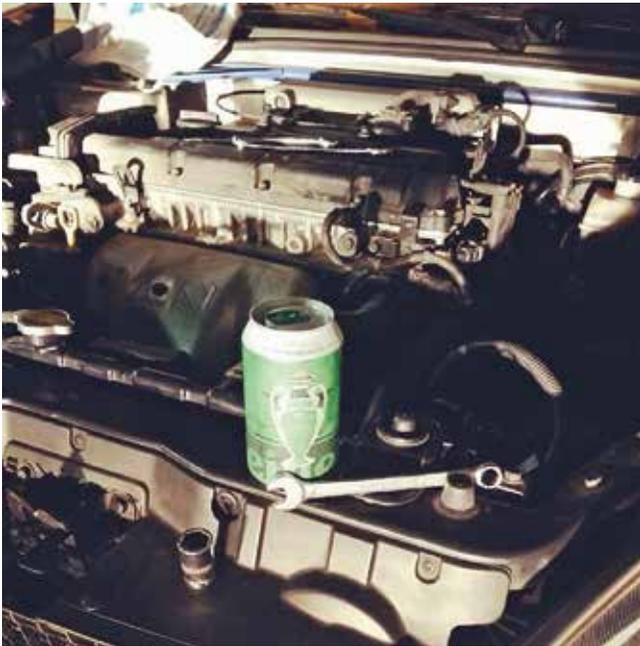
Figs. 5.13 and 5.14   Photographs of work or modifications on vehicles

thus their theoretical market value gives them masculine legitimacy. Framing these activities as being performed for the family's benefit reasserts this already strong conception of masculinity. Photographs of vehicles on Facebook rarely simply show off the car; they usually portray a modification, such as special lighting, or the process of work, such as engine maintenance.

While some women are part of this 'car culture', and are usually welcomed by men, it remains clear that they are women participating in something masculine, rather than their presence serving to make the cultural form more feminine. The meme below, which suggests, 'Just because she loves cars doesn't mean she is less feminine', seemingly complicates the gendered association between cars and masculinity. Yet it only posits jeopardy for femininity, suggesting that the overwhelming masculinity of cars could be powerful enough to de-feminise a woman. Though it rejects this postulation, the meme (and thus we might assume those who share it) never question the association between masculinity and vehicles, as might a phrase such as 'Just because men like cars doesn't mean they are any less masculine'. Instead, because the activities associated with cars corresponded to the types of manual labour that are part of jobs heavily populated by men, the association with masculinity remains unchallenged.

Similarly, men's enactment of family-related tasks is often framed as a welcome helpful hand. One meme, depicting a man decorating a cake, suggests, 'Just because you help your woman in her work does not make you less of a man. On the contrary, it makes you a unique and great man' (see Fig. 5.16). This meme, similarly, does not question 'woman's work' as being based in the home and taking care of a family. Instead it reassures men that 'helping' is not enough to erase their masculinity; rather their masculinity is so deeply instilled that doing something deemed feminine simply reaffirms one's status as a 'great man'.

These memes, which reference forms of labour associated with another gender, further suggest that, while types of work for men and women are naturally different, there is no shame in doing work that pertains to the other. Yet in reaffirming individuals' ability to cross gendered work lines, these memes reinforce the idea that this line indeed exists. That which is naturally 'feminine' about women and 'masculine' about men cannot be erased through their individual behaviours or hobbies.

Fig. 5.15 Meme depicting gender assumptions. Translation: 'Just because she loves cars doesn't make her less feminine'

Fig. 5.16 Meme depicting gender assumptions. Translation: 'Because you help your woman in her work doesn't make you less of a man. On the contrary, it makes you a unique and great man'

Normativity and sex(uality)

Memes that depict a man doing 'women's work' or a woman pursuing 'men's interests' actually serve to strengthen gendered assumptions. In many ways expressions of sexuality on social media also strengthened the connections between manual labour for men and emotional labour for women. This appears most explicitly in reference to men's work, as again they identify more closely with their paid labour than women. This was especially true for men working in the mines, because expression of their sexuality is constrained while at work. Given the 90/10 per cent gender division, and rules that prohibit women from entering men's dormitories and vice versa, the miners I spoke with described heterosexual activity at the mine as a complicated feat. They suggested homosexual relations could be slightly easier, but public bathrooms and shared dormitories did not make it particularly easy. Instead pornography was widely thought of as a substitute for sexual intercourse. As one male mining mechanic jokingly put it, 'There's a microtraffic in porn at the mine, and it's shameful on a world scale.' Social media is key to these exchanges, with individuals trading short videos via their mobile phones. Another young man who drives large vehicles carrying mining extract explained that 'for every worker, they have 20 friends in the city who send them stuff too', whether music, amusing videos or pornography. 'And no one is ashamed', he concluded. Though the mechanic described the prevalence of pornography as shameful, he did so in a sarcastic way, actually reinforcing the driver's point that no one is ashamed of it. While in other situations the prevalence of pornography might be considered inappropriate, within the mining context it was accepted as a natural alternative to actual sexual relations.

Indeed there is little shame for men who express sexual desires and frustration about their inability to fulfil them while at the mine, whether they are in a relationship or not. Such enforced abstinence is often portrayed as one more form of sacrifice that miners make in order to support their families, and thus is part of their pride in their work. This manifests in a genre of somewhat self-deprecating memes that miners post about the perils of infrequent sexual activity.

These memes are passed around as part of the humorous and immature *weando* social relationships between men, strengthening homo-social bonds but also reaffirming masculinity through connections between sexuality and their labour. Not only does their work make them more masculine because it supports their families and relies on

skills associated with masculinity: it is also a sign of their sexual virility. To express frustration with weekly abstinence confirms the sexual desire assumed to be part of manliness. The following meme, though seemingly from a woman's point of view, is often posted by men on the last days of their shifts. 'Today he comes home from his shift. He has seven days in the mine. He comes home like a Bolivian truck.' This meme is particularly locally suited, relying on knowledge that a Bolivian truck – frequently seen travelling from the port up through the Altiplano to the Bolivian border – is usually overloaded with goods to be delivered in Bolivia. The metaphor suggests men coming home from the mine are 'overloaded' with sexual frustration, while playing on local stereotypes that subtly denigrate Bolivians.

Fig. 5.17 Meme posted by a miner about pent-up sexual energy after a week at the mine.
Translation: 'Today he comes home from his shift. He has seven days at the mine and comes home like a Bolivian truck'

Women are far less likely to post explicit references to sexuality, though their desires are referenced in more subtle ways. At times they post sexual memes depicting nude or scantily clad bodies, obscured by a foggy camera lens and overlaid with text expressing sentiments such as 'being with you one night is worth the wait' or 'what I want with you I don't want with anyone else'. When women do post memes with explicitly sexual messages they often portray sexuality as simply a substitute when more romantic forms of connection are unavailable.

While not all social media users post content related to sexuality, it is certainly not uncommon and is rarely commented upon in negative ways. In fact sexual content only seems to cause a stir when it involves overly graphic visuals. The fact that references to sexuality are quite common and tolerated suggests that sexuality is considered to be a natural part of individuals' self-expression. The connections drawn between men's work and their sexuality serve further to cement the naturalisation between masculine forms of labour, men's gender expression and heterosexual sexuality.

The fact that women are less likely to post explicitly sexual content reflects two interrelated factors of gender and sexuality.[18] First, in the context of Alto Hospicio, femininity is more likely to be understood as something that women 'naturally' possess, whereas men's masculinity is an achievement, attained in part through heterosexual sex, or at least representations of sex online. As something of an achievement,

Fig. 5.18 Meme depicting sexuality. Translation: 'If you're going to play, play with my clitoris, not with my heart. It feels better and it doesn't break'

masculinity is also expected to be more performative than femininity,[19] requiring men to affirm their manliness through self-expression (particularly on social media); women's femininity is called into question far less often. Often, both in daily life and on social media, men who fail to perform in ways that their peers regard as sufficiently masculine are chastised. 'Insufficient masculinity' is evidenced by anything from a man not finishing his beer to not supporting his family. While some popular memes refer to 'a real man' as someone who goes to great lengths to maintain his family economically, others chastise men whose girlfriends are more masculine than themselves. This may be evidenced by pressuring her male partner to finish his alcoholic drink by shouting '*al seco maricón culiao*' [drink it all, fucking fag].

While '*maricón*' is often used as a homophobic slur,[20] it also at times indicates other forms of failed masculinity,[21] much as 'fag' does in American English.[22] However, the liberal usage of *maricón* I noted both in daily speech as well as in social media posts does not necessarily indicate homophobia, but rather suspicion over non-normative gender performance. It is not uncommon for people to identify themselves as lesbian or gay on social media, either posting romantic messages on their partner's Facebook page or explicitly using hashtags such as #gaychile or #iquiquelesbiana on Instagram. In the public eye, however, these individuals usually follow normative gendered expectations. Many gay men upload selfies of themselves at manual labour jobs next to pictures of their partner, and women describe how pretty and sweet their girlfriends are. Though gay men are granted a bit more leeway in terms of expressing music tastes (such as Britney Spears) or types of conspicuous consumption (posting Instagram photos of Dolce and Gabbana cologne advertisements) than straight men are, overly camp expressions are absent. Alex gave me a clue to this absence when he compared his gay uncle to a gay neighbour he had in his old neighbourhood.

> My uncle, he's calm. He has a male partner, but he's not like showing it all the time. He's just like any other guy. He works at a hotel, and is really close to his family. The contrary example is my old neighbour who is always going around, talking like a woman, wearing flashy clothes. He calls attention to himself. That's why he has problems. The neighbourhood kids mess with him. I don't think it's safe for him. But my uncle, he is always fine. Because he is a *normal* guy. Most people will say 'I have no problem with gay people, I just don't want them showing it off.' So when they're calm, like my uncle, no one really cares. It's totally fine.

This reflects drag performer Pablito's fear of his family finding out about his night job, while they are perfectly content knowing that he is gay (see Chapter 1). Maintaining separate Facebook pages allows him to perform publicly as a gender normative individual, while keeping his activities that go beyond these norms more private. As Alex's narrative makes clear, these normativities are closely connected to work. Alex did not emphasise his uncle's employment, but he did highlight that he provides a source of income, thus connecting his normativity to the fact that he holds a 'normal' job. He also mentioned his uncle's connection to his family, as well as the fact that his outward appearance corresponds to normative expectations of Alto Hospicio.

As in most other facets of daily life, normativity is a deciding factor in whether social media posts or other forms of expression are acceptable. Gay men and lesbians in part disrupt what many Hospiceños assume to be a natural universal order of complementary polarity (male/female; heterosexual/homosexual; masculine/feminine) in which gendered behaviour, desire and expression relate in a congruent and coherent manner. However, most individuals' adherence to other forms of normativity, and particularly those associated with work and family involvement, are sufficient to grant them 'good citizen' status.[23] Thus for both men and women of any sexual preference, adherence to social scripts related to gendered work functions as a form of authentication. The expression of labour, gender and sexuality on social media is often intertwined, representing the conjunction of the three that serves to reinforce and maintain the others.

The point here is not that all Hospiceños fall into polarised, binary gender categories. In fact, as many of the examples in this chapter demonstrate, people deviate from these ideals all the time. While labour in part creates the structure on which these gendered ideals rest, it is also labour that acts as the conduit through which they are at times challenged. Despite the fact that Maritza's Facebook sex shop was not terribly successful, her expectations that female customers wish to purchase sex toys clearly evidences that adherence to social scripts which equate masculinity with sexuality and femininity with romance are not universal among Hospiceños. And the ways in which miners joke with each other, doing 'the *Titanic*' or other 'faggy' pranks, demonstrates the ways in which their notions of masculinity are actually quite flexible. Of course, self-understandings include aspects of sexual desire and behaviour. However, as the treatment of gay men's and lesbians' gender expression makes clear, in the context of Alto Hospicio gender normativity supersedes non-heteronormative

sexuality.[24] Adhering to gendered normativity allows leeway in terms of sexuality because individuals are still perceived as following the appropriate social scripts, particularly when they are legitimised by their economic activity.[25]

However, the ways in which gender is performed and policed on social media reveal the normative ideals of gender in Alto Hospicio. Certainly representations of non-normative gender and sexual expression appear on social media. Yet they are usually framed in ways that support social scripts of complementary masculinity and femininity, rather than challenging this binary. Most Hospiceños do not see these forms of normativity as oppressive, but instead understand them as natural preferences. Yet what is perhaps most revealing is the fact that rather than providing a space for discussion and debate about such assumptions, social media is a visible public space for reaffirming and reinforcing these normativities. Those who disagree or have non-normative preferences do not seem to feel empowered to speak out through these media. Indeed, questions of who is empowered to speak, and about what topics, reveal the extent to which certain forms of normativity are embedded and actively maintained within the community.

Productive gendered citizenship

While scholarship on gender normativity (and non-normativity) is abundant, understanding how these norms are constituted and why they prevail is always context dependent.[26] In the case of Alto Hospicio, adherence to normative social scripts in many diverse areas of social life, as well a strong division of labour, provides the context in which gender normativity is highly pervasive. While in some contexts work, gender and sexuality are not closely linked,[27] in Alto Hospicio there is a tight relationship between the three. The prevalence of either men or women in a form of work becomes evidence that the job demands specifically masculine or feminine qualities, and consequently that individuals of a particular gender might be best suited for the work.[28] These assumed predispositions toward manual or emotional labour are also thought to reflect gendered preferences for types of labour as well as leisure activities. As these ideas become embedded within individuals' self-understandings, they further entrench binary conceptions of gender. While there is considerable flexibility in notions of proper gender performance, this does not undermine the appearance of inevitability

and naturalness that continues to support the division of labour by gender.

The close connection between acceptability, gender normativity and work emerges from the importance of labour to marginalised identification in Alto Hospicio. Marginality is associated with the extraction of resources, including labour. T. H. Marshall defines citizenship as 'a claim to be accepted as full members of the society', yet questions whether the inherent inequalities of market economies can be reconciled with notions of full membership.[29] While in many instances neoliberal citizenship is defined through consumption,[30] Hospiceños' marginalised citizenship is defined through productive labour. Participation in the labour market – and thus the ability to pay taxes, participate in local schools, raise families and engage in other activities that make people an integral part of their local communities and institutions – can be understood as a form of participatory citizenship that allows those often excluded from citizenship to make citizenship-like claims.[31] The centrality of work to this claim to citizenship therefore means labour is also central to notions of normativity.

Given the importance of wage labour in contemporary economies, it comes as no surprise that work is central to the ways in which individuals understand their lives in Alto Hospicio. In structuring family relationships as well as those within the community, work is a mediating factor in almost all of the relationships that Hospiceños think of as important.[32] While work may be important on some levels for individuals in any context, it is particularly important in Alto Hospicio because it provides another level of authentication, demonstrating the individual's position in the community and marking them as a 'good citizen'. Salient social roles allow individuals to understand themselves as well as present themselves positively to the community[33] through reference to their occupations, forms of unpaid labour and other ways of gaining income that resemble a hobby rather than a career.

When Omar expressed a desire to not work outside of the home, therefore, he not only expressed something contrary to the normative gender divisions in Alto Hospicio – he also expressed something understood as contrary to identifying with marginality. To not want to work, in many ways, framed him as a 'bad citizen' who, rather than contributing to his family and community, hoped for an 'alternative lifestyle'.

By providing space for gendered expression, as well as identification with particularly gendered activities or aspirations, social media is also central to expressions that meld gender, work and citizenship.

To be a 'man' is to provide for the family; to be a mother involves emotional and creative work. These gendered prescriptions for identification do not necessarily correspond to the lived experience of all Hospiceños, but they do highly structure the ways in which they express their self-understanding online. In so doing they reveal the ideals of good, gendered citizenship that are central to Hospiceños' focus on normativity.

6
The wider world: Imagining community in Alto Hospicio

On 1 April 2014, around 8:30 pm, an earthquake measuring 8.2 on the Richter[1] scale struck 50 km from Alto Hospicio. The buildings shook violently for three minutes and the electricity went out. In complete darkness people began to evacuate the apartment complexes and houses as another earthquake, this time measuring 7.8, trembled a few minutes later. These earthquakes caused seven deaths, but the real disaster unfolded over the coming days, weeks and months.

For almost two weeks there was no electricity or running water in the city. The highway that connects Alto Hospicio with Iquique suffered giant fissures, leaving many stranded below or forced to walk 13 km uphill in order to arrive home. Service stations were closed to all except emergency vehicles, so very few people were even able to leave the city. Thousands of families had severely damaged homes and tent cities popped up in every neighbourhood of Alto Hospicio. The national emergency service team organised water tanks that made rounds through the city, and provided toothbrushes and blankets to those in need, but to many people's anger only allotted one of each per family. Those whose homes were beyond repair often waited more than a year to gain access to more stable, temporary, trailer-like housing. Hospiceños deemed these measures an inadequate governmental response.

The perception that government assistance during this time was both insufficient and slow to arrive only exacerbated Hospiceños' feelings of disenfranchisement. While citizen groups from nearby Arica and Antofagasta (each about five hours by car) organised volunteer brigades equipped with water, nappies and other essentials, Hospiceños were outraged at the slow response of the national government. They complained to neighbours in their tents, in central plazas, in the market as

it reopened and, of course, on social media. There was no electricity, but people charged phones on emergency service generators stationed throughout the neighborhoods, or even on car batteries. With everything else at a standstill, social media use was one of the only ways to pass the day, waiting for things to return to normal, and it remained widespread in the post-earthquake atmosphere.

Whereas Alto Hospicio residents rarely take great interest in sharing news articles, in the post-earthquake atmosphere they popped up all over Facebook feeds. Those with dormant Twitter accounts began to tweet again and photographs of the destruction filled Hospiceños' Instagram accounts. Tomas, who had graduated from high school a few months previously, posted a photograph on Instagram showing his family in a tent in the plaza in front of their apartment complex. He wrote the caption, '*En el refugio esperando cuanto temblor venga . . . saludos desde #altohospicio #palaspeliculas #palasnoticias #palmundo*' [In the shelter waiting out so many aftershocks . . . hello from #altohospicio #forthemovies #forthenews #fortheworld]. Though young Instagram users often wrote hashtags such as #altohospicio or #chile as a way to represent the local, Tomas's hashtags departed from this usual behaviour in explicitly announcing that the representation of Alto Hospicio and what happened there were 'for the movies, the news and the world'. Though he did not actually expect that the movies or world would pay attention, these hashtags expressed hope.

Hospiceños' photographs included the fractured highway, falling roofs and homes with residents' belongings strewn all over the floor after being shaken from the walls, shelves and drawers. Others posted photos of makeshift camps, depicting the new living arrangements of those whose homes were destroyed or were still too unstable to be inhabited during continuing aftershocks, ranging from 6 to 6.5 on the Richter scale. Photos of people waiting in queues for water, petrol and vaccinations were popular, as were images of empty grocery store shelves. The captions and hashtags for these photos seemed to ask for recognition not only of the destruction that occurred, but also of the continuing hardships people were facing, living in a city that had essentially lost its entire infrastructure.

These photographs give insight into the ways people may imagine themselves as part of, or at least worthy of attention from, the nation from which they normally feel excluded. While some neighbours wrote their claims to being part of the nation on cardboard signs, these young Instagram users claimed a place in the nation simply through using hashtags such as #porlasnoticias and even more commonly #chile.

Fig. 6.1 Author's own Instagram photograph of a sign near a large apartment complex declaring '[Alto] Hospicio is also Chile'

Hospiceños' use of outwardly focused hashtags during this time suggests that these users saw the internet and social media as an outlet for their voices. Though they usually assume no one is paying much attention to heir mundane selfies and footies, in a time of crisis they attempted to seize new media to reaffirm their place within the nation – if only as a claim to necessary relief and resources, as well as provide witness to the world of what was happening.

Social media use after the earthquake, of course, represents an anomaly which sharply contrasts with the usually locally focused ways in which Hospiceños used social media. Yet particularly in declarations that Alto Hospicio must not be forgotten as part of the nation-state, it is clear that Hospiceños, despite their feelings of disenfranchisement, still feel a claim to being part of the Chilean 'community'.

Hospiceños often experience their positioning in contrast to 'the wider world' and the Chilean nation-state, rather seeing self-sufficiency and commitment to the community as more important than wider affiliations. Yet their affiliations at all levels serve to shape and reinforce

the forms of normativity that prevail, thus contributing significantly to the social scripts by which their daily lives are often affected. While the internet, and social media in particular, have been considered phenomena that unite the world, increase communication and possibly even homogenise people from diverse backgrounds, in Alto Hospicio, social media has overwhelmingly reinforced a focus on the local 'community'.

Imagining community in Alto Hospicio

Hospiceños understand themselves as a group that is politically unimportant because politicians do not need their support or vote. However, marginality is about much more than simple political representation. To be marginalised is partially about disenfranchisement, but also about living without basic needs being met. It is about being a producer rather than consumer. Hospiceños lack both political power and spending power, and within a neoliberal political economy they are then left out by both centralised politics and the consumerist system.

Hospiceños often see their commitment to the community as more important than wider affiliations. In recent years anthropologists have admitted that the 'communities' they study are rarely as cohesive as early anthropologists once took them to be.[2] Whether communities are rooted in a geographic location or are conceptualised around a shared interest, activity or worldview, they are not natural formations, but are actively produced by the people who consider themselves to belong to the particular community, through actions and discourse.[3] In essence community only exists when it is imagined to exist by those who want to belong to it.

Identification with community in Alto Hospicio works on different levels, much as Nicole's proclamation, 'I am Hospiceña, I am Nortina and then I am Chilena' demonstrated. Hospiceños see themselves as disenfranchised, but as deserving of a place in the Chilean nation. Though they lack 'horizontal comradeship', or the sense that they are on an equal footing with the cosmopolitan Others of Santiago, their claims that 'Hospicio is also Chile' represent a reconception of what being Chilean means.

Alto Hospicio is a small enough city that inhabitants do indeed meet face to face, but as their anxieties and suspicions about strangers (discussed in Chapter 4) demonstrate, people do not immediately, automatically or naturally become part of the community simply as a result of their presence there. Without sufficient social connections,

unknown individuals are still strangers; they are considered to be the type of people who might put on airs or even steal mobile phones in the plaza. Instead normativity is a powerful discourse through which an idea of community cohesion is imagined. Rather than their physical proximity being sufficient, most Hospiceños feel that the basis of their sense of community comes from their shared social values and feelings of disenfranchisement. Belonging, for Hospiceños, takes the form of shared exclusion from institutions of power and collective responses that include resource sharing, dissent and ideological distancing from the people and places that they associate with this institutional power.

Frazier suggests that the northern region of Chile has been 'only partially incorporated into the nation'.[4] Nation-building, as a political project, relies on individuals' investment in that project and, as we have seen in Alto Hospicio, investment in the nation-state is minimal. But Hospiceños do not necessarily reject notions of nationalism and citizenship. Within the context of two centuries of explicit "Chileanisation," Hospiceños instead reconfigure what they understand the nation to be, framing their own marginalised experiences as those which are authentically Chilean and the experiences of more centralised urban cosmopolitan citizens as Other. Through social media Hospiceños highlight certain aspects of Chilean identity that correspond to their own experiences. Just as many young people used Facebook and Instagram to provide witness during the earthquake, residents take to social media both to make visible the aspects of Chileanness with which they identify and to represent the local area in ways that correspond to certain ideals of homogenisation.

Disenfranchisement from national politics

I started field work in Alto Hospicio just two months before a national presidential election, yet there were hardly any visible advertisements for presidential candidates in Alto Hospicio. Instead almost all political posters advertised local *Consejo Regional* [Regional Council] candidates.

My neighbour Sarita, a single mother of four in her forties, explained her views on politics, echoing those of many other Hospiceños.

> [Politicians] are all corrupt, nothing changes, and it's just like choosing the least terrible candidate. Everyone says they're from the *pueblo* [people], but once they're in government they only help themselves, or businesses that pay them off. Everything's run

by the businesses here, and the rich get richer and the poor get poorer. The middle class get a little poorer all the time too. Soon we middle class people won't exist!

Sarita's exasperation reflected the apathy expressed by many other Hospiceños. The weekend before the election I was talking with a group of young miners who would be on their week-long work shift during the election. I asked if they had to vote early or if the company gave them a leave to come back to Alto Hospicio to vote. 'Oh, well, I'm not going to vote. I don't know how it works with the mine,' one of them told me. The others agreed, saying they thought the company would give people time off without pay to vote, but none of them saw much point in voting. 'The candidates are all the same anyway. And they never do anything for the North. They just take our money for the benefit of Santiago.' This was the first presidential election in the country under a new law that repealed mandatory voting, and many people suggested that the population was relieved that they no longer had to participate in a system they perceived as corrupt and useless.

Indeed, in the whole of Chile, 5.7 million out of a possible 13.5 million (42.2 per cent) voted in this first presidential election in which voting was voluntary. The northern region of Tarapacá, with a turnout rate of less than 39 per cent, had the lowest voting rate.[5] As the newly elected (for the second time) Michelle Bachelet said in her victory speech from

Fig. 6.2 Graffiti that reads 'Don't vote . . . yes to the popular struggle'

Santiago, 'Today a lot of Chileans did not vote. We must persuade them to believe again, not in me, not in a party, not in a political group. We have to make them believe again in democracy.' With this Bachelet acknowledged a wider sense of exasperation with politics, of which Hospiceños were only a part but were also the most extreme example.

Exasperation with the political system was quite clear, looking at Facebook postings. Humorous memes disparaging the leading candidates flooded my news feed. Many played on the theme of 'If your mother is going to vote for Michelle [Bachelet], steal her identity card.' In fact almost all political postings were humorous memes, shared countless times. While a few links to newspaper articles appeared, originally composed messages proclaiming one's personal reasons for voting a particular way, or even reasons why a particular candidate was a poor choice, were practically non-existent.

As in many Latin American countries, Chile has a plethora of political parties and in the election of 2013 there were 17 candidates. This necessitated a run-off election after the initial vote on 17 November 2013. In the weeks leading up to the second election on 15 December memes intensified, particularly comparing the two remaining candidates. Both Michelle Bachelet and her adversary Evelyn Matthei are blonde, middle-aged women who actually grew up together. They represent the Socialist Party and the Independent Democratic Union, respectively, both of which are considered mainstream and centrist.[6] Many memes played on the fact that the women are very similar, yet at the same time very different from the average citizen of Alto Hospicio or Iquique.

One meme makes light of Matthei and Bachelet, playing on their bright coloured clothing. With Matthei in yellow and Bachelet in red, the meme refers to them as Bilz and Pap, a popular Chilean soda brand that features a red soda and a yellow, papaya-flavoured drink. The brand's marketing scheme declares '*Yo quiero otro mundo*' [I want another world], promoting themes of creativity and imagination. Yet the meme suggests these women '*viven en otro mundo*' [live in another world], separating their lives from the marginalised experiences of Hospiceños.

Memes such as these are the primary way through which Hospiceños express political positioning on social media. They are not shy about communicating their criticism or distrust of politicians on Facebook, but the amount of original content is very limited. Individuals usually post memes without comment and, unlike most other Facebook activity, they garner very few comments from friends, though often receive dozens of 'likes'. Overall people simply express disdain or annoyance at national politics, seeing it as very far removed

Fig. 6.3   Meme depicting Matthei and Bachelet corresponding to popular soda brand Bilz y Pap

from their concerns and having little impact on their daily lives. As Alex told me some time after the election, 'I'm not very political. I only know that I don't feel any benefits from the government.' This did not surprise me. Alex had previously declined joining me to watch the movie *NO*, which depicts the 1988 referendum to decide Pinochet's permanence in power. It follows the opposition – the 'No' vote – and their advertising campaign that eventually wins the people's right to elect a president democratically. The film, directed by Chilean Pablo Larraín, was nominated for a foreign-language Oscar and was considered an international success. But Alex said he had no interest in seeing it because he didn't really understand politics. 'People of my parents' and grandparents' age, they lived through it. But I don't really know the history, so movies like this . . . well, I'd rather watch *The Walking Dead* or something.'

Juan, a local activist and former student movement leader, helped to explain the apathy I sensed among many Hospiceños.

There is a lost generation on the left in Chile. The [Pinochet] dictatorship did an excellent job of getting rid of the opposition. They killed or 'disappeared' everyone. There was no one left at the end. No one to lead a resurgence. So we're starting over.

Fig. 6.4 Meme depicting 2013 presidential candidates
Bachelet (on the left): My father was in the Chilean Air Force
Matthei: My father was also in the Chilean Air Force and he gave me the moon and the sun
Bachelet: But my father gave me cake with Colun (brand) caramel, he gave me pancakes with Colun caramel and he gave me powdered pastries with Colun caramel
Matthei: It shows, fatty

The violent political atrocities experienced a generation ago, along with the enduring political separation that Hospiceños perceive between the North and Santiago, in large part explain the fact that people feel alienated by national politics. Most Hospiceños reserved the label 'politics' for national issues from which they usually express distance. Though they very strongly identify with particular aspects of Chilean culture, they see their citizenship as Chileans through a frame of disenfranchisement and disinterest. Yet for many their sense of community requires a certain level of participation in local politics. By framing this type of activity as 'community involvement', they separate what they see as necessary concentration on local issues from what are usually considered corrupt political dealings on the national level. Such demarcation allows them

to denounce 'Politics', while remaining involved in the local dynamics of the municipality.

Local P/politics

Juan and his *compañeros* [comrades or political associates] see themselves as part of the rebuilding of the Chilean left.[7] They run for city office, organise art exhibitions and performances, stage protests against neoliberal multinational capitalism, arrange observances promoting environmental responsibility and have even founded their own political party. These former classmates from Universidad Arturo Pratt in Iquique see local change as the means through which large-scale change is possible. Juan, who acted as the de facto campaign manager for Raquel's *Consejo Regional* campaign, told me the night before the preliminary election, he would 'obviously' vote for Raquel, but had not yet decided which presidential candidate to vote for. For him the local election was far more important.

The primacy of the local was visible from both Juan and Raquel's Facebook posts about elections as well. On a daily basis both posted articles from local newspapers about local candidates. One evening, while I was drinking tea with both of them, Raquel explained her platform, which focused on greater access to public services and reversing the massive waves of privatisation that have happened in Chile since the 1980s. At the end of the conversation Juan mentioned a YouTube video that I should watch for more background on Raquel's campaign. The next day he sent me a link to the video saying, 'This should explain some of what I was talking about last night. Let me know if you understand'. The campaign video,[8] for presidential candidate Roxana Miranda of the *Partido Igualidad* [the left-wing Equality Party], gave a brief overview of the process of privatisation in Chile and promoted Miranda's platform of re-nationalisation for certain sectors. With the video Juan connected Raquel's campaign to a larger one, yet he framed it not as Raquel being part of a national movement, but rather as the national candidate's platform serving to explain further Raquel's local platform.

Even outside of election season, the memes these *compañeros* post on Facebook correspond to local or regional concerns, such as the borders with Peru and Bolivia, rather than national issues. They often post memes simply as remembrances of important events in local history, such as actions by the Pinochet regime or Nitrate Era labour organisation. These memes at times call for participation in

protests or events, and other times simply provide a visual reminder of the past.

Each year, as mid-December approaches, the Facebook pages of Hospiceños are filled with Christmas-inspired posts. Pictures of the family wandering through the forest of lighted trees that overlooks the city of Iquique from Alto Hospicio appear alongside funny memes about a Santa Claus too lazy to deliver presents after smoking marijuana. As in much of the world December is a time of celebration, with friends and family sending each other seasonal greetings messages through social media. Most Hospiceños post pictures of their homes decorated with artificial trees and lights or showing children participating in Christmas-themed activities at school.

But mid-December in Northern Chile is for some a time of remembrance of the Santa Maria School Massacre. On 21 December 1907 thousands of striking miners from nitrate fields in the area were gunned down under General Roberto Silva Renard, after they refused to disband. They had been camping for a week in Iquique to appeal for government intervention to improve their living and working conditions. It is estimated that about 2,000 people were killed. For many decades the government suppressed information about the massacre. However, in 2007 the government conducted a highly publicised commemoration of its centenary, including an official national day of mourning and the re-interment of the victims' remains.

The festive photos and messages shared on Facebook in the days leading up to Christmas are interspersed with forms of remembrance for this historic tragedy. These posts often call for participation in remembrance ceremonies and protest marches. Though most often posted by people in their twenties and thirties, these events are constructed for all generations. As the flyer below attests, a protest march is often accompanied by live bands with political messages and activities and toys for children, including balloon animals.

While in other parts of the country much more importance is given to remembering events such as the Pinochet coup (11 September, 1973)[9], in the north, even when remembering the past, local concerns supersede national issues. In particular it is important to acknowledge events that highlight class and labour solidarity across other kinds of borders and differences. For young activists local politics are indeed Politics, connected to larger issues and histories, but with their own distinctive local foci.

Young activists such as Raquel and Juan both use social media to espouse their own political views as well as to demonstrate the

Fig. 6.5 Meme posted by several young Hospiceños calling for participation in an event commemorating the Santa Maria School Massacre. Translation:

Torturous Work during the Nitrate Era	Commemorative Act – Santa Massacre of Iquique
The workers arriving to strike in Iquique	Walking with memory we create history
Live music, silk-screening, balloon animals and more. . .	21 December – Cemetery no. 1–16:00

relationships between their forms of politics and those of larger movements. But in Alto Hospicio only a small minority engage in this type of political awareness. Only 11 per cent of survey respondents said that they felt social media had facilitated or influenced their participation in politics. Yet interpretation of the word 'politics' is key here.[10] I did not strictly define the scope of politics. In interviews and daily conversations it was clear that most people defined politics as operating on a national level, while local matters were framed as community issues. Facebook groups promoting the building of a hospital in Alto Hospicio, opposing high parking fees in Iquique or simply organising neighbours to advocate for more resources for their neighbourhood are popular, but not considered to be 'Politics'. Thus people contribute to the community in other ways, often using social media as a conduit, and in so doing they perform their contextually normative visions of what the community should be. Posts often envision the kind of community citizens desire

for Alto Hospicio. Middle-aged adults, and particularly women, often use social media to promote the types of community programming that they see as important to a close-knit community.

Yesenia, who works part time for the municipal government, is one of the most visible examples of this social media usage. At least once a week she posts pictures and a short written recap of a community event she has attended or helped to organise. These include family-oriented celebrations at Carnaval time and a travelling telescope and astronomy programme, as well as events she and her colleague Paula organise monthly with senior citizens. Her commentaries on the senior citizen events are often very indicative of her ambitions to make the community safer and more civically oriented.

Near Halloween in 2014 Yesenia posted a series of photographs taken during a costume party with older adults in Alto Hospicio, accompanied by the caption, 'Enjoying myself with the older adults of our city . . . We have to care for them and protect them as we would like for ourselves.' Especially in her observation 'we have to care for them and protect them as we would like for ourselves', Yesenia performs her own community involvement, aiming to set an example for those who view her profile. She is not merely demonstrating what she has done, but also calling on others in Alto Hospicio to participate in imagining a particular type of community with her. These posts usually precipitate comments from other women who have participated in the programmes, as well as dozens of 'likes' from participants, neighbours, colleagues in the municipal government and other acquaintances. Not only is Yesenia performing what she promotes as positive community engagement; she is offering a vision that is supported by others in the community as well.

In these types of posts residents such as Yesenia actively construct a vision for community horizontality, treating others as one would like to be treated, caring for those less fortunate and sharing community resources. In the context of a nation-state perceived to be absent, posts like those of Yesenia, Juan and Raquel carry a subtext of self-sufficiency, acknowledging that community members must create their own social support or methods of change. Yet such posts also promote normativity, in that they depict no individual aspiration to rise above a struggling community. Instead they call for collective aspiration in which each individual should help to improve the community together.

Fig. 6.6 Photographs of community activities. 'Enjoying myself with the older adults of our city. . ..We have to care for them and protect them as we would like for ourselves'

Being culturally Chilean

While Hospiceños often distance themselves from Santiago and national politics, their sense of being culturally Chilean is strong. Memes demonstrating their Chileanness are common on Facebook as well as platforms such as WhatsApp, Tumblr and Instagram. Yet what one calls Chilean culture is highly context-dependent, and proximity to cosmopolitan centres, as well as class, education and racial identification, impact significantly on what individuals consider to be the hallmarks of Chilean society.

Much of what Hospiceños are redefining is the sense of social class that is representative of 'true Chileans'. Mendez[11] argues that class boundaries in Chile play a critical role in social life, and 'middle-classness' is considered central to Chilean authenticity in Santiago.

Yet Hospiceños use Santiago as a foil for what they see as authentically Chilean, positioning this urban, middle-class identity as an exception. Instead they perceive their own marginalised experiences to be more representative of true 'Chileanness'.[12] Hospiceños are quick to distinguish their lived experiences from those in the cosmopolitan capital, and in doing so they render important their own sense of normativity. Postings on social media then are an important clue to the ways in which Hospiceños envision the nation.

Hospiceños often use the name 'Santiago' to stand in for people whose lives are defined by class-consciousness, consumerism and international connections, the politicians who funnel resources away from the region and, most importantly, the national politics from which Hospiceños feel disenfranchised. Rather than seeing themselves outside of the nation that Santiago represents, however, they envision Santiago as the anomaly, the cosmopolitan city in a nation of otherwise

Fig. 6.7 Meme depicting distance from Santiago. Translation: 'He's going to Santiago. He's going abroad'

working-class normative people. In essence they reverse the logic of marginality, positioning marginalised people at the centre and those wielding the power to marginalise as Other. This sentiment is particularly well represented with the meme shown in Fig. 6.7, shared by several people in their late teens and early twenties in November 2014.

One young man in his early twenties who shared this meme wrote as a caption: 'It's really far from everything.' By this he means that the distance between Santiago and 'everything' is more than just physical: the capital represents a different kind of mentality and lifestyle as well. It is home to politicians, cosmopolitan types and rich people – particularly those who profit from mining in the northern region.

While Santiago may appear to foreigners and those living in the Metropolitan Region as 'Chile proper', it is not the 'Chile' with which people in the North identify, as evidenced by their frequent use of the hashtag #SantiagonoesChile ['Santiago is not Chile']. They see the North as being more normatively Chilean in many ways. In July 2014 many Hospiceños circulated the meme 'Ten reasons to confirm that Jesus was Chilean' (see Fig. 6.8). The meme was shared by both those who regularly attended Catholic, Methodist or Evangelical church services and those who considered themselves agnostic, atheist, questioning of religion or otherwise non-religious. In essence the humour of the post made it fair game for any Chilean.

Each of these reasons reflects something considered 'Chilean' that is not associated with exceptionalism or a certain class affiliation, but that spans these divisions. To elaborate: (1) Chile is a major wine-producing country, which means that wine is quite cheap and enjoyed by people all over the country and of all economic means, as (4) indicates. Of course nothing goes with drinking like parties, for all occasions, as illustrated by number (9). Hospiceños also perceive an essential part of their 'Chileanness' to be the loyalty expected from their friends and other parts of their social networks; betrayal is considered the worst sort of treatment, thus (2) and (3) correspond to their conception of friendship (in addition the English words 'brother' and 'bro' are used widely to substitute for 'amigo' [friend], particularly among young men). Number (5) is particularly salient in the North where fishing is a major industry, after mining and importation; and though prostitution is not particularly common or visible in Alto Hospicio, the sentiment corresponds to the idea that one should be friends with all types of people, rather than feeling superior. Familial constructions often dictate that children live with their parents until marriage (and often for quite some time after), thus allowing many under the age of 40 to get by without working,

Fig. 6.8 Translation: Ten reasons that confirm that Jesus was Chilean.

1. He was good with wine.
2. Long hair, an entourage, and he treated all as 'brothers'
3. One of his crew betrayed him
4. He never had money, but never lacked booze
5. He was friends with fishermen and prostitutes
6. He lived with his mother until he was 33
7. He never worked
8. He did tricks . . . walking on water
9. When he knew he was going to die, the first thing he did was organise a party
10. He was good with words, and if he didn't have a way of explaining he invented stories

corresponding to numbers (6) and (7). This meme thus reframes seemingly mundane aspects of a normal Chilean life, playing on common knowledge of religion.

Indeed many of the posts identifying with a conception of Chileanness highlight mundane forms of social life. Some post pictures of typically Chilean foods such as *completo* hot dogs or *pichangas* [a dish of French fries covered in onion, beef, sausage, and fried egg]. Others show the flag as displayed for the *fiestas patrias* on 18 September or a

game played by the national football team. On other occasions the language used is sufficient to indicate an association with Chileanness.

In fact language is probably the most commonly used way of expressing national identity on social media, even when used only unconsciously, for example in writing daily status updates on Facebook. Chileans are known for distinctive pronunciation that involves dropping letters, slurring words together, heavy use of slang and adding the practically meaningless 'poh' to almost every expression. They also conjugate the second person informal as *vos* rather than *tú* so that one should

Fig. 6.9 Meme depicting Chilean language conventions. With slang spelled out [with standard Spanish]:
Papi weon [tipo] culiao [jodido] fome [aburrido] kasikasik [jajajaja] la wea [cosa] Wat [qué]?
La wea [cosa] cuatica [loca] weon [tipo] culiao [jodido] kisaikias [jajajaja] fome [aburrido] Habla bien hija de puta
Approximate English translation:
Dad fucking dude the bullshit is boring.
What?
The crazy shit fucking dude it's boring
Speak correctly bitch

ask a friend '¿como estai?' rather than '¿como estás?'. This conjugation also creates the common phrase '*cachai*?', from *cachar,* to catch – used just as commonly as a phrase-ending insertion similar to 'you know?' in English. Hospiceños, like other Chileans, also frequently employ the word '*weon*'; somewhat equivalent to 'dude', which can mean either friend or asshole. Chileans realise this language use is unique and view their ability to distinguish themselves so thoroughly by linguistic means as a point of pride.

So while users may unconsciously embed language in social media posts, they also take a self-conscious approach to language usage and often highlight its rarity, particularly in funny memes. Though first created and shared by a Bolivian with Chilean friends, the meme in Fig. 6.9 was widely shared by Hospiceños, exhibiting a sense of pride in their humorous (but difficult to follow) style of Spanish.

While this example is perhaps exaggerated (though not necessarily more exaggerated than some people naturally become with a few Cristal beers) and intended to be funny, it also portrays a form of national pride associated with the use of Chileanisms. The distinctive form of speaking marks one as unequivocally Chilean, and thus included within a nation they imagine as horizontal (with the exception of Santiago) – in terms of being working class, racially homogenous and otherwise normative.

De-politicising indigeneity

Hospiceños represent the Chilean nation on social media in certain ways, in order to include their own community within that imagining, but they also imagine their own city in certain ways to promote the sort of solidarity that creates a sense of belonging. Class normativity often takes the form of acceptance of the economic instability that is part of a working-class lifestyle. Yet perhaps more importantly, particularly because Alto Hospicio is a city of migrants, Hospiceños promote national and racial homogenisations in ways that erase specific subaltern identifications in favour of a broader sense of marginality.

While census and survey results suggest about 10 per cent of Hospiceños identify as indigenous, these identifications are not overly visible in daily life. Just as Nicole and her family never mentioned the fact that they have Quechua origins, most indigenous people may identify as such on a survey without seeing this form of identification as central to their daily lives. As such, indigeneity remains for the most part

hidden in Alto Hospicio. Much like other forms of Hospiceño social life, parties, meetings and other gatherings are usually private affairs held in the home, and equally those organised by indigenous people are not publicly visible. I met several Bolivian migrants in Alto Hospicio: young women from La Paz selling plastic kitchen goods in the Agro market; two brothers and their wives, all from Cochabamba, who own a car-wash near the central business district; and several families who live in the poor neighbourhood where 'La Escuelita' afterschool programme operates. Yet these people do not participate publicly in Bolivian cultural activities or celebrations of Bolivian national holidays. Nor do they fly the Bolivian flag in front of their homes, as many Hospiceños do with the Chilean flag. Instead their parties are private, usually held in pueblos in the Altiplano rather than in Alto Hospicio. Their nationality is only made visible by their use of certain distinctive language such as '*pues*' (in contrast to the Chilean "*poh*" – simple filler words) and '*no ve*?' (in contrast to the Chilean '"*cachai*?'—meaning 'you know?' or 'you understand?').

In Alto Hospicio, for the majority of residents, indigeneity is not an important category with which to identify because the sense of marginality in disenfranchisement from national politics supersedes more specific identifications of marginality. Even the *Consejo Nacional Aymara* offers a library and consultation resources for indigenous people seeking to access government benefits, but does not sponsor public events. Their Facebook page is primarily used to advertise such services or general forms of good citizenship, for instance promoting biodiversity and the creation of national parks. Because of the privacy of most personal gatherings, social media is one of the most visible social spaces of Alto Hospicio. Yet in this space indigeneity usually remains either invisible or subsumed within a more general marginality.

When themes of indigeneity and international migrants are visible on social media they almost always represent a non-indigenous Chilean perspective. Chileans by birth complain that migrants are taking resources that rightfully belong to Chileans – for example preferential housing access, greater healthcare coverage or the bonuses awarded to mothers to cover childcare costs. During certain times of the year when these issues become more prevalent, numerous complaints surface on Facebook. Though certainly there are Hospiceños who are sensitive to the migrants' plight, no public condemnations of these types of messages appear. Instead the messages are supported with 'likes' and positive comments or left to stand without response. While indigeneity is officially a category considered 'vulnerable' in state rhetoric, most Hospiceños feel that the financial and political marginality of all

residents should be treated equally. In many ways they resent the extra affordances given to indigenous peoples in such areas as healthcare and housing.

As other scholars[13] of indigeneity have found, discourses of class solidarity related to proletarian ideals contrast with discourses of indigeneity,[14] which distinguish certain people as *more* marginalised, *more* disenfranchised and thus *more* deserving of special treatment. Both kinds of discourses involve notions of marginality, but incorporate the concept in different ways. Given the modes of normativity prevalent in Alto Hospicio, it comes as no surprise that indigeneity is usually discursively erased, while community solidarity is highlighted. Particularly in the context of economic migration based on a mining industry,[15] indigeneity – with its associations with ecological stewardship – presents an imagined threat to the livelihood of the community. Instead downplaying indigeneity marks an individual as part of Alto Hospicio's community, contributing as a citizen to the common good. So, even for Alto Hospicio's indigenous people and migrants, identifications based on economic marginality and desires for belonging are more salient.

However, indigeneity does serve as a form of cultural expression in de-politicised ways, and is often transformed into a shared expression of 'northern culture' which allows all Hospiceños equal participation and enjoyment. Altiplano dances associated with Bolivia are popular in Alto Hospicio, but are transformed from 'indigenous culture' into 'northern culture'. Indeed, many Bolivians denounce the performing of Altiplano dances by Chilean groups, particularly in the context of continuing animosity over land lost in the War of the Pacific. Yet this is a rich part of the North's cultural life; almost every religious feast holiday is celebrated with dances such as the Morenada, Caporales, Tinku and Diablada, along with La Cueca (equally associated with Chile and Bolivia) and dances from Chile's Polynesian territory on Easter Island (Rapa Nui). While debates over whether the dances may be properly considered 'northern culture' or are strictly Bolivian continue outside of this context, no one in Alto Hospicio seems to find noteworthy the fact that most young people who participate are from families who consider themselves within a racially homogenous *mestizo*ness.

Similarly, the Wiphala, a multi-coloured patchwork flag that represents the native peoples of the Andes (including Colombia, Ecuador, Peru, Bolivia, Chile and Argentina), is often used as a visual marker of grassroots politics and community organisation. While ideally these politics are concordant with the interests of indigenous peoples, the symbol is used liberally – from Raquel's *Consejo Regional* campaign posters to

its display at an earthquake relief concert put on by some of Chile's most prominent musicians. In these contexts it is not specifically associated with Andean indigeneity, but becomes a broader symbol of community solidarity. Through this usage, the flag effectively establishes an opposition between Northern Chile and northern Chileans' perceived antithesis of Santiago.

While critics (primarily speaking from Bolivia, Peru or the position of an indigenous spokesperson either in Santiago or representing the more prominent Mapuche group in Chile) suggest these examples of Altiplano dances and the Wiphala are improper appropriations of indigenous culture or symbolism, these debates do not happen publicly in Alto Hospicio. Instead Hospiceños see themselves as promoting the normativity of homogeneity in terms of both class and race. And when pictures of the Caporales dance or Wiphala appear on Facebook, they are understood as northern rather than indigenous, reinforcing social media as a de-politicised space.

During my first October in Alto Hospicio, Juan invited me to a day-long event for what is known in South American usually as Indigenous People's Day (celebrated as Columbus Day in North America). In Central and South America 12 October is observed in memory of the slaughter and colonisation of the indigenous peoples of the Americas, as well as the continuing imperialism experienced by citizens of the Americas from Mexico to the south at the hands of the United States, Canada and European countries. This celebration included a troupe of five-year-olds demonstrating the Chilean national dance of *La Cueca*, an Afro-Colombian singer performing a song from her native city, a Peruvian guitar player and several local activists speaking about community inclusion and social development. To close the programme they organised a group picture of all attendees, including myself. When Juan posted the photograph on Facebook he included the caption, 'We are all Americans'.[16] Indeed, even in this space of inclusiveness and multiculturalism, rather than highlighting indigeneity as a distinctive form of identifying, all Americans were brought together within a discourse of similarity.

International solidarity

While tensions remain between Hospiceños and the international migrants whom they perceive to be taking resources that are rightfully

Chileans', discourses of class solidarity at times overcome even the rifts between native Chileans and migrants. In January 2014 the international court of the United Nations at The Hague decided on a maritime dispute between Chile and Peru. The North is contested territory, even more than 130 years after the end of the War of the Pacific, in which the region of Tarapacá was transferred from Peru to Chile. The Hague's decision did not affect any coastline or cities, but gave Peru more territory for fishing rights.[17] Because fishing in Chile is controlled by a very limited number of oligarchic families, the decision changed very little in terms of economics and trade for most northern Chileans. Many wrote Facebook comments similar to 'All of the fishing industry here is owned by a few wealthy families. It doesn't really matter to me.' Both politically active and somewhat apolitical Chilean users asserted a similar view, but in different ways. Both groups seemed to be communicating that though perhaps the Chilean and Peruvian governments were in a dispute, the people were not.

Some friends did admit to me that they felt the decision to cede some water area to Peru was unfair, but they also acknowledged that avoiding conflict was important. Many said that the decision was irrelevant because economic gain from the sea territory only ends up in the hands of seven families of the oligarchy. However, these nuanced opinions were not published on Facebook, neither through original writing
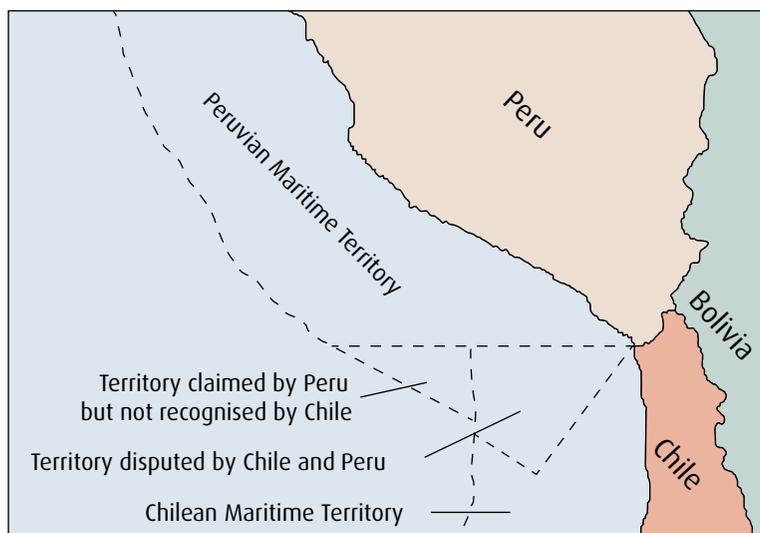

Fig. 6.10　Map of maritime territory

nor links to online sources. Instead solidarity between Peruvians and Chileans overwhelmingly dominated Facebook posts.

On the political side, Raquel and her friend Marcelo both shared a piece of text essentially thanking Peruvians and Bolivians for standing with Chileans during the Santa Maria School Massacre. The text explained:

> In the Santa Maria School Massacre of Iquique, together with Chilean workers, Bolivians and some Peruvians also died. When the consuls asked them to leave, they refused, saying 'We came with the Chileans and we will die with the Chileans. We are not Bolivians or Peruvians, we are workers.'

A local band known for their songs' political content posted a long piece of text from which I draw out some relevant parts:

> Patriots, fellow Chileans . . . Why do we not go to war against Monsanto? Why not fight to recover copper from your country? Why do you not wage war on Spanish companies that rob us when we pay for light and water? Why were you not in solidarity with artisanal fishermen when the Chilean government perpetually delivered the sea to the seven richest families? . . . Chileans and Peruvians, stop being so easily swayed by media sensationalism of the bourgeois press. We should continue fighting together against those that make our lives impossible!

Fig. 6.11 Meme about maritime border. Translation: 'Tell me, are we Chilean or Peruvian now?'
'I don't know, poh [typical Chilean filler word], or I don't know, peh [typical Peruvian filler word]!!!'

Most people who usually stay away from political discussion stuck to humour. Many memes declared sentiments such as 'The sea is neither Chilean nor Peruvian, it belongs to the fish!'

It seemed that everyone was paying attention, but no one really cared. Perhaps because the border dispute only affected the oligarchy, or perhaps because individuals believed an end to the dispute was more important than the particular division of sea rights, these individuals expressed their interest by enthusiastically posting and commenting. It seemed important to individuals to declare 'Yes, I am paying attention!', without taking sides on a matter that was 'supposed' to be important, but in their daily lives simply did not matter. They were communicating that authentic northern Chileans are simply not concerned about the oligarchy's successes or failures. These wealthy families are not part of the local community; like mining companies they extract resources and take the profits elsewhere. Instead, being local means being concerned about relationships with neighbours, whether metaphorical neighbours of the nation or the very individuals who have migrated from these countries and now live right next door.

For most Hospiceños class solidarity rises above international divisions, demonstrating that the wider community imagined by residents of Alto Hospicio may not include oligarchs and other cosmopolitan figures, but does include people like themselves – even if they are from across disputed borders. Because the Peruvians in question occupy a similar marginalised social class to Alto Hospicio residents, they fit a familiar form of normativity. When framed as class allies rather than exploitative indigenous people, Peruvians are easily incorporated into Hospiceño solidarity with other marginalised people.

Similarity, difference, community

Hospiceños use social media both to reflect their imagined notions of community – local, regional and national – and actively to construct these alliances. On social media Hospiceños promote forms of normativity, in this case by creating oppositions to some groups and alliances with others, often depending on the specific context. They affirm community affiliations by highlighting sameness, even in instances of pointing out similarities between the Peruvian working class and themselves, and effectively erasing discourses of difference, such as that of indigeneity, from public discussion.[18] Hospiceños define the boundaries of their community and the spaces and people with whom they identify through

discourses of similarities. For those people they see as inherently different, and the discourses that highlight those differences, they use tactics of distinction to represent their distance. Both usually function along lines of class, at times overshadowing even racial and national differences.

These strategies work through highlighting and erasure. Though Hospiceños' 'Chileanness' is often highlighted through memes and texts, these social media posts focus on shared characteristics between all Chileans and obscure the sorts of exceptionalism and cosmopolitanism attributed to 'Santiago'. Similarly they use tactics of erasure to portray their own community as homogenous. These tactics indeed have the ability to frame some groups as legitimate or included while refusing to recognise others. Indigenous individuals in Alto Hospicio are a key example of this exclusion. As Yeh writes, 'People are not indigenous naturally, but rather by convention and recognition by others'.[19] In erasing this identity, normativity is valued above individual difference. Various forms of non-normative marginality are expected to be subsumed within the widely experienced form of marginality common to Hospiceños' experiences – marginality as defined by class experience.

It is in these tactics that we also see the use of exaggeration to highlight. When a meme refers to travel to Santiago as 'going abroad', it is not meant to be taken literally, but uses overstatement to make the distinction clear. A popular series of memes satirised the class difference felt between Hospiceños and cosmopolitan Chileans from the central region, and featured a character from a popular television *novella* (soap opera). Lita Achonda is the classist mother of the protagonist on the television series *Pituca sin Lucas* [Posh without Money] and the series of memes features her calling various annoyances 'so middle class'. In the meme featured below, she refers to an earthquake as middle class, thus distancing herself (very upper-class by upbringing) from something considered obtrusive in life. Referring to an earthquake as 'middle class' downplays its destructive power, waving it off as merely irritating. Yet framing this opinion as that of someone like the character Lita also distances those perceived as upper class from the realities of Chilean life – and so from the lived experience of Hospiceños, particularly after the 2014 earthquake.

In highlighting exaggerated forms Hospiceños also reveal similarities or differences with a humorous slant so that the message comes across in stark relief. Through humour, and other forms of highlighting and erasure, these imaginings of community serve to reinforce, and at

Fig. 6.12   Meme about class. Translation: 'But what earthquake could be more middle class?'

times wholly to create, discourses of normativity. This normativity is experienced as solidarity in the face of difficult circumstances.

Marginality forms the basis of Hospiceños, normativity as well as their claims to citizenship. Marginality is the standard by which an individual, or even a symbol, is considered to be part of (or excluded from) the Hospiceño notion of community. While the imagining of national communities has often drawn upon symbols, icons and print media in order to bring together people who could not know one another personally,[20] now, theoretically, technology such as social media may allow national citizens to know one another across geographic divides, as well as those of class and other social sector differences. Yet it is precisely social media where Hospiceños maintain these divisions, rather than

overcome them. Performing distance from cosmopolitan Others online refocuses Hospiceños' citizenship on the local, so that they maintain emphasis on normativity, solidarity and marginality. Social media is key, not only to enacting Hospiceños' particular notions of community and politics, but also to shaping their imaginings of what constitutes solidarity.

7
Conclusion: The extraordinary ordinariness of Alto Hospicio

'*q wn*'

Three letters representing two words: '*que weon*'. Of course *weon* is one of those Chilean Spanish words which everyone understands, but which is not quite translatable. It may be used for greeting a good friend, or talking about an enemy – or even shouted when the national team scores a seemingly impossible goal. Twenty-three-year-old Tomás used this word to introduce a meme on his Facebook wall.

This meme, illustrated in Fig. 7.1, makes clear the ways in which everyday behaviours are performances. Included within these behaviours is social media use, where people perform in order to identify the self as a particular kind of person, claim certain kinds of affiliation and place oneself within the world. This meme acknowledges that many people create meaning through a mixture of bodily expression, purchasing particular symbolically laden brands and social media usage, but the density of symbols used within the text evokes exaggeration and sarcasm. The imagined character who writes this text is ridiculous. Tomás acknowledges this ridiculousness by using the word '*weon*', in this instance meaning something like 'what a jackass'.

Using '*weon*', Tomás distinguishes himself from this straw character who might write such a post on social media. Hospiceños usually strive toward an unassuming aesthetic associated with marginality, but this meme describes conspicuous aesthetics and behaviours associated with consumption and cosmopolitanism. Only a cosmopolitan Other would be so insincere as to construct such an image in conscious opposition to normative aesthetics, social identifications and attitudes. And though maybe Tomás and most Hospiceños would say that the types of

Saca el vodka y marihuana para ir a hacernos expansiones, mientras me cuentas que eres bisexual y lo publicas en ask.fm, si quieres vamos a comprar nutella vestidas con vans, shorts pequeños y camisas floreadas o con cuadros. Que no se te olvide llevar tu camara nikon para sacarnos fotos en el baño de starbucks. Te rapas el pelo como skrillex o te haces mechas californianas mientras subes tu foto a Instagram y discutimos sobre si es mejor un mostacho o un infinito, además me muestras tu Tumblr y publicas en Facebook que la sociedad es una mierda, que eres bipolar y que estas jodidamente depresiva.

Fig. 7.1 Meme about hipsters. Translation: 'Take the vodka and marijuana and let's go get expansions (ear stretchers), while you tell me that you're bisexual and you publish it on ask.fm. If you want, let's go buy nutella, dressed in Vans (brand shoes), short shorts and flowered or plaid blouses. And don't forget to take your Nikon camera to take pictures of ourselves in the bathroom of Starbucks. You can do your hair like Skrillex (American electronic music producer) or you put in a lot of highlights while you upload your photo to Instagram and we argue about if a (traditional) moustache or infinity (overly stylised moustache) is better, and you also show me your Tumblr and publish on Facebook that society is bullshit, that you're bipolar and that you're fucking depressed.'

performance described by the text are overt and excessive, the meme also reminds us of the ways in which social media usage is always a performance, even when the idea of conscious presentation is antithetical to the prevailing form of normativity. Indeed, the performances described in this meme are the antithesis of Hospiceños' normativity, in which the trick is to perform normativity on social media while seeming not to perform anything at all.

Social media ethnography in Alto Hospicio

Traditional ethnographies often focus on particular groups within the community in order to make visible broader local cultural expectations and norms. A group such as La Escuelita or the Red Foxes Motor Club might have provided such a focus for an ethnography of Alto Hospicio. By studying social media, however, the same cultural expectations and norms become clear on a larger scale. Because Hospiceños use social media precisely to negotiate these norms, it is an excellent window for understanding a Hospiceño world view: what is expected and what is not; what questions may be asked and which may not; who is allowed to question, or even to make their opinions heard, and who is not; and how individuals not only behave and interact within this worldview, but also how they understand their individual place within (or outside of) it.

Social media also reveals some of the ways in which social life is changing, in both Alto Hospicio and Chile's Great North in general, as a result of new communication technologies. In such a frontier space, often conceptualised by both those who live there and those in the cosmopolitan metropole as a hinterland, advances in communications technology do change daily life. Social media allows people to stay in better contact with family members who are absent, whether as a result of the mining industry or international migration. Social media provides ample forms of entertainment and is even used to organise activities such as dates and group outings.

However, social media has not changed everything. It is popular to praise the opportunities social media provides for bridging socio-economic divides or empowering populations politically. Yet Hospiceños, who are comparatively marginalised in both respects, do not see these new advantages as major uses of social media. Whether new media truly has the potential to reduce global or national inequalities is a question that must be left to other populations. In Alto Hospicio social media

remains an extension of the normative social life of the city, rather than a different realm in which new aspirations may be achieved.

Just as social media does not automatically bridge economic or political divides, individuals do not always use social media to seek new ways of connecting in the world, nor to find means of self-expression not available in the local context. In Alto Hospicio the kinds of identifications that are made visible on social media correspond to community values and the very social scripts which often guide behaviour. Certainly there are some young people (and perhaps older ones as well) who reach across divides – whether geographical or ideological – to encounter new ways of viewing the world, new possibilities or new aspirations as a result of their connection on social media. However, the overwhelming normativity of social media in Alto Hospicio makes it clear that using social media to reject prevailing forms of normativity is a result of the desires of individuals rather than inherent aspects of the media. Social media may facilitate newfound freedom for some – but there is every reason to believe that if social media was not available these individuals would seek this sort of freedom through other channels. Social media tends to reinforce ways of identifying that are highlighted in other arenas of social life (for instance family connections, regional affiliation and humour) and to erase those that are less important to the community (including indigeneity, overt politicisation or non-normative gender and sexuality identifications). Social media in Alto Hospicio is not a space for the proliferation of identifications. Indeed, even Hospiceños' use of aesthetics and visuality online illustrate that, even when a whole world of possibility is available, the visibility of interactions and the public nature of how community gatekeepers moderate others may transform social media into a conservative force.

The power of social media as a conservative force relies on its accessibility to a wide audience, in part because the necessary technology is reasonably affordable as a result of the tax-free import zone. Even in a place such as Alto Hospicio, smartphones and internet access are not considered luxury goods; they are practically necessary possessions for all but the poorest residents, even when refrigerators or stoves are not always deemed essential. Such electronic items are not associated with an extravagant lifestyle, but rather are indispensable for communication. Thus social media and its associated technology have quickly and almost seamlessly been subsumed within the unassuming normativity that dominates social life in Alto Hospicio.

Social media and social context

The central argument of this book is that, for residents of Alto Hospicio, social media acts as an arena in which normative modes of citizenship are not only performed, but also reinforced as important social values. Hospiceños use social media to express solidarity, test authenticity, maintain normativity, perform identifications and challenge conceptions of what true 'Chileanness' is, all from a marginalised position within the nation. Each of these aims of social media usage demonstrates the ways in which Hospiceños' online lives are inflected with expressing citizenship in relation to local, regional, national and global levels. The residents of Alto Hospicio position their own legal status, rights, public participation and sense of belonging precisely in the ways they perform marginalised identifications on social media.

In the first chapter of this book I provide a brief history of the processes (and violent acts) through which the Pinochet regime introduced a neoliberal economic model to Chile. These economic policies, carried forward by post-dictatorship democratic governments as well, have no doubt been instrumental in positioning Chile among the nations that benefit from a rapid and ideally free movement of material resources, people and ideas in the current global economic system. Chile receives immigrants seeking to perform manual labour and is a major exporter of natural resources, both major contributing factors to Chile's place among the world's strongest economies. The majority of Alto Hospicio's residents are caught up in this movement of people and resources, whether as immigrants, workers in importation and exportation or in mining the very resources whose exportation sustains the whole country's economy. Most Hospiceños also have the resources to participate in other types of global exchange using the internet to download music, read articles, watch films or interact with others. Yet within the nation and the world capitalist economic system, Hospiceños remain marginalised.

The marginalised position of Hospiceños has been produced through historical economic conditions, beginning with the War of the Pacific and nitrate mining and continuing to the violence and neoliberal economic shocks of the Pinochet regime. Though the northern region provides economic stability to the entire nation, it remains exploited and politically peripheral; the city of Alto Hospicio itself represents the most extreme case of these two conditions. The stigmas of poverty, crime and inhospitableness associated with Alto Hospicio have created conditions

of suspicion that always already influence social life, including its enactment on social media.

These realities of social life in Alto Hospicio inform a situation in which individuals are more comfortable using social media to solidify local identifications than to imagine new possibilities of global connections. Hospiceños connect to the world through social media, but their aims are not new relationships, wider identifications, broadened self-understanding, proliferation of aesthetic styles or imagined new life possibilities. Rather their social media usage almost always corresponds to performing solidarity within their marginalised community. The peripheral location of Alto Hospicio within the nation serves as a context for the ways in which Hospiceños curate self-representations, identify core self-concepts and test one another's authenticity. In doing so, they imagine their marginalisation to be the quality that makes them authentically Chilean. Being working class and politically disenfranchised marks true cultural Chileanness, thus reversing the logic of centre and periphery.

Political economy and history deeply impact the ways in which Hospiceños understand their place within the nation, and indeed how they imagine their own local community. They contrast the homogeneity, solidarity and ordinariness of Alto Hospicio with the cosmopolitanism and political power they associate with the Chilean government and residents of more central metropolitan areas, specifically the national capital of Santiago. At the same time Hospiceños reproduce discourses of solidarity in connection to proletariat populations, even across a somewhat contested border with Peru. By contrasting their own lived experiences with those of populations more central to the nation, they strengthen their own communal sense of affiliation; Hospiceños believe themselves to be the true Chilean citizens in contrast to the imagined cosmopolitan Others. With these local investments in normativity in mind, it is then clear how social media becomes a mechanism for resisting larger issues and institutions of power – all while normativity remains a point of solidarity rather than a repressive force.

Neoliberalism, marginality and social media

This book takes on the subject of normativity in a neoliberal era – a time in which many assume notions of solidarity have been replaced with desires to distinguish the self from others on any possible level. While

the 'freeing' of capital in some places also liberates individuals from traditional social structures such as the family, connects self-expression to consumption and encourages fantasy and aspiration as personal modes of imagining, almost the exact opposite results emerge in Alto Hospicio. Such consequences reveal that the individualism we often take as a natural outcome of neoliberalism is not always intrinsic to these sorts of economic policies. It is just one of the possible results, always dependent on context, that neoliberal ideologies may produce.[1]

Neoliberal economics beget a whole proliferation of cultural forms, which are always context dependent. For Hospiceños, being unassuming in one's aesthetics, life goals and even social media use marks one as belonging. Others – cosmopolitans, capitalists and politicians – generally are understood to hold more power, but Hospiceños discursively distance them as excessive, superficial and at times corrupt (particularly in the case of the last). In doing so they highlight their own similarity within the community, asserting their marginality through solidarity.

This marginality is closely associated with identification as workers. Rather than consumption it is labour, both in the home and outside for wages, that provides a foundation among Hospiceños for core self-understanding and representation. The socio-economic position of most Hospiceños becomes a source of solidarity, not just within the local community but also cutting across borders, As a result working-class- or proletariat-based normativity, rather than forms of distinction, are important cultural tropes.

Political economy, particularly the dominant industries in the area, do not affect individuals' sense of pride and self-identifications. However, they do impact more broadly upon the very ways in which normative understandings of familial relationships and gendered identifications are represented, performed, taught and usually taken up without resistance online. The family is strengthened as the centre of social life, as well as providing a trusted anchor in the seemingly endless possibilities of internet-based relationships.

Many more individual expressions of self rely on these social scripts about productive activity, which is highly gendered – from acceptable forms of creativity to discussions about sex. While men usually identify as family providers and express pride in the sacrifices they make in order to labour as wage earners for their families, women most often identify as the caretakers of family, expressing their own labour as that of emotion work. These marked divisions between men's and women's work often reinforce forms of normative gender identifications as well as notions of family. Even when lived realities differ from the

norm, expressions of gendered self-understanding on social media serve to reinforce assumptions about gender rather than challenge them. Hospiceños both place importance on the visual representation of family connections on social media and use assumptions about naturalised gender differences as a base for gender-related humour. Through these proliferations of normativity, heterosexual familial structures become essential to Hospiceños' modes of performing and to the regulation of others' performances on social media.

The unassuming aesthetic

While neoliberal economic systems often produce a proliferation of consumer goods and advertising which expands aesthetic possibilities – often even compelling individuals to see aesthetics as central to ways of performing the self – Alto Hospicio has remained outside this formation. First glancing at both public and private spaces in Alto Hospicio, the prevailing form of normativity seems to have effectively erased any sense of aesthetics. Clothing styles, home architecture and decoration, construction of public space and indeed the curation of aesthetics on social media rarely stray from an entirely utilitarian appearance. In spite of the vast options of visual representations available on social media, aesthetics on Hospiceños' Facebook, Instagram and Tumblr pages largely correspond to the types of unassuming aesthetics they curate in their daily lives. This is apparent in the styles of selfies, footies and other sorts of Instagram photographs that Hospiceños upload, as well as in their sarcastic memes, such as that shared by Tomas above.

Yet it is not so much the functionality of items that defines aesthetics in Alto Hospicio, rather a sense of presentation of being inconspicuous and unassuming. When young people want to snap a picture, simply capturing their feet lounging in front of the television set will do. If an individual wants to relate a sentiment – expressing pride, sharing philosophical outlooks or even commenting on politics – a humorous meme works without individual nuance or heightened risk of negative feedback. Yet this seeming lack of aesthetics in Alto Hospicio is indeed a consciously curated form. Hospiceños, particularly those whose families are relatively well off because of involvement in the mining industry, have the option to purchase the latest fashions and add balconies, landscaping or other forms of adornment to their homes. Perhaps even more easily, young people could put on their finest clothing and arrange their bedroom to take a highly stylised selfie, or could curate collections of

beautiful scenes on Instagram. Instead they choose to represent themselves aesthetically on social media within the bounds of normative unassuming aesthetics. By making this conscious choice, Hospiceños develop their unassuming styles as a particular aesthetic, rather than a lack thereof.

This aesthetic in many ways refuses class distinction. While the economy is dominated by prosperous mining and importation industries, the people of Alto Hospicio are by and large the manual labourers rather than owners of these resources. Both the history of labour movement solidarity as well as current experiences of the production process (at times characterised by workers as exploitation) lead to a refusal of class distinction – despite the fact that these workers earn reasonably good salaries and at a basic level are capable of purchasing goods or acquiring other sorts of cultural and social capital that could very well be used in creating distinctions. The conditions of Alto Hospicio demonstrate the overgeneralisation inherent in assumptions that modern capitalism inevitably generates incessant aspirations for greater material wealth or the proliferation of consumption-based class distinction.

Networks, normativity and boundaries

The global and semi-public nature of social media also provides for expansive social fields, in which connections across all kinds of social and geographic boundaries become possible. Yet Hospiceños prefer to connect with people they know, using as a guide the visibility of their social networks inherent in certain forms of social media. Just as I aroused suspicion at first when trying to connect with Hospiceños online, residents of Alto Hospicio tend to be wary of newcomers until their connections within the community become visible. Hospiceños' choices of which social media to use for various purposes often rely in part on the visibility of social networks provided by the platform. New relationships become validated through connections to existing relationships with family, long-term friends, neighbours and work-mates. The fact that young Hospiceños prefer using Facebook as a dating site, rather than applications such as Tinder or Grindr, makes their preference for visible relationships clear. Equally, the practice of making new friends through commenting on mutual acquaintances' Facebook posts demonstrates how visible social connections do the work of authenticating individuals as trustworthy, and thus worthy of time and communication. These communications strategies are indeed quite logical within

the context of historical and political economic processes that have fed discourses of suspicion in Alto Hospicio.

The visibility of networks and communications on social media also makes it an ideal place for performing the boundaries of the expected and expanding the traditional mechanisms of 'keeping people in their place', such as through gossip and indirect language. Social media allows users to prick the bubbles of pretension that they see while maintaining distance from direct confrontation – which would indeed be antithetical to the solidarity which Hospiceños also value.

To act within normativity is to be sensitive to the possibility of diverging from it. As a result it pervades almost all aspects of life for Hospiceños – what they eat, what they wear, what they talk about and how they dream of the future. Individuals express their own personal preferences, styles and ambitions, but the range in which those self-expressions fall is much more limited than might have been expected, particularly given the size of the city[2] and the numbers of migrants from various cultural backgrounds. Those who are not sensitive to this type of divergence are challenged for their boundary crossing on social media at times, by those who feel a stronger interest in maintaining boundaries. Those who challenge in this way, either consciously or unconsciously, highlight the normative ways in which they expect others to express themselves. Social media, as a semi-public space, becomes an ideal stage on which normativity is both reproduced and redefined through these sanctions.

Alto Hospicio, then, helps to explain a core component of social media itself. These shared and group-focused media are an ideal conduit for normativity – but this is also a property of social media that allows it to be taken up easily, without disrupting daily life. Within a very short time social media has become taken for granted and integrated into quotidian forms of communication and presentation of the self in everyday life. Indeed, normativity may explain both what is extraordinary about Alto Hospicio as well as what is ordinary about social media. Social media is an ideal technology for establishing and extending normativity to the rest of social life. In turn it is also subject to the pressures of normativity, so that everyone knows what should and should not be posted, where the limits of obscenity are and in what ways politics may be approached without raising eyebrows.

In many instances humour is key both to testing and maintaining the boundaries of acceptability. Humour ranges from funny status messages and sarcastic comments to ridiculous forms of exaggeration and visual puns exemplified by memes. When someone acts unacceptably,

humour provides a means of chastising such activity without causing shame. But humour also marks the space as informal, and often works to strengthen, reaffirm or even begin new friendships. This type of playfulness allows for commentary on social structure without direct articulation, and acts as a barrier to accountability for sincere forms of social commentary. Humorous memes are used to test the boundaries of the appropriate and possible in a safe way, and thus are integral to notions of normativity. In fact humour may be the key to the ways in which individuals view normativity as desirable rather than repressive.

Humour also reinforces Hospiceños' sense that social media is an authentic form of interacting with friends and acquaintances. Much of the humour on their social media pages works through interaction in comments. Hospiceños even respond to memes by posting corresponding memes in the comment area afforded by Facebook. As Sherzer contends, humour may be used as a test of local knowledge, and when successful constitutes a collective achievement.[3]

In Alto Hospicio the implicit decision not to flaunt wealth and material goods, build striking houses nor express individual personality in self style work all work in order to serve community cohesion. There is little impulse to inspire jealousy. Instead Hospiceños exert effort to maintain a status quo which is obtainable by everyone. Yet this norm requires that individuals define the boundaries of normativity as a public project. These boundaries become clear in gossip, and in resistance to those who appear to cross them. As such, social media becomes integral to maintaining normativity. While the production of normativity is an important aspect of daily social life on the street, in civic society and in personal conversations with neighbours, the project is furthered and made more visible when Hospiceños use social media to perform 'sameness'.

Performing social scripts

Throughout this book I use the concept of social scripts to explain the ways in which normativity makes some behaviours seem 'natural' and expected, while other behaviours are construed as weird, out of place or inappropriate. The idea of social scripts draws on the notion that people are always performing; though they may improvise, basic cultural narratives serve as a platform for these performances. Interaction on social media makes clear the ways in which these scripts are not preexisting, but are constantly constructed by those acting within them. Not all Hospiceños always live within the bounds of what the larger group

might consider appropriate – but it is these very ruptures in naturalised assumptions that make the assumptions visible. Examples of these ruptures demonstrate how those who hold more stake in maintaining normativity often actively reassert the prevailing social norms when they are challenged.

The idea of social scripts also acknowledges the importance of the audience in interaction. Both actors and audiences constantly interpret and redefine the social scripts in the context of their specific history and political economy. Everyday performances on social media tell stories of self-understanding and affiliation, both to the self and others, creating the 'socially real' through the telling.[4] As Dwight Conquergood contends, performance does not necessarily begin with experience, but performance often realises the experience.[5]

Above all, the idea that social media platforms are a stage for performing social scripts to an audience reminds us that social media is indeed 'social'. The interactive nature of social media is key to the popularity of certain platforms and applications as opposed to others. Because Hospiceños conceive of Twitter as unidirectional, they consider it boring. Conversely Facebook, WhatsApp, and Instagram provide ample opportunity for 'liking', commenting, conversing and engaging in other forms of interaction (such as posting a link or photograph on a friend's Facebook wall); they are consequently ingrained in daily communications. But more deeply, the interactive nature of social media is important because it provides a platform on which social scripts are not only acted out, but also actively negotiated. So while normativity does structure much of Hospiceños' daily lives, this is not a unidirectional process. Like all forms of hegemony,[6] normativity is negotiated by individuals within a larger structure. The social scripts certainly exist, and they do provide an outline for social life in Alto Hospicio, but many Hospiceños value their ability to improvise as well.

It is precisely because of the centrality of community that social media is important to Hospiceños and takes the specific forms that it does. Social media, rather than alienating individuals from their neighbours, families, or friends, creates new inroads to interaction in Alto Hospicio, at times even fostering the creation of new social relationships. There is no reason to believe these relationships are any less sincere or any more mediated than relationships that begin or develop any other way. Hospiceños use social media to seek out people with mutual interests, similar backgrounds and human networks in common; in so doing they simply supplement their social lives, rather than replace them or make them less authentic.

Performing the ordinary in an extraordinary place

These social networks are important to the community because of the unique set of existing circumstances and neoliberal ideologies that structure the space of Alto Hospicio. The absence of both state intervention and large private businesses often leaves the residents to their own devices. Within this context social networks and community become important resources, and thus identifications with sameness rather than difference are important to highlight. Discourses of normativity may repress, erase or obscure some forms of identification, but they serve to provide community cohesion, often seen as necessary for individuals who feel marginalised within broader structures. While some Hospiceños say that the range of expression in Alto Hospicio makes life boring, none outwardly convey that they feel personally repressed or unable to express their individuality. Instead the bounding of expression happens at an unconscious level in which the range of 'natural' options is circumscribed through social scripts. Individuals do not therefore experience a loss of options; rather they simply do not consider certain options in the first place.

Normativity is closely connected to notions of citizenship, and particularly strands of citizenship that highlight belonging. By remaining within the bounds of expected and naturalised ways of performing, interacting and expressing the self, Hospiceños communicate that they are 'good citizens'. They abide by the prevailing social scripts rather than challenging them, and overall contribute to a cohesive community. But this normativity is also closely connected to the ways in which Hospiceños conceive of citizenship in relation to the nation-state. Maintaining local normativity allows Hospiceños to conceive of their marginality in contrast to the imagined excesses and cosmopolitanism of sites more physically and figuratively central to the nation. By maintaining unassuming aesthetics, close community ties, traditional family forms and a focus on the local, Hospiceños represent themselves as the real Chilean citizens – marginalised by government and business interests and peripheral to political participation, legal status and rights, but nonetheless those who truly belong.

In identifying as marginalised citizens, individuals highlight their modes of self-understanding that correspond to Hospiceño normativity. However, when certain aspects of the self are highlighted, others are erased, obscured or left unmentioned. Work and family are both usually highlighted, and often used to place the self within broader social worlds. While men often take pride in providing for their families, adult

women take pride in caring for them. Non-heteronormative relationships are downplayed at times in favour of identification with one's natal family. Other connections within the community are also highlighted, whether through affiliations such as neighbourhood, childhood friendship, extended family or through more formal organisations, including community groups or municipal government. While highlighting local community is almost always an important way of performing citizenship associated with belonging, Hospiceños' attitudes toward nationalism are more complex. In the context of P/politics, regionalism and localism are highlighted over the national. Yet when associated with cultural forms such as food, sport or heritage, they identify closely and enthusiastically with being Chilean.

With such identifications Hospiceños attempt to reverse understandings of centre and periphery, representing themselves as the true Chileans; conversely those in the cosmopolitan centres of the nation are positioned as inauthentic. This conception of citizenship is closely associated with social and economic class – areas almost always highlighted by Hospiceños in claiming solidarity with working-class and non-cosmopolitan lifestyles. At times this even leads to cross-border identifications in which perceptions of common class and proletarian ideals supersede national identification. Similarly differences in race and, particularly, indigeneity are often erased in order to highlight a broader sense of marginality in which most Hospiceños can claim a part, rather than compartmentalising or hierarchising forms of disadvantage.

Overall these forms of highlighting and erasure create a strong sense of solidarity among most Hospiceños, frequently directed against such structures as the state, neoliberal capitalism or notions of cosmopolitan Otherness. However, these tactics also tend to erase forms of difference that otherwise could be important to peoples' self-understanding: for example identification as an indigenous person, sexual or gender nonnormativity or life aspirations that include goals associated with cosmopolitanism or other 'alternative' lifestyles. These erasures are not only reflected in individuals' posts on social media; they are also actively maintained through sanctioning certain kinds of posting through negative feedback. Thus the discursive structures of social media not only express forms of normativity in Alto Hospicio; they are key to mobilising and maintaining them.

In essence, social media is what users make it. In Alto Hospicio, where normativity and solidarity are important social values, social media is oriented towards those aims. New media circulate old stories,

and are both the products and producers of the social scripts to which its users are subject. Hospiceños reproduce their normativities through social media even without realising it. They highlight their marginalised citizenship and erase forms of distinction, creating their own particular community identification in the process.

Appendix 1 – Social Media Questionnaire

In June, July and August 2014, together with field work assistant Jorge Castro Gárate of the department of Social Work at Universidad Arturo Pratt in Iquique, I surveyed 100 Hospiceños about their use of social media. The survey took place in two parts. Part One took about one hour and the second part only 10 minutes.

The first part of the survey began with questions regarding basic demographics: gender, age, domestic situation, occupation, ethnic or racial identification and longevity in Alto Hospicio. It then asked about family attributes and indicators of wealth. The majority of the survey was made up of questions regarding use of social media: which media the respondent used, how long had accounts been held, with what frequency were these social media used, what sort of devices were used to access the media, with whom did the respondent communicate using the media, how many 'friends' did the respondent have and where were these other people located.

The second part of the survey asked questions related to communication with family members on social media, differences between social media friends known face-to-face and those known only online, fake profiles, use of photographs online and the relationship between social media usage and business or commerce. This survey also asked for assessments of happiness, popularity, social obligations and interpersonal tensions as a result of social media usage.

These surveys were both quantitative and qualitative in nature, and were replicated in all nine field sites of the Global Social Media Impact Study. Quantitative cross-field site analyses are available in Chapter 4 of the edited volume *How the World Changed Social Media*, which explores various themes of the study as a whole.

Notes

Chapter 1

1   Bosniak, L. S. 2001. 'Denationalizing Citizenship.' In Aleinikoff, T. A. and D. Klusmeyer, eds. *Citizenship: Comparison and Perspectives*. Carnegie Endowment For International Peace. Washington DC. See also Bloemraad, I., Korteweg, A. and Yurdakul, G. 2008. 'Citizenship and Immigration: Multiculturalism, Assimilation, and Challenges to the Nation-State.' *Annual Review of Sociology* 34: 153–79, 154.
2   Anderson, B. 1983. *Imagined Communities*. London: Verso.
3   Lukose, R. 2009. *Liberalization's Children: Gender, Youth, and Consumer Citizenship in Globalizing India*. Durham, NC: Duke University Press. 9.
4   Habermas, J. 1962. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. Cambridge: Polity Press. 105.
5   See Castles, S. 2002. 'Migration and community formation under conditions of globalization.' *International Migration Review* 36(4): 1143–68; Castles, S. and Davidson, A. 2000. *Citizenship and Migration: Globalization and the Politics of Belonging*. New York: Routledge; Vertovec, S. 2004. 'Migrant transnationalism and modes of transformation.' *International Migration Review* 38(3): 970–1001.
6   See Pêcheux, M. 1982. *Language, Semantics, and Ideology*. New York: St. Martin's Press. 157; Muñoz, J. 1999. *Disidentifications: Queers of Color and the Performance of Politics*. Minneapolis: University of Minnesota Press. 157–60.
7   Alto Hospicio sits in Chile's Region I of Tarapacá. These administrative divisions, created in 1974, are numbered from I–XIV, from North to South along the length of the country. The Santiago metropolitan region is excluded from this numbering system. Region XV of Arica and Parinacota, to the north of Region I, was created in 2007, splitting the former Region I in two. The Great North of Chile is one of five natural regions of Chile, created in 1950 by the Corporación de Fomento de la Producción de Chile, a governmental organisation that promotes economic growth. This region spans Chile's border with Peru in the North to the city of Antofagasta, encompassing the Atacama Desert. When referring to regionalism in this book I mean the area encompassed by the Great North, and use this distinction to indicate the similarity of lifestyles, driven by the common natural resources and industries in this natural region.
8   'Copper solution: The mining industry has enriched Chile. But its future is precarious.' *The Economist*, 27 April 2013. Available online at http://www.economist.com/news/business/21576714-mining-industry-has-enriched-chile-its-future-precarious-copper-solution.
9   'Indice de Calidad de Vida Urbana.' 2014. Núcleo de Estudios Metropolitanos, Instituto de Estudios Urbanos y Territoriales Santiago: Pontificia Universidad Católica de Chile y la Cámara Chilena de la Construcción. Available online at http://www.estudiosurbanos.uc.cl/component/zoo/item/indice-de-calidad-de-vida-urbana-icvu.
10 Frazier, L. J. 2007. *Salt in the Sand: Memory, Violence, and the Nation-State in Chile, 1890 to the Present*. Durham, NC: Duke University Press. 34.
11 'Copper solution.' 2013. *The Economist*.
12 Frazier, 2007. *Salt in the Sand*. 34.

13 Figures for 2005–11, Library of Congress Country Studies, 'Chile: Mining'. Available at http://countrystudies.us/chile/71.htm.

14 Frazier, 2007. *Salt in the Sand*. 25.

15 Frazier, 2007. *Salt in the Sand*. 25.

16 Brown, K. W. 2012. *A History of Mining in Latin America: From the Colonial Era to the Present*. Albuquerque, NM: University of New Mexico Press.

17 Klein, N. 2007. *The Shock Doctrine*. New York: Picador. 93–4.

18 These policies correspond to measures called 'structural adjustment' in countries which pledge such reforms in exchanges for loans from the International Monetary Fund. However, in the Chilean example Pinochet enthusiastically adopted such measures absent of a loan from the IMF.

19 The system is based on a direct payment to the schools based on daily attendance. 'Public' schools are those owned by the municipality of the commune in which the school is located. 'Private' schools often receive government subsidies, and may be organized as either for profit or not for profit. In order to receive public funding, private schools must reserve 15% of seats in each class to students classified as "vulnerable" (based on family income and mother's level of education). Schools receive extra funding for each "vulnerable" student they enroll.

20 Collier, S. and Sater, W. F. 2002. *A History of Chile, 1808–2002*. Cambridge: Cambridge University Press. 366–75.

21 Purchasing power parity converts gross domestic product to international dollars (an international dollar has the same purchasing power over GDP as the US dollar has in the United States). For comparison, PPP during the same time frame was $53,042 in the United States, $38,259 in the United Kingdom, $15,037 in Brazil, $11,774 in Peru and $6,131 in Bolivia. See 'GDP per capita, PPP (current international $)', World Bank, International Comparison Program database, World Development Indicators (2011). Available at http://data.world-bank.org/indicator/ NY.GDP.PCAP.PP.CD.

22 Harvey, D. 2005. *A Brief History of Neoliberalism*. New York: Oxford University Press. 1.

23 Frazier writes, 'The neoliberal model put in place by the military and deepened under civilian rule called for the redefinition of citizenship through consumption and the prioritization of market relations over former political cultures'. See Frazier, 2007. *Salt in the Sand*. 72.

24 Ong, A. 1991. 'The Gender and Labor Politics of Postmodernity.' *Annual Review of Anthropology* (1991): 279–309.

25 Larrain, T. A. 2009. 'Moving Home: The Everyday Making of the Chilean Middle Class.' Ph.D. thesis, Department of Sociology of the London School of Economics.

26 Lancaster, R. 2008. 'Preface.' Collins. J. L., Leonardo, M. Di and Williams, B., eds. *New Landscapes of Inequality*. Santa Fe: School for Advanced Research Press.

27 Jofré, D. 2007. 'Reconstructing the Politics of Indigenous Identity in Chile.' *Archaeologies* 3(1): 16–38.

28 In fact in May 2010 Chile joined the Organization for Economic Cooperation and Development, which consists of the world's 34 economically strongest countries.

29 About 30 per cent of young people aged between 18 and 24 matriculate in Chilean higher education, including traditional universities, non-traditional universities, technical schools and professional institutes. In 2014 the Region of Tarapacá had about 28 per cent of individuals aged 18–24 enrolled in tertiary education while the central provinces of Valparaíso and Santiago had 43 per cent and 35 per cent respectively. See Ministerio de Educación, Gobierno de Chile, *Bases de Datos de Matriculados*. Available online at http://www.mifuturo.cl/index.php/ bases-de-datos/matriculados.

30 Larraín, J. 2006. 'Changes in Chilean Identity: Thirty Years after the Military Coup.' *Nations and Nationalism* 12(2): 321–38.

31 The fact that the Candela Project reports that Chilean genetics are approximately 44 per cent Native American, 52 per cent European, and 4 per cent African, the 2011 Latinobarómetro survey found that about 66 per cent of Chileans considered themselves to be 'white', while only 25 per cent said '*mestizo*' and eight per cent self-identified as 'indigenous' (the 2012 census, which was later de-certified, reported that more than ten per cent of the population identified as indigenous). See 'Latinobarómetro', Corporación Latinobarómetro (2011). Available online at http://www.latinobarometro.org/lat.jsp; Gänger, S., 'Conquering the Past: Post-War Archaeology and Nationalism in the Borderlands of Chile and Peru, c. 1880–1920.' 2009. *Comparative Studies in Society and History* 51(4): 691–714.

32 Larraín. 'Changes in Chilean Identity.' 2006.

33 Organization for Economic Cooperation and Development. 2015. OECD Income Distribution and Poverty Database. Available at www.oecd.org/els/social/inequality.

34 Within the contemporary context of global neoliberal capitalism, many nation-states find it difficult to reach ideals of order, prosperity and peace within modernity. As these governments increasingly lose control to international organisations and banks over regulating their own money supplies, credit ratings and labour supplies, they often concentrate on regulating markets, attracting foreign investment, repaying foreign debt and maintaining stable environments for the operations of transnational capital. Yet as they focus on these seemingly foundational aspects of maintaining a stable economy, their ability to provide adequately for the needs of their citizens suffers. See Goldstein, D. 2004. *The Spectacular City: Violence and Performance in Urban Bolivia*. Durham, NC: Duke University Press. 21.

35 Frazier, 2007. *Salt in the Sand*. 57.

36 See Larsen, J. E. and Andersen, J. 1998. 'Gender, Poverty and Empowerment.' *Critical Social Policy* 18(2): 241–58; Brodwin, P. 2001. 'Marginality and Cultural Intimacy in a Trans-national Haitian Community.' Occasional Paper No. 91, October. Department of Anthropology, University of Wisconsin-Milwaukee, USA; Sommers, L. M., Mehretu, A. and Pigozzi, B. W. M. 1999. 'Towards Typologies of Socio-economic Marginality: North/South Comparisons.' *Marginality in Space – Past, Present and Future: Theoretical and Methodological Aspects of Cultural, Social and Economical Parameters of Marginal and Critical Regions*. Jussila, H., Majoral, R. and Mutambirwa, C. C., eds. London: Ashgate Publishing Ltd. 7–24.

37 Structural violence describes high rates of disease and death, unemployment, homelessness, paucity of educational opportunities, limited political power, hunger, thirst, and bodily pain, particularly as magnified by racism, sexism, and other forms of discrimination. See Kleinman, A. 2000. 'The Violences of Everyday Life: The Multiple Forms and Dynamics of Social Violence.' In Kleinman, A. and Das, V., eds. *Violence and Subjectivity*. Berkeley, CA: University of California Press. 226–41; Farmer, P. 1997. *Infections and Inequalities: The Modern Plagues*. Berkeley, CA: University of California Press. 263.

38 Darden, J. T. 1989. 'Blacks and other Racial Minorities: The Significance of Colour in Inequality.' *Urban Geography* 10: 562–77; Davis, B. 2003. 'Marginality in a Pluralistic Society.' *Eye On Psi Chi* 2(1): 1–4; Gans, H. J. 1996. 'From Underclass to Under-caste: Some Observations about the Future of the Post-Industrial Economy and its Major Victims.' In *Urban Poverty and the Underclass: A Reader.* Mingione, E. M., ed. Oxford: Blackwell; Leimgruber, W. 2004. *Between Global and Local: Marginality and Marginal Regions in the Context of Globalization and Deregulation.* Burlington, VT: Ashgate Publishing Limited.

39 Goldstein, 2004. *The Spectacular City.* 12. This conflation of individuals and places within a framework of morality also corresponds to Modan's notion of 'moral geography'. See Modan, G. 2007. *Turf Wars: Discourse, Diversity, and the Politics of Place*. New York: Blackwell; Thomann, M. 2016. 'Zones of Difference, Boundaries of Access: Moral Geography and Community Mapping in Abidjan, Côte d'Ivoire.' *Journal of Homosexuality* 63(3): 426–36.

40 See Tsing, A. L. 1993. *In the Realm of the Diamond Queen: Marginality in an Out-of-the-Way Place*. Princeton, NJ: Princeton University Press.

41 See Gutkind, P. C. W. 1974. *Urban Anthropology: Perspectives on 'Third World' Urbanization and Urbanism*. Assen, The Netherlands: Van Gorcum; Hardoy, J. 1972. *El Proceso de Urbanización en America Latina*. La Habana, Cuba: Oficina Regional de Cultural para America Latina y el Caribe; Roberts, B. R. 1978. *Cities of Peasants: the Political Economy of Urbanization in the Third World*. London: Edward Arnold.

42 Albó, X., Greaves, T. and Sandoval, G. Z. 1981. *Chukiyawu: La Cara Aymara de La Paz,* Vol. 4 (Cuadernos de investigacion No. 29). La Paz: CIPCA; Lomnitz, L. A. 1977. *Networks and Marginality: Life in a Mexican Shantytown*, New York: Academic Press; Peattie, L. R. 1974. 'The Concept of "Marginality" as applied to Squatter Settlements.' Cornelius, W. A. and Trueblood, F. M., eds. *Latin American Urban Research* 4: Anthropological Perspectives on Latin American Urbanization. Beverly Hills: Sage. 101–9; Smith, G. 1989. *Livelihood and Resistance: Peasants and the Politics of Land in Peru*. Berkeley: University of California Press; Ibañez, C. G. V. 1983. *Rituals of Marginality: Politics, Process, and Culture Change in Urban Central Mexico 1969–1974*. Berkeley, CA: University of California Press.

43 Auyero, J. 1999. 'The Hyper-Shantytown: Ethnographic Portraits of Neo-liberal Violence(s).' *Ethnography* 1(1): 93–116.

44 I use the terms 'identify' and 'identification' in contrast to the more common term, 'identity', as a processual, active term derived from a verb. While Goffman popularised the term 'identity', Brubaker and Cooper argue this word is over-endowed with meaning, and extrapolating the different senses of the word allows for more useful analysis. They suggest, 'Identification lacks the reifying connotations of identity. It invites us to specify the agents that do the identifying. And it does not presuppose that such identifying (even by powerful agents, such as the state) will necessarily result in the internal sameness, the distinctiveness, the bounded groupness that political entrepreneurs may seek to achieve'. See Brubaker, R. and Cooper, F. 2000. 'Beyond "Identity".' *Theory and Society* 29:1–47.

45 Brubaker and Cooper, 2000. "Beyond "Identity".'

46 Brubaker and Cooper suggest that the term 'self-understanding' designates a 'situated subjectivity', or one's sense of who one is, of one's social location and how one is prepared to act. Self-understanding suggests ways in which individual and collective action can be governed by particularistic understandings of self and social location rather than by putatively universal, structurally determined interests, similar to what Pierre Bourdieu has called *sens pratique*, 'the practical sense—at once cognitive and emotional—that persons have of themselves and their social world'. See Brubaker and Cooper, 2000. "Beyond Identity." 17; Bourdieu, P. 1990. *The Logic of Practice*. Cambridge: Polity Press.

47 Bucholtz, M. and Hall, K. 2004. 'Theorizing Identity in Language and Sexuality Research.' *Language in Society* 33(4): 469–515. 493.

48 Bourdieu, P. 1984. *Distinction: A Social Critique of the Judgement of Taste*. New York: Routledge.

49 Larraín. 2006. *Changes in Chilean Identity*.

50 The 2012 national census suggests around 9,539 Mapuche live in the region of Tarapacá, but no precise results are recorded specifically for Alto Hospicio.

51 This contrasts starkly with the subjectivities of Mapuche in southern Chile, where they are racialised and often confront the national government. See Marino, M. E., Pilleux, M., Quilaqueo, D. and Martín, B. 2009. 'Discursive Racism in Chile: The Mapuche Case.' Van Dijk, T. A., ed. *Racism and Discourse in Latin America*. New York: Rowman and Littlefield. 95–130; Crow, J. 2010. 'Negotiating Inclusion in the Nation: Mapuche Intellectuals and the Chilean State.' *Latin American and Caribbean Ethnic Studies* 5(2): 131–52.

52 The United States's CIA Factbook ranks Bolivia as one of the poorest and least developed countries in the hemisphere. Bolivia's terrain, especially in the Altiplano, makes travel difficult, and after losing its coastal region to a Chilean military pursuit in 1879 it is now begrudgingly land-locked. This affects the ability of Bolivian industries to export, subjects imports to the taxes and regulations of other countries and reportedly requires Bolivia to pay Chile or Brazil for access to fibre optic cables, driving internet prices up and speed down. The 2001 National Census placed poverty rates at 59 per cent and extreme poverty at 24.4 per cent. As the 2011 UNICEF report on poverty in Bolivia suggests, 'With almost no productive investment, diminishing internal demand, lack of confidence, uncertainty, increasing lack of prestige of political parties and lack of credibility of the political system, conditions do not exist for economic reactivation in the short term.'

53 Vergara, J. I. and Gundermann, H. 2012. 'Conformación y Dinámica Interna del Campo Identitario Regional en Tarapacá y Los Lagos, Chile.' *Chungara, Revista de Antropología Chilena* 44(1): 115–34. Available at http://dx.doi.org/10.4067/ S071773562012000100009

54 Bosniak, 2001. 'Denationalizing Citizenship.'

55 Carruthers, D. and Rodriguez, P. 2009. 'Mapuche Protest, Environmental Conflict and Social Movement Linkage in Chile.' *Third World Quarterly* 30(4): 743–60; Richards, P. 2005. 'The Politics of Gender, Human Rights, and Being Indigenous in Chile.' *Gender & Society* 19(2): 199–220; Richards, P. 2010. 'Of Indians and Terrorists: How the State and Local Elites Construct the Mapuche in Neoliberal Multicultural Chile.' *Journal of Latin American Studies* 42: 59–90.

56 Some Chileans suggest that the word *flaite* comes from Michael Jordan's line of Nike 'Air Flight' shoes, which when pirated carried the mark, 'Flight Air'. However, the more widely cited origin of the word suggests that *flaite* comes from 'flyer', as in someone who is high on drugs.

57 According to the 2011 Casen survey, in the region of Tarapacá, family ownership of household goods were as follows: vehicle 32 per cent (28.7 per cent in Chile as a whole); washing machine 60.9 per cent (70.8 per cent), refrigerator 67.1 per cent (79.8 per cent), water

heater 34.5 per cent (59.8 per cent), mobile phone 93.3 per cent (94 per cent) and cable television connection 39.6 per cent (41 per cent), computer 42.9 per cent (44.5 per cent), internet access 34.6 per cent (33.4 per cent). See 'Encuesta de caracterizacion socioeconomica nacional.' 2011. Santiago: Casen. Available online at http://observatorio.ministeriodesarrollosocial.gob.cl/ casen_obj.php

58 Bourdieu, P. 1984. *Distinction*. See also Barr-Melej, P. 1998. 'Cowboys and Constructions: Nationalist Representations of Pastoral Life in Post-Portalian Chile.' *Journal of Latin American Studies* 30(1): 35–61; Gramsci, A. 1971. *Selections from the Prison Notebooks of Antonio Gramsci*. Hoare, Q. and Nowell Smith, G., eds. New York: International Publishers.

59 Larrain, T. A. 2014. 'Housing Markets Performing Class: Middle Class Cultures and Market Professionals in Chile.' *The Sociological Review* 62(2): 400–20.

60 Bourdieu, P. 2005. *The Social Structures of the Economy*. Cambridge: Polity Press.

61 Savage, M., Bagnall, G. and Longhurst, B. 2001. 'Ordinary, Ambivalent and Defensive: Class Identities in the Northwest of England.' *Sociology* 35(4): 875–92.

62 Larraín, A. 2009. 'Moving Home.'

63 Aizura, A. Z. 2006. 'Of Borders and Homes: The Imaginary Community of (Trans)sexual Citizenship.' *Inter-Asia Cultural Studies* 7(2): 289–309; Smith, S. 1989. 'Society, Space and Citizenship Transactions.' *IBG* 14:144–56.

64 Horst, H. and Miller, D. 2012. *Digital Anthropology*. Oxford: Berg.

Chapter 2

1 Carvallo-Fernandini, R. and Lafuente, D. S. 2008. 'The History of CTC and Entel: Precursors of the Telecommunications in Chile.' Valparaíso: Universidad Católica de Valparaiso. Available online at http://www.ieeeghn.org/wiki/ images/0/08/Carvallo-Fernandini.pdf.

2 'Latin America Digital Future in Focus' report. 2013. Comscore. Available online at http:// www.comscore.com/ Insights/Blog/2013_Digital_Future_in_Focus_Series.

3 For more information see Appendix 1: Social Media Questionnaire.

4 Phatic communication refers to 'small talk' or 'grooming' which exists for the purposes of maintaining social relations without the subject matter or precise information exchanged being of particular importance. See Malinowski, B. 1923 'The Problem of Meaning in Primitive Languages.' Ogden, C. K and Richards, I. A., eds. *The Meaning of Meaning*. London: Routledge. 146–52; Miller, V. 2008. 'New Media, Networking and Phatic Culture.' *Convergence: The International Journal of Research into New Media Technologies* 14(4): 387–400.

5 See Velghe, F. 2015. 'Hallo hoe gaan dit, wat maak jy?: Phatic communication, the Mobile Phone and Coping Strategies in a South African Context.' *Multilingual Margins* 2(1): 10–30.

6 Miller, D., Costa, E., Haynes, N., McDonald, T., Nicolescu, R., Sinanan, J., Spyer. J., Venkatraman, S. and Wang, X. 2016. *How the World Changed Social Media*. London: University College London Press.

7 In my survey of 100 people between ages 16 and 55, only five have never had a Facebook account, and all 95 others continue to use Facebook regularly. Eighty-two of the 100 people check Facebook at least once a day and 45 say they are 'always connected'.

8 While in some locations around the world Facebook is losing hold with teens, as they migrate to platforms such as Whatsapp, Twitter or Snapchat, there is no such discernible movement in Alto Hospicio. Among Hospiceño teens over 70 per cent say that they are 'always connected' on Facebook. In fact, of the eight countries studied in the Global Social Media Impact Study, only the field site in England reported a trend away from Facebook. See Miller, D. 2016. *Social Media in an English Village*. London: UCL Press.

9 Habermas, 1962. *The Structural Transformation of the Public Sphere*. 105.

10 Though in many places sushi is associated with fine dining and international cuisine, the dish has become something of a staple in Chile in the last decade; it is fairly affordable with many delivery services offering 40 pieces for $10,000CLP ($16). Peruvian-Japanese food (call Nikkei) has a long history, given the large number of Japanese immigrants to Peru dating back to the late 1800s. As Peruvian immigrants arrived in Chile they brought with them a love for sushi; this subsequently became popular among almost all Chileans, spanning class differences, in the early 2000s. Of course, it should be noted that Chilean 'sushi' differs

significantly from authentic Japanese sushi, usually featuring salmon, shrimp or cooked chicken combined with rice, cream cheese, avocado and often covered in panko bread crumbs and fried. It is usually served with soy sauce and also sweetened 'teriyaki' sauce.

11 In a survey of 100 Hospiceños 77 per cent of respondents used the application (in mid-2014). Of those two-thirds regularly communicated in groups on WhatsApp.

12 See Rubin, G. 1984. 'Thinking Sex: Notes for a Radical Theory of the Politics of Sexuality.' In Vance, C., ed. *Pleasure and Danger: Exploring Female Sexuality*. Boston: Routledge. 267–391. Rubin explains how sexual activity that is paid or pornographic falls within the same 'bad, abnormal, unnatural' classification as other forms of non-heteronormative sexuality, such as homosexuality or group sex.

13 The percentage of Twitter users represents a big decline from Facebook and WhatsApp, and the service is used primarily by teens and adults in their early twenties. Only 30 per cent of survey respondents said they used the medium, including 33 per cent of teens, 23 per cent of 20-somethings and 21 per cent of 30-somethings. Of those 40 and above, only eight per cent of survey respondents have an account. Even among those that do have accounts, only about half report tweeting or re-tweeting at least once a month.

14 Overall only 22 per cent of those surveyed said they use the application. Over 35 per cent of teens, 26 per cent of 20-somethings and 21 per cent of 30-somethings used Instagram; no one over 40 reported having an account.

15 This notion of social media aligns with Madianou and Miller's concept of 'polymedia'. See Madianou, M. and Miller, D. 2012. 'Polymedia: Towards a New Theory of Digital Media in Interpersonal Communication.' *International Journal of Cultural Studies* 16(2): 169–87.

16 In addition to these six highly used social media sites, several other platforms have a small following in Alto Hospicio. A few individuals use Viber and Line much like WhatsApp, sending pictures, videos and messages to other users, but with the added benefit of a calling feature that uses data rather than phone minutes, much like Skype (though since this time, WhatsApp has introduced a similar feature). Skype itself resonates with Hospiceños and most have used it, but do so very rarely – perhaps because, as Alvaro commented, 'the call just drops'. Some Hospiceños used dating applications such as Grindr and Scruff, which focus on gay men, and Tinder, which is aimed primarily at heterosexual dating, but allow any user to limit their matches to men or women. However, for reasons I discuss in Chapter 4, Facebook remains a much more important (if covert) platform for potential dates. Though YouTube is the most used platform for music-related social media activity, one Hospiceño man mentioned using Soundcloud, an application that allows users to record, upload, and share 'sounds' – usually some form of music. One survey respondent also mentioned Pinterest, a platform for searching and 'collecting' images on 'pin boards' for viewing later. This woman in her early fifties created a pin board of home craft ideas she would like to try, including crochet patterns, home-sewn throw pillows and ideas for wall art. Yet Pinterest is geared towards aesthetic aspirations of the type that generally conflict with the modes of normativity that prevail in Alto Hospicio. Thus it is not surprising that its use is quite limited.

17 While 66 per cent of all respondents say they watch at least one YouTube video a month, with the average being around 60 videos per month, only 17 per cent of survey respondents actually had a YouTube account. Only 11 per cent of those surveyed had left a comment on YouTube in the last month (the average being about one per week), and 12 per cent said they had posted a video to YouTube in the last month.

18 Overall, only six per cent of people surveyed use the platform. However, almost 20 per cent of teens have accounts and many 20-somethings said that they had accounts previously, but had recently closed them.

19 See Kristeva, J. 1980. *Desire in Language: A Semiotic Approach to Literature and Art*. New York: Columbia University Press; Fairclough, N. 2003. *Analysing Discourse: Textual Analysis for Social Research*. New York: Routledge.

20 See Bauman, R. and Briggs, C. L. 1990. 'Poetics and Performance as Critical Perspectives on Language and Social Life.' *Annual Review of Anthropology* 19: 59–88.

21 Leppänen, S., Kytölä, S., Jousmäki, H., Peuronen, S. and Westinen, E. 2013. 'Entextualization and Resemiotization as Resources for (Dis)identification in Social Media.' *Tilburg Papers in Cultural Studies*, 57. Tilburg University.

22 Dawkins, R. 1976. *The Selfish Gene*. Oxford: Oxford University Press.

23 See Turkle, S. 2010. *Alone Together*. New York: Basic Books.

24 Butler, J. 1999. *Gender Trouble: Feminism and the Subversion of Identity.* New York: Routledge. 33.

25 Wittgenstein, L. 1953. *Philosophical Investigations*, 3rd ed. Anscombe, G. E. M., trans. London: Macmillan.

26 These acts of identification do not simply express something that already exists, but constitute the relationships and categories as they are expressed. Because identification takes place in the context of social scripts, the repetition of culturally recognised symbols congeals over time to produce an appearance of naturalness. See Butler, 1999. *Gender Trouble*. 44.

27 Bourdieu, P. 1977. *Outline of a Theory of Practice*. Nice, R., trans. Cambridge: Cambridge University Press. 29.

28 Bourdieu discerns a difference between *knowing that* and *knowing how*. For example, a Hospiceño may not explicitly know that they should not wear expensive clothing; they just know how to dress themselves the way they always have – in used clothing from the market. They may not know that telling their friends about their exclusively Spanish and German ancestry is 'wrong'; they simply cultivate a sense of shared culture through discourses of racial homogeneity and *mestizaje*. See Bourdieu, P. 1977. *Outline of a Theory of Practice*.

29 Butler, 1999. *Gender Trouble*.

30 Bourdieu calls these mental schemata *habitus*. Habitus in a way sets limits to normativity, through sensibilities, dispositions and taste, which are based on the embodiment of social structures. See Bourdieu, P. 2006 'Structures and the Habitus.' Moore, H. L. and Sanders, T., eds. *Anthropology in Theory: Issues in Epistemology.* Malden, MA: Blackwell. 56.

31 Turner uses the term 'social scripts', which I contrast here with Durkheim's notion of 'social facts'. He describes social facts similarly, as the values, cultural norms and social structures which transcend the individual and are capable of exercising a social constraint. Yet these are generally institutions such as kinship and marriage, currency, language, religion and political organisation that individuals take into account in their everyday interactions with others. Deviating from the norms of these institutions often makes the individual an outlier in the group. However, social scripts are more subtle, working through 'structures of feeling' (as described by Williams) rather than formal institutions, so that nowhere is it formally suggested that flashy jewellery, clothing, housing or even showing off an advanced education is against a social code, but as Vicky's gossip makes clear, these behaviours go against the accepted social script. See Turner, V. 1982. *From Ritual to Theatre: The Human Seriousness of Play.* New York: Performing Arts Journal Publications; Durkheim, E. 2012. 'The Rules of Sociological Method.' Longhofer, W. and Winchester, D., eds. *Social Theory Re-Wired: New Connections to Classical and Contemporary Perspectives.* New York: Routledge. 33–50; Williams, R. 1977. *Marxism and Literature*. New York: Oxford University Press.

32 Turner, V. 1982. *From Ritual to Theatre*. 122.

33 Goffman, E. 1959. *The Presentation of Self in Everyday Life*. Garden City: Doubleday.

34 Schechner suggests that even though there are differences between heightened performances and ordinary daily action, 'Any behaviour, event, action or thing can be studied "as" performance, can be analysed in terms of doing, behaving, and showing. To consider a thing as performance is simply to regard it from a performance perspective or in performance terms.' Similarly, Turner defines 'performance' to include 'social dramas' or any action that is formed, understood and reiterated through cultural scripting. See Schechner, R. 2002. *Performance Studies: An Introduction*. New York: Routledge; Turner, V. 1986. *The Anthropology of Performance*. New York: PAJ Publications.

35 Bucholtz, M. and Hall, K. 2004. 'Theorizing Identity in Language and Sexuality Research.' *Language in Society* 33: 469–515, 491.

36 Brubaker and Cooper, 2000. 'Beyond "Identity."'

Chapter 3

1 See Debord, G. 1994. *The Society of the Spectacle.* New York: Zone Books; Jameson, F. 1991. *Postmodernism, or, The Cultural Logic of Late Capitalism.* New York: Verso; Benjamin, W. 1936. *The Work of Art in the Age of Mechanical Reproduction*. New York: Random House; Adorno, T. and Horkheimer, M. 2002 [1944]. 'The Culture Industry: Enlightenment as Mass Deception.' *Dialectic of Enlightenment.* Redwood City, CA: Stanford University Press.

2   Eagleton, T. 1990. *The Ideology of the Aesthetic*. Oxford: Oxford University Press; Laclau, E. and Mouffe, C. 1985. *Hegemony and Socialist Strategy*. London: Verso; Ranciere, J. 2002. 'The Aesthetic Revolution and its Outcomes.' *The New Left Review* 14: 133–51.

3   I define 'selfies' more loosely here than the standard definition. 'Selfies' are often considered to be photographs taken by a person who also appears in the picture. They may be alone or in a group, and are identified by the appearance of an arm that juts out to the side of the frame as if it is holding the camera, or by the use of a mirror so that the camera (or camera-equipped phone) is visible in the reflection of the subject of the photo. In my usage I consider a selfie to be any casual photograph that depicts the person who posts it on their own social media account. It may be taken by them in the classical 'selfie' style, but may also be taken by a friend on the subject's camera explicitly for uploading on their own profile page. I privilege function – a casual photograph presenting the self/self-image – rather than the method of capture in this definition. By contrast I do not include photographs that are taken by the subject but centre on body parts other than the face (such as feet or fingernails). Again, while these may fall under a strict definition of 'selfie' in terms of the method of photo capture, I argue that their use and meaning are different from a picture of the self which displays the face.

4   Most of the images of people in this chapter come from individuals under 35, because they post more frequently and are more likely to agree to have their images appear. Unless otherwise noted, however, these trends are also true for people aged 35–55.

5   Miller, D. and Sinanan, J. 2016. *Visualising Facebook: A Comparative Perspective*. London: University College London Press. 14.

6   In my survey of 100 people, over three-quarters said that they posted 20 per cent or less of the photographs they take on social media.

7   Dutton, D. 2002. 'Aesthetic Universals.' Gaut, B. and Dominic McIver Lopes, D., eds. *The Routledge Companion to Aesthetics*. New York: Routledge.

8   See Miller, D. 2016. *Social Media in an English Village*.

9   My explanation of this aesthetic draws on Koskinen's suggestion that camera phone imagery constitutes an 'aesthetic of banality'. But I further this notion to point out that the particular moments that Hospiceños portray through photography depict the unassuming aesthetics that in their environment are also ubiquitous outside of the camera phone. Almost any Hospiceño could access the resources to produce this aesthetic, but it is not the same as the 'accessible aesthetic' of folklore artistic production discussed by Kirchenblatt Gimblett. It is neither the 'ordinary aesthetic' that hooks attributes to the working class's replacement of beauty with consumerism, nor its contrast, the aesthetic of 'beautiful objects' created by the 'poor' on 'different continents'. My argument is neither that the predominant aesthetic of Alto Hospicio is nonexistent, nor is it entirely utilitarian – privileging form above function and the 'choice of the necessary', as Bourdieu calls the working-class aesthetic. While many Hospiceños clearly could afford to redecorate their homes or buy expensive clothing from Zofri or Iquique department stores, their aesthetic choices lean toward an appearance of what Bourdieu calls 'necessity' in order to remain within the normativity associated with working class. It is an aesthetic that is presented as if it were not one, because aspiring to a particular aesthetic would be performing something; a certain kind of pretension. Yet the aesthetic relies on deliberate choices to not be pretentious or striking: instead to be modest, to be unassuming. See Koskinen, I. 2007. 'Managing Banality in Mobile Multimedia.' Peritierra. R., ed. *The Social Construction and Usage of Communications Technology: Asian and European Experiences*. Philadelphia: University of Philippines Press. 60–81; Gimblett, B. K. 1983. 'An Accessible Aesthetic: The Role of Folk Arts and the Folk Artist in the Curriculum.' *New York Folklore: The Journal of the New York Folklore Society* 9(3–4): 9–18; hooks, b. 1995. 'Beauty Laid Bare: Aesthetics in the Ordinary.' Walker, R., ed. *To Be Real*. New York: Anchor Books. 157–65; Bourdieu, P. 1984. *Distinction*. 41, 372, 376.

10   Ritchie, D. 2005. 'Frame-Shifting in Humor and Irony.' *Metaphor and Symbol* 20 (4): 275–94, 288.

11   Yus calls this form of joking 'arousal-safety' in which the joke intends to elicit either excitement or offence, then quickly reverts to the expected. Yus suggests that humour is partially based on the audience's pleasure in discovering congruencies. 'The tension involved in searching for a solution may be released when the "meaning" of a joke is discovered.' See Yus, F. 2003. 'Humor and the Search for Relevance.' *Journal of Pragmatics* 35: 1295–1331, 1314.

12   Taylor, E. 2014. 'The Curation of the Self in the Age of the Internet.' Paper presented at IUAES/JASCA Conference, Tokyo, Japan. Available at http://erinbtaylor.com/the-curation-of-the-self-in-the-age-of-the-internet.
13   Geertz, C. 1976. 'Art as a Cultural System.' *MLN* 91(6): 1473–99, 1478.

Chapter 4

1   Strathern, M. 1988. *The Gender of the Gift: Problems with Women and Problems with Society in Melanesia*. Berkeley, CA: University of California Press.
2   The 'Anuario de Estadísticas Criminales Fundación Paz Ciudadana' reported on 2007 crime statistics (the most recent year available) that there were about 1,000 thefts without force or violence (the type of pickpocketing everyone assumed to be so common), meaning that the reported rate of victims was only just over one per cent (assuming a population of 100,000). This rate was consistent with other sizeable cities in Chile. Yet anecdotally most individuals had stories of personally experiencing theft, and very few reported the crimes, feeling that doing so had no outcome. This suggested that the official rates did not correspond with the actual theft rates. Scarpa, M. S., ed. 2008. 'Anuario de Estadísticas Criminales Fundación Paz Ciudadana.' Santiago: Fundacion Paz Ciudadana. Available online at http://www.pazciudadana.cl/wp-content/uploads/ 2013/07/2009-01-20_Anuario-de-estad% C3%83%C2%ADsticas-criminales-2008.pdf.
3   In academic literature authenticity often refers to values of cultural continuity and a sense of pristine, genuine and traditional cultural practices. See Hervik, P. 1999. 'The Mysterious Maya of National Geographic.' *Journal of Latin American Anthropology* 4(1): 166–97; Handler, R. 1986. 'Authenticity.' *Anthropology Today* 2(1): 2–4. My usage follows more closely notions of authenticity which focus on what counts as 'genuine' for a given purpose. See Bucholtz and Hall, 2005. 'Identity and Interaction.'
4   Bucholtz and Hall, 2005. 'Identity and Interaction.' 601.
5   See Venkatraman, S. Forthcoming. *Social Media in South India*. London: UCL Press; McDonald, T. Forthcoming. *Social Media in Rural China*. London: UCL Press.
6   Papacharissi, Z. 2009. 'The Virtual Geographies of Social Networks: A Comparative Analysis of Facebook, Linkedln and AsmallWorld.' *New Media and Society* 11(1–2): 199–220, 215.
7   See boyd, d. 2011. 'Social Network Sites as Networked Publics: Affordances, Dynamics, and Implications.' Papacharissi, Z., ed. *A Networked Self. Identity, Community, and Culture on Social Network Sites*. 39–58. New York: Routledge; Lee, C. K. M. 2011. 'Micro-Blogging and Status Updates on Facebook: Texts and Practices.' Thurlow, C. and Mroczek, K., eds. *Digital Discourse: Language in the New Media*. Oxford: Oxford University Press. 111–128; Hillewaert, S. 2015. 'Writing with an Accent: Orthographic Practice, Emblems, and Traces on Facebook.' *Journal of Linguistic Anthropology* 25(2): 195–214.
8   Strathern takes a relationship-based rather than society-based approach to anthropology, calling relationships the 'crux of social action'. She sees the visibility of the relationship as fundamental to its importance. Similarly, Jacobson's approach to research on friendship emphasises the situational aspect. He is not only concerned with constant friendship and its characteristics, but 'with the labelling process itself, that is, with the situations in which a person gives and takes away the label of "friend".' See Strathern, 1988. *The Gender of the Gift*; Jacobson, D. 1975. 'Fair Weather Friend: Label and Context in Middle Class Friendships.' *Journal of Anthropological Research* 31(3): 225–34.
9   Sixty-three per cent were friends with their mother on Facebook and 48 per cent with their father. For those who are not friends with their parents on Facebook, it is often because their parents do not yet have accounts.
10 Some scholars have criticised the notions of DNA and blood as icons of authenticity in relatedness and ancestry. See Nelkin, D. and Lindee, S. 1996. *The DNA Mystique: The Gene as a Cultural Icon*. Ann Arbor: University of Michigan Press; Sturm, C. 2002. *Blood Politics: Race, Culture, and Identity in the Cherokee Nation of Oklahoma*. Berkeley, CA: University of California Press.
11 Schneider, D. M. 1964. *A Critique of the Study of Kinship*. Ann Arbor: University of Michigan Press.

12 *Flaite* can also be used to describe a woman, but in common discourse the stereotypical *flaite* is imaged to be a young man.

13 Similarly McDonald writes that children are seen as 'little treasures' in northern China. McDonald, Forthcoming. *Social Media in Rural China*.

14 This family affection that is shared on social media is not always the same in other places. Miller writes that in The Glades teens began ignoring Facebook in favour of Twitter, precisely because they felt they could not escape the watch of their parents who had more recently joined Facebook. See Miller, 2016. *Social Media in an English Village*.

15 For a counter example see Venkatraman, S. Forthcoming. *Social Media in South India*.

16 For a similar case see Sinanan, J. Forthcoming. *Social Media in Trinidad*. London: UCL Press.

17 Bruess, C. J. S. and Pearson, J. C. 1993. '"Sweet Pea" and "Pussy Cat": An Examination of Idiom Use and Marital Satisfaction Over the Life Cycle.' *Journal of Social and Personal Relationships* 10(4): 609–15.

18 Hillewaert suggests that when users are mindful of the public nature of social media posts they feel encouraged to display creativity within their linguistic practices, to which audiences often respond through a display of their own creativity. Hillewaert, S. 2015. 'Writing with an Accent.' 198.

19 Florini, S. 2013. 'Tweets, Tweeps, and Signifyin': Communication and Cultural Performance on "Black Twitter."' *Television New Media* 15(3): 223–37.

20 See Goodwin, M. H. 1990. *He-Said-She-Said: Talk as Social Organization Among Black Children*. Bloomington, IN: Indiana University Press. 185–9; Heath, S. B. 1983. *Ways with Words: Language, Life, and Work in Communities and Classrooms*. Cambridge: Cambridge University Press; Labov, W. 1972. *Language in the Inner City: Studies in the Black English Vernacular*. Philadelphia, PA: University of Pennsylvania Press. 306; Smitherman, G. 2000. '"If I'm Lyin, I'm Flyin": The Game of Insult in Black Language.' *Talkin that Talk: Language, Culture, and Education in African America*. New York, NY: Routledge. 223–30, 225; Morgan. M. 2002. 'Language, Power, and Discourse in African American Culture.' *Studies in the Social and Cultural Foundations of Language 20*. Cambridge: Cambridge University Press. 56–7.

21 Bauman suggests that such verbal play is 'marked as subject to evaluation for the way it is done, for the relative skill and effectiveness of the performer's display of competence'. See Bauman, R. 1875. *Verbal Art as Performance*. Rowley: Newbury House Publishers. 293.

22 Viewing social media "as" performance points us to the importance of the ways audiences come to bear on what Facebook posts become. While Goffman defines performance as activities that have influence on observers, Hymes more specifically insists that performance must be instantiated by members of a community that have access to folk knowledge. Thus community takes on central importance in thinking of social media posting as performance, and the public nature of that performance is essential to the expression of social ties and social life. See Goffman, 1959. *The Presentation of Self in Everyday Life*; Hymes, D. 1981. *In Vain I Tried to Tell You*. Philadelphia: University of Pennsylvania Press.

23 Labov, 1972. *Language in the Inner City*. 304–6.

Chapter 5

1 In my survey, which accounted for 341 household members, only 46 per cent of adult women were employed outside the home. Women's employment outside the home is very generational. For women in the survey, those working outside the home accounted for 86 per cent of women aged 20–30, 72 per cent aged 30–40, and only 12 per cent above age 40. In contrast only one man over the age of 25 did not work, and he was over 50 and retired.

2 In this analysis I rely in part on Connell's concept of gender regimes, or the institutionalised power relations between women and men where gender is a property of institutions and historical processes as well as individuals and their self-expression. This conception allows for viewing heteronormativity as a system in which gendered expectations place men and women into seemingly naturalised, distinct and complementary categories, based on heterosexual family structures. While a system of heteronormativity may recognise that not all people fall into this pattern, it takes binary genders linked to heterosexuality as a naturalised norm, thus bases other assumptions on this division. See Connell, R. W. 1987. *Gender*

and Power: Society, the Person and Sexual Politics. Stanford, CA: Sanford University Press; Lovaas, K. and Jenkins, M. M. 2006. 'Charting a Path through the "Desert of Nothing".' *Sexualities and Communication in Everyday Life: A Reader.* Thousand Oaks, CA: Sage.

3   'Copper Solution.' 2013. *The Economist.*

4   Jofré, 2007. 'Reconstructing the Politics of Indigenous Identity in Chile'; Babidge, S. 2013. '"Socios": The Contested Morality of "Partnerships" in Indigenous Community–Mining Company Relations, Northern Chile.' *The Journal of Latin American and Caribbean Anthropology* 18(2): 274–93.

5   Martin, E. 1997. 'Managing Americans: Policy and Changes in the Meanings of Work and the Self.' Shore, C. and Right, S., eds. *Anthropology of Policy: Critical Perspectives on Governance and Power.* London: Routledge. 183–200; Dunn, E. 2005. *Privatizing Poland: Baby Food, Big Business, and the Remaking of Labor.* Ithaca, NY: Cornell University Press; Yanagisako, S. 2002. *Producing Culture and Capital: Family Firms in Italy.* Princeton, NJ: Princeton University Press.

6   Ashforth, B. E. and Kreiner, G. E. 1999. '"How Can You Do It?": Dirty Work and the Challenge of Constructing a Positive Identity.' *The Academy of Management Review* 24(3): 413–34. 419; Lynch, G. 1987. *Roughnecks, Drillers, and Tool Pushers: Thirty-three Years in the Oil Fields.* Austin: University of Texas Press; Moodie, D. and Ndatshe, V. 1994. *Going for Gold: Men, Mines, and Migration.* Berkeley, CA: University of California Press.

7   Hospiceños, like most Chileans, see the importance of presenting themselves as enlightened citizens, and part of that is being '*bien educado*' [well educated]. Rather than applying specifically to formal education, being 'well educated' is better demonstrated through good manners, using the formal '*Usted*' [you] instead of the informal '*tú*' and in general using good grammar. One widely shared pop-culture article from *Opinza* lists such acts as avoiding gossip, not expressing irrelevant opinions and acting with deference when meeting new people as 'habits of very well educated people'. See Conlin, L. '10 hábitos de la gente muy bien educada.' *Opinza*, 2 January 2015. Available at http://opinza.com/2015/01/10-habitos-de-la-gente-muy-bien-educada/

8   Most of the people who work in high schools, or as managers for medium-sized or large businesses in Alto Hospicio, live in Iquique and commute to Alto Hospicio daily.

9   Chile's 2012 census did not specify marriage and divorce rates by city. For the region of Tarapacá as a whole, however, 45 per cent of people age 30–44 reported being single, 51 per cent were married, and about four per cent were divorced. For the same population 40.5 per cent reported that they lived with their (legal) spouse and 28.4 per cent lived with a partner of another gender to whom they were not legally married. For those aged 15–29 about nine per cent lived with a spouse, while 21.9 per cent lived with a partner to whom they were not married, suggesting that co-habitation was far more common than legal marriage as a form of making a family with a partner.

10   However, it is also essential to note that a number of men I spoke with complained that when they came home from work (either at the end of the day or the end of a mining shift) they were expected to contribute to labour in the home. These complaints suggested that they felt that their wage labour exempted them from participation in necessary labour to keep the home organised and clean, children cared for and the family fed.

11   Di Leonardo, M. 1987. 'The Female World of Cards and Holidays: Women, Families, and the Work of Kinship.' *Signs* 12(3): 440–53; James, N. 1989. 'Emotional Labour: Skill and Work in the Social Regulation of Feelings.' *The Sociological Review* 31(1): 15–42.

12   See Butler 1999. *Gender Trouble*; Kessler, S. J. and McKenna, W. 1978. *Gender: An Ethnomethodological Approach.* New York: Wiley; West, C. and Zimmerman, D. H. 1987. 'Doing Gender.' *Gender and Society* 1(2). 125–51.

13   Leidner, R. 1991. 'Serving Hamburgers and Selling Insurance: Gender, Work, and Identity in Interactive Service Jobs.' *Gender and Society* 5(2): 154–77, 155.

14   Milkman, R. 1987. *Gender at Work: The Dynamics of Job Segregation by Sex during World War II.* Urbana: University of Illinois Press. 50.

15   Beechey, V. 1988. 'Rethinking the Definition of Work: Gender and Work.' Jenson, J., Elisabeth Hagen, E. and Ceallaigh Reddy, C., eds. *Feminization of the Labor Force: Paradoxes and Promises.* New York: Oxford University Press; Fenstermaker Berk, S. 1985. *The Gender Factory: The Apportionment of Work in American Households.* New York: Plenum.

16   Leidner, 1991. 'Serving Hamburgers and Selling Insurance.' 155.

17 Gelber, S. M. 1997. 'Do-It-Yourself: Constructing, Repairing and Maintaining Domestic Masculinity.' *American Quarterly* 49 (1): 66–112.

18 Gagnon and Simon argue that men often use sexual conduct, or expressions and discourse relating to it, in order to appear 'masculine'. This claim was later supported by empirical work by Holland et al. See Gagnon, J. H. and Simon, W. 1973. *Sexual Conduct: The Social Sources of Human Sexuality*. Chicago: Aldine; Holland, J., Ramazanoglu, C., Sharpe, S. and Thomson, R. 1998. *The Male in the Head: Young People, Heterosexuality and Power*. London: Tufnell Press.

19 This stands in contrast to Halberstam's contention that masculinity is usually less performative then femininity, as well as de Beauvoir's famous contention that 'one is not born, but becomes a woman'. Within this context, as well as many others recorded in Latin America, masculinity is always already in jeopardy until proven, whereas femininity requires less explicit performance. See Halberstam, J. 1998. *Female Masculinity*. Durham, NC: Duke University Press; De Beauvoir, S. 2009. *The Second Sex*. New York: Vintage Books; Gutmann, M. 1997. 'Trafficking in Men: The Anthropology of Masculinity.' *Annual Review of Anthropology* 26: 385–409.

20 Wright, T. 2000. 'Gay Organizations, NGOs, and the Globalization of Sexual Identity: The Case of Bolivia.' *The Journal of Latin American Anthropology* 5(2): 89–111.

21 Haynes, N. 2016. 'Kiss with a Fist: The Chola's Humor and Humiliation in Bolivian Lucha Libre.' *Journal of Language and Sexuality* 5(2).

22 Pascoe, C. J. 2011. *Dude, You're a Fag: Masculinity and Sexuality in High School*. Berkeley, CA: University of California Press.

23 Richardson suggests that the dominant Western understanding of the relationship between gender and sexuality posits a natural order that relies on the gender dualism/binaries of male/female; heterosexual/homosexual; masculine/feminine. 'Within this epistemological frame sexuality is a property of gender, a gender that is pre-given and located in the gendered/sexed body.' Richardson, D. 2007. 'Patterned Fluidities: (Re)Imagining the Relationship between Gender and Sexuality.' *Sociology* 41:457–74, 461.

24 Both Seidman and Chauncy have argued in various contexts that gender often serves as a 'master code' of sexuality, wherein gender expression is understood as a chief sign of one's sexuality. In some cases then men could have sex with other men and still be thought of as 'normal' (heterosexual) by virtue of their masculinity, whereas gender non-conforming individuals were considered to be the only 'real' homosexuals. This corresponds in part to widely cited Latin American views of masculinity in which the active or penetrating partner is considered to retain masculinity while only the passive or penetrated partner is considered to be feminine, gay or a 'fag'. See Seidman, S. 2002. *Beyond the Closet. The Transformation of Gay and Lesbian Life*. New York: Routledge; Chauncey, G. 1994. *Gay New York*. New York: Basic Books; Wright, 2000. 'Gay Organizations, NGOs, and the Globalization of Sexual Identity'; Lancaster, R. N. 1997. '"That We Should All Turn Queer?": Homosexual Stigma in the Making of Manhood and the Breaking of a Revolution in Nicaragua.' Herdt. G. H, ed. *Same Sex, Different Cultures: Gays and Lesbians Across Cultures*, Boulder, CO: Westview Press. 97–115; Parker, R. 1999. *Beneath the Equator: Cultures of Desire, Male Homosexuality, and Emerging Gay Communities in Brazil*. New York: Routledge; Gutmann, M. 2003. *Changing Men and Masculinities in Latin America*. Durham, NC: Duke University Press.

25 While many individuals obviously deviated from certain aspects of normativity, for the most part they remained within what Rubin calls the 'charmed circle' of the sexual value system. See Rubin, 1984. 'Thinking Sex.'

26 Hennessy, R. 2006. 'The Value of a Second Skin.' Richardson, D., McLaughlin, J. and Casey, M. E., eds. *Intersections between Feminist and Queer Theory*. Basingstoke: Palgrave. 116–35; Kirsch, M. H. 2000. *Queer Theory and Social Change*. London: Routledge; McLaughlin, J., Casey, M. E. and Richardson, D. 2006. 'At the Intersections of Feminist and Queer Debates.' Richardson, D., McLaughlin, J. and Casey, M. E., eds. *Intersections between Feminist and Queer Theory*. Basingstoke: Palgrave.

27 Richardson, 2007. 'Patterned Fluidities.' 470.

28 Leidner, 1991. 'Serving Hamburgers and Selling Insurance,' 175.

29 Marshall, T. H. 2009 [1950]. 'Citizenship and Social Class.' Manza, J. and Sauder, M., eds. *Inequality and Society*. New York: W. W. Norton and Co. 148–54.

30 Mort, F. 1995. 'Archaeologies of City Life: Commercial Culture, Masculinity, and Spatial Relations in 1980s London.' *Environment and Planning D: Society and Space* 13: 573–90; Zukin, S. 2004. *Point of Purchase: How Shopping Changed American Culture*. New York: Routledge.

31 Leitner, H. and Ehrkamp, P. 2003. 'Beyond National Citizenship: Turkish Immigrants and the (Re)construction of Citizenship in Germany.' *Urban Geography* 24(2): 127–46.

32 Lukacs, G. 1968. *History and Class Consciousness: Studies in Marxist Dialectics*. Livingstone, R., ed. Cambridge, MA: The MIT Press.

33 Ashforth and Kreiner, 1999. 'How Can You Do It?'.

Chapter 6

1   For comparison, the 2010 earthquake in Haiti registered 7.0 on the Richter scale. However, the Chilean earthquake caused far less damage and death due to the better infrastructure.

2   Gregory, S. 1998. *Black Corona: Race and the Politics of Place in an Urban Community*. Princeton, NJ: Princeton University Press.

3   Valentine, drawing on Anderson, suggests that 'whether geographically bounded or not, community is not a natural fact but an achievement, a process that does not happen without the exercise of agency and power'. See Valentine, D. 2007. *Imagining Transgender: An Ethnography of a Category*. Durham, NC: Duke University Press. 73; Anderson, 1983. *Imagined Communities*.

4   Frazier, 2007. *Salt in the Sand*. 3.

5   Druttman, B. and McHugh, E. 'Candidates Look to Chile's Outlying Regions to Boost Votes.' *The Santiago Times*, 2 December 2013. Available at http://santiagotimes.cl/candidates-look-chiles-outlying-regions-boost-votes/

6   The Socialist Party of Chile is centre-left; it was Salvador Allende's party and is now part of the *Nueva Mayoria*. The Independent Democratic Union is centre-right, founded in 1983 by Pinochet collaborators. It was the party with the most congressional representation between 2010–14. Both parties today are considered quite mainstream.

7   Given the history of labour movements in the region it was not surprising to find that 'Politics' (as defined by Hospiceños) were polarised, not between 'conservative' and 'liberal', but between what could be described as left-wing socialist politics and apathy about national politics in general. Thus I addressed apathy in the previous section and I discuss young left-wing activists here: discussions of conservative politics remain absent to reflect the fact that among Hospiceños active involvement in conservative political organizations was minimal if it existed at all.

8   See the video at https://www.youtube.com/watch?feature=player_embedded&v=sQyHcrq1F2U

9   See Han, C. 2012. *Life in Debt: Times of Care and Violence in Neoliberal Chile*. Berkeley, CA: University of California Press.

10 Because of the difference I perceived in local definitions of politics with my own broader definition, in this chapter I use Politics (with a capital P) to indicate the sorts of national issues and institutions that most Hospiceños considered political and politics (with a small p) to indicate a broader notion of politics as local, regional, national or international discussions and wielding of power that have to do with governance, law and negotiations between individual freedoms and government regulations.

11 Mendez, M. L. 2008. "Middle Class Identities in a Neoliberal Age: Tensions between Contested Authenticities.' *Sociological Review*, 56(2): 220–37.

12 Regional GDP for Tarapacá is less than $9 billion, while that of Santiago is over $173 billion. See 'GDP per capita, PPP (current international $)', World Bank (2011).

13 Yeh, E. T. 2007. 'Tibetan Indigeneity: Translations, Resemblances, and Uptake.' De la Cadena, M. and Starn, O., eds. *Indigenous Experience Today*. New York: Berg. 69–97; Tsing, A. L. 2003. 'Agrarian Allegory and Global Futures.' Greenough, P. and Tsing, A., eds. *Nature in the Global South: Environmental Projects in South and Southeast Asia*. Durham, NC: Duke University Press. 124–69.

14 Frazier, 2007. *Salt in the Sand*.

15 Whether the specific migrants work in the industry or not, the economic opportunities of the region are based on the prosperity of mining.

16 'America', in South America, refers to the whole of the American continent (usually North and South America are conceptualised as a single land mass); it is often a political statement, reclaiming the word from a specifically North American usage.

17 "Chile–Peru Border defined by UN Court at The Hague.' *BBC News* (28 January 2014). Accessed 29 January 2014, http://www.bbc.com/news/world-europe-25911867.

18 These tactics of highlighting similarity and difference correspond to Bucholtz and Hall's notions of 'adequation and distinction'. As they explain, affirming affiliation often works through expressing sameness or difference, both of which are effective tactics of identification. See Bucholtz and Hall, 2005. 'Identity and Interaction.' 599.

19 Yeh, 2007. 'Tibetan Indigeneity.' 76.

20 Anderson, 1983. *Imagined Communities*.

Chapter 7

1 Also see Ong's discussion of 'neoliberalism as exception' and 'exceptions to neoliberalism'. Ong, A. 2006. *Neoliberalism as Exception: Mutations in Citizenship and Sovereignty*. Durham, NC: Duke University Press.

2 Redfield suggests that smaller 'folk' communities exhibit homogeneity, solidarity and fellowship, while urban areas exhibit a loss of these characteristics. See Redfield, R. 1955. *The Little Community and Peasant Society and Culture.* Chicago: University of Chilcago Press.

3 Sherzer, J. 2002. *Word Play and Verbal Art*. Austin: University of Texas Press. 51.

4 See Butler's discussion of performativity and identity. Butler, 1999. *Gender Trouble*. 146.

5 Conquergood, D. 1986. 'Between Experience and Meaning: Performance as a Paradigm for Meaningful Action.' *Renewal and Revision: The Future of Interpretation*. Colson, T., ed. Austin: Omega. 6–7.

6 Gramsci, 1971. *Selections from the Prison Notebooks*. 216.

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Index

Based on 15 months of ethnographic research in the city of Alto Hospicio in northern Chile, this book describes how the residents use social media, and the consequences of this use in their daily lives. Nell Haynes argues that social media is a place where Alto Hospicio's residents – or Hospiceños – express their feelings of marginalisation that result from living in a city far from the national capital, and with a notoriously low quality of life compared to other urban areas in Chile.

In actively distancing themselves from residents in cities such as Santiago, Hospiceños identify as marginalised citizens, and express a new kind of social norm. Yet Haynes finds that by contrasting their own lived experiences with those of people in metropolitan areas, Hospiceños are strengthening their own sense of community and the sense of normativity that shapes their daily lives. This exciting conclusion is illustrated by the range of social media posts about personal relationships, politics and national citizenship, particularly on Facebook.

NELL HAYNES is Postdoctoral Fellow at Pontificia Universidad Católica de Chile in Santiago. She received her PhD in Anthropology from the American University in 2013. Her research addresses themes of performance, authenticity, globalization, and gendered and ethnic identification in Bolivia and Chile.

Code of practice for learning analytics

A literature review of the ethical and legal issues

Niall Sclater

Table of Contents

1: Introduction

Consultation by Jisc with representatives from the UK higher and further education sectors has identified a requirement for a code of practice for learning analytics. The complex ethical and legal issues around the collection and processing of student data to enhance educational processes are seen by universities and colleges as barriers to the development and adoption of learning analytics (Sclater 2014a). Consequently a literature review was commissioned by Jisc to document the main challenges likely to be faced by institutions and to provide the background for a sector-wide code of practice. This review incorporates many relevant issues raised in the literature and the legislation though it is not intended to provide definitive legal advice for institutions. It draws from 86 publications, more than a third of them published within the last year, from a wide range of sources including:

» The literature around learning analytics which makes explicit reference to legal and ethical issues

» Articles and blogs around the ethical and legal issues of big data

» A few papers which concentrate specifically on privacy

» Relevant legislation, in particular, the European Data Protection Directive 1995 and the UK Data Protection Act 1998

» Related codes of practice from education and industry

Expressing issues as questions can be a useful way of making some of the complexities more concrete. 93 questions have been extracted from the literature and are incorporated in the relevant sections of the review. They arise mainly in the areas of awareness, consent, ownership, control, the obligation to act, interventions, triage and the impacts on student behaviour. These headings, highlighted in the word cloud below, give an instant flavour of the main ethical, procedural and legal concerns around the implementation of learning analytics being raised by researchers and practitioners.

In "22. Principles for a code of practice" sixteen codes of practice or lists of ethical principles from related fields have been summarised. A further word cloud created from the key principles points to some of the solutions others have come up with. Foremost among them are: transparency, clarity, respect, user control, consent, access and accountability.

This report presents a comprehensive review of the ethical and legal issues currently being reported on and likely to be encountered by institutions in their deployment of learning analytics. It is intended to form the groundwork for a consultation by Jisc with representatives from across further and higher education to develop a more

concise code of practice. This will provide clear guidance to institutions and reassurance to students and staff that developments in learning analytics are being undertaken legally and ethically, primarily for the benefit of learners.

2: Rationale for a code of practice

Current legal and ethical guidelines have not caught up with innovations in the identification of patterns and new knowledge emerging from the vast datasets being accumulated by institutions. "We've driven off the existing legal and ethical maps", according to King & Richards (2014). A code of ethics is essential as the law alone cannot deal with the many different scenarios that will arise. We are in a critical window: whatever gets established today will be "sticky" and will affect public notions of what is acceptable for many years to come. If we fail to assert values such as privacy, transparency and free choice, society will abandon these in favour of technical innovation and commercial pressures.

Institutional power is increasing at the expense of individual identity, which can increasingly be shaped by applying analytics to our interactions. We need therefore to establish principles and best practices to guide the various stakeholders and encourage the ethical use of data rather than forcing users to share their personal data with little in return (Richards & King 2014). The challenges created to privacy by big data arise from the sheer amount of data that is collected and the efficient ways in which it can be analysed, enabling far more to be learnt about people than was ever anticipated. Technology has to be accompanied by policy in order for privacy to be protected (President's Council of Advisors on Science and Technology - PCAST 2014).

In a review of learning analytics literature Ferguson (2012) points out that there is a pressing need for a detailed ethical framework which helps institutions make decisions regarding the ownership and stewardship of learners' data. This should describe the rights and responsibilities stakeholders have in relation to the data, how researchers can obtain informed consent to use it, and how students can opt out of data collection or have their records removed. Ferguson also suggests that researchers in the field could include sections on ethics within their publications.

Pardo and Siemens (2014) find that institutions already struggle to define privacy policies in areas other than learning analytics which present new issues for ethics committees. The prominence of the Course Signals initiative at Purdue University and other innovations in analytics means that institutions need to consider the ethical issues arising from the data they hold and the possible uses they could put it to for enhancing retention and academic success (Willis, Campbell & Pistilli 2013). Berg (2014) argues that without a code of ethics and agreed practices institutions may act in an ad-hoc way thus reducing consistency and fairness for students. However, he believes that as learning analytics is still developing there is time to develop the code. It is likely that senior management will have a different perspective to teachers but which of these should be able to decide what is done with the analytics? Berg suggests that a code of practice would be the arbitrator in this case.

Dealing with the ethical challenges relating to information technology is not simply a "good thing to do" but also helps organisations to develop an ethical environment where bad things are much less likely to occur. Negative publicity about the use of IT almost always results from failures to deal with ethical issues. Business-focussed staff may consider IT to be ethically neutral but they are not necessarily familiar with the many choices IT staff are required to make in the design and deployment of systems which have consequences for individuals.

This would seem to be particularly pertinent in learning analytics where the nature of the algorithms and how the results are presented and acted upon could have a significant impact on a student's academic success. It is certainly the case that when new and unfamiliar systems are introduced there may be pressures to cut corners and disregard ethical dilemmas which arise for which no advice has been provided. Users may also feel that if the

data is held remotely in the cloud, ethical issues are more distant and can safely be ignored (Duquenoy, Dando & Harris 2010).

Without addressing the ethical issues there may be a backlash from users who feel their privacy is endangered and therefore the development of learning analytics may be held up (Greller & Draschler 2012; Siemens 2012). Two recent examples are worth noting. Firstly, an open-source product called "inBloom" was developed with $100m funding from the Gates and Carnegie Foundations. The aim was to store data in a common format which gave schools control over the data they collected and how it was used and shared. However, communications were mishandled and parents not properly consulted or informed. Families along with privacy advocates forced the closure of the programme, claiming that the system would have contained highly sensitive data such as disability status, and that there was no ability to opt out. They were also concerned that data on their children could fall into the wrong hands (K.N.C. 2014).

The second example is the "mood experiment" carried out by Facebook which placed positive and negative items and images in the timelines of 700,000 users to find out if they could manipulate users' moods. The backlash from users and the media was huge and resulted in new guidelines to the company's researchers. Mike Shroepfer, the Chief Technology Officer, admitted that they should have done things differently: they should have considered non-experimental ways to carry out the research, involved a wider and more senior group of people on the review panel, and communicated better why and how they were doing it. Review processes at Facebook for studies involving deeply personal matter such as emotions will therefore be enhanced (Shroepfer 2014). It is likely that the actions taken to *manipulate* emotions rather than merely analyse them is what sparked such outrage among users.

A survey of 144 data scientists at an event in Boston in 2014 found that 42% of them agreed that an industry standard ethical framework for collecting and using data should be available (Bertolucci 2014). 43% said that ethics played "a big part" in their research. 47% of the data scientists in the survey thought the Facebook study was unethical and 40% said they did not know. While research in science and health is already subject to strict ethical procedures there are few such guidelines in the technology industry. Analytics regarded as "inappropriate, creepy, intrusive or rude" are likely to adversely affect trust in an organisation and restrict their ability to develop their data processing capabilities (Schwartz 2010).

There are certainly lessons here for researchers and practitioners of learning analytics who wish to avoid accusations of unnecessary "big brother" type surveillance. Transparency and a recognition of potential unease from learners and educators may be helpful in preventing a backlash (Siemens 2012). Ellis (2013) believes that clearly communicated intentions such as improving learning rather than policing poor teachers are necessary. Certainly it is in the interests of students, staff and institutions that the uses to which learning analytics will be put is explained as clearly as possible. Slade & Prinsloo (2013) consider the management of student perceptions of learning analytics to be critical to its successful adoption. They would like to see learners collaborate with institutions to provide data and access to it so that they can be the primary beneficiaries of learning analytics, as well as helping the institutions.

Other industries have realised the critical importance of maintaining confidence in the organisation and its processes. ESOMAR (2011) suggests that market research depends for its success on public confidence and that researchers should avoid practices that potentially undermine it. Finally, the Information Commissioner's Office

(ICO 2010) lists the benefits of following its code of practice for personal information online, all of which are of direct relevance for learning analytics:

» Greater trust and a better relationship with the people you collect information about

» Reduced reputational risk caused by the inappropriate or insecure processing of personal data

» Better take-up of online services, meaning economic savings and greater convenience for customers

» Minimised risk of breaches and consequent enforcement action by the Information Commissioner or other regulators

» Gaining a competitive advantage by reassuring the people you deal with that you take their privacy seriously

» Increasing people's confidence to provide more valuable information, because they are reassured that it will be used properly and kept securely, and

» Reduced risk of questions, complaints and disputes about your use of personal data

3: Ethical approaches

Pardo & Siemens (2014) define ethics in the digital context as "the systematization of correct and incorrect behaviour in virtual spaces according to all stakeholders". Surprisingly little of the literature around ethics for learning analytics however refers to the underlying philosophy and ethical theory. While useful in attempting to understand the issues, applied ethics is not a familiar area for most practitioners. Harris et al. (2008), in an attempt to help ICT staff assess ethical issues, suggest using four questions put by Mason et al. (1995), based on the two main ethical traditions of *teleology* and *deontology*:

» Who is the agent? (including their motives, interests and character)

» What action was taken or is being contemplated?

» What are the results or consequences of that action?

» Are those results fair or just?

One author who has examined the application of ethics to learning analytics is Willis (2014) who believes that learning analytics has a basis in *utilitarianism*, which argues that action should be based on what does the most good for the most people. As a learner, allowing your data to be combined with that of others, potentially to help them, would fit in with this stance. *Moral utopianism* similarly suggests that people act in a way that betters others. Applying this framework to learning analytics, the technologies would ensure meaningful interventions to help students learn and develop themselves. Data would be kept securely and predictions would be accurate.

In another paper, Willis, Campbell & Pistilli (2013) outline some ethical principles which can be applied to learning analytics, including:

» **Aristotle's *Golden Mean*: "The moral virtue is the appropriate location between two extremes"**. Analytics can be used to identify extremes of student behaviours e.g. under-confidence and over-confidence, and thus help move towards a more moderate position

» **Immanuel Kant's *Categorical Imperative*: "Act on the maxim that you wish to have become a universal law"**. Institutions have a duty to act if predictive algorithms are demonstrated to be effective in producing actionable insights

» **John Stuart Mill's *Principle of Utility*: "Seek the greatest happiness for the greatest number"**. Analytics can be used to improve the success of large numbers of students

Ethical decision making brings together people's world views (including their epistemology and values), their individual positions on methodology, the academic and political environment, and the assumptions of individual disciplines (AoIR 2012). However, ethical systems can be lofty and vague; they become more meaningful when given a set of principles (Willis, Campbell & Pistilli 2013). Many of the fundamental principles behind codes of ethics come from documents such as the UN Declaration of Human Rights and the Nuremberg Code. These include human dignity, autonomy, protection, safety, and the minimisation of harm (AoIR 2012). The avoidance of harm is manifested in the well-known, if slightly unconvincing, "Don't be evil" slogan at the start of Google's (2012) Code of Conduct. This principle is particularly relevant to learning analytics which has the potential to adversely affect students' academic success if used improperly.

Slade & Prinsloo (2013) point out that the origins of learning analytics in various research areas bring a number of different but overlapping ethical perspectives in relation to areas such as data ownership and privacy. They themselves take a *socio-critical* standpoint, discussing the role of power relations between students, their institutions and other stakeholders such as funding bodies. They position learning analytics as a "transparent moral practice", viewing students as participants in the process. They classify the ethical issues of learning analytics in three overlapping categories:

» The location and interpretation of data

» Informed consent, privacy and the de-identification of data, and

» The management, classification and storage of data

The imbalance of power between the institution, staff and students has important ethical implications for learning analytics. Other professions are aware of this inequality and how it can affect individuals: the larger the differential in power between the professional and the subject, the heavier is the responsibility of the professional (European Federation of Psychologists' Association, EFPA 2005). Relevant principles from the literature and many guidelines from related fields which might be appropriate for a code of practice for learning analytics are included in "*22 Principles for a code of practice*".

4. Legal context

Developments in the law are slow and cannot match the speed of innovation. Willis (2014) argues that this is a good thing as otherwise technological development would be impeded. Principled reflection however should attempt to match the speed of innovation. He calls for companies which are developing new learning analytics systems and institutions evaluating the products to put discussions on ethics at the forefront. Despite a lack of case law to provide the context for all aspects of learning analytics (Kay, Korn & Oppenheim 2012) there are many existing legal restrictions on the collection and processing of data in particular which need to be considered. Learning analytics is likely to be carried out alongside an institution's other data processing activities so many of the existing policies and processes for legal compliance and managing risk should already be in place (ICO 2014).

Rules about the collection and processing of personal information in different jurisdictions reflect varying legal, social and cultural values (Schwartz 2010). In Europe, the right to privacy is recognised in Article 8 of the European Convention for the Protection of Human Rights and Fundamental Freedoms. This is one of the principles behind the Data Protection Directive (European Commission 1995) (DPD), which is enacted in the UK through the Data Protection Act (UK Government 1998) (DPA). Together these form the key current legislation of relevance to the implementation of learning analytics. The DPD and the DPA provide the bare minimal requirements; guidance on how to implement the DPA in practice is provided in ICO (2010).

Other Acts which may need to be considered for the application of learning analytics in the UK are the:

» Equality Act 2010 and the Disability Discrimination Act 2004 (which still applies in Northern Ireland) - ensuring that analytics does not disadvantage any particular group e.g. tools and dashboards should be fully accessible to students with disabilities

» Freedom of Information Act 2000 (and equivalent Scottish legislation in 2002) - where the confidentiality of students should be preserved in any request for information

The DPD and the DPA specify the responsibilities of *data controllers* and *data processors*, and the rights of *data subjects*. In the case of learning analytics the data controller is likely to be the educational institution, a data processor may for example be an organisation which is hosting the virtual learning environment or learning analytics system, and students will be the primary data subjects. The DPA is built around eight key principles from the Directive. In summary, personal data must be:

» processed fairly and lawfully

» obtained only for specific lawful purposes

» adequate, relevant and not excessive for those purposes

» kept accurate and up to date

» kept for no longer than is necessary for those purposes

» processed in accordance with the data subject's rights

» kept safe from unauthorised or unlawful processing, accidental loss, destruction or damage to the data

» not transferred outside the European Economic Area unless that country has equivalent levels of protection for processing personal data

Consent is an important part of the Directive which has flowed into the DPA, and is highly relevant to the collection of data for learning analytics. In summary, personal data can only be processed if one or more of the following circumstances apply:

» the data subject has unambiguously given their consent

» processing is necessary for the performance of a contract (to which the data subject is party)

» processing is necessary for legal compliance

» processing is necessary to protect the vital interests of the data subject

» processing is necessary to protect the legitimate interests of the controller except where these are overridden by the interests or fundamental rights and freedoms of the data subject

The latter point regarding the protection of the data controller's *legitimate interests* may be taken by institutions as justification for not obtaining proper consent from students. However, it may be difficult to argue that the individual's privacy is less important than the institution's right to carry out learning analytics without consent. The processing must be *necessary* and not just of potential interest – there may be another way of achieving the legitimate interests of the controller which is less invasive of individual privacy (ICO 2014). Claiming legitimate interests is however potentially as valid as any of the other above grounds for processing an individual's data; institutions may consider that learning analytics are in the best interests of the individual and the wider student body. They should first carry out a "balancing test" which weighs up the legitimate interests of the controller against the rights and interests of the subject (European Commission 2014b).

There are also particular provisions regarding the processing of personal data revealing race or ethnicity, political opinions, religious or philosophical beliefs, trade-union membership and information on an individual's health or sex life. Students must give their consent for such "sensitive" data to be used.

Another relevant part of the legislation is that data controllers must on request provide data subjects with their personal data and details of the purposes of the processing for which the data are intended "without constraint at reasonable intervals and without excessive delay or expense". Data subjects must also be allowed to rectify any errors. The controller must be prepared to provide information regarding other recipients of the data and "knowledge of the logic involved in any automatic processing of data concerning him at least in the case of … automated decisions". This implies that institutions should prepare to be completely clear and transparent around the algorithms and metrics they are developing for learning analytics.

Data subjects have the right to object to the processing of data about them "on compelling legitimate grounds" – so enabling students to opt out of data collection may be necessary. Also, critically for learning analytics, the data subject has the right "not to be subject to a decision which … significantly affects him and which is based solely on automated processing of data intended to evaluate certain personal aspects relating to him, such as his performance at work, creditworthiness, reliability, conduct, etc.", including presumably his or her studies.

A further key aspect of the legislation is the prohibition of the transfer of personal data outside the European Union except where adequate safeguards (e.g. the US Safe Harbor agreement) have been put in place. This

potentially restricts the use by institutions of cloud-based learning analytics services hosted in the US or elsewhere.

In January 2012 the European Commission proposed a comprehensive reform of the Directive "to strengthen privacy rights and boost Europe's digital economy". The aim is to create a single law for the 27 member states of the EU, each of whom have enacted the DPD in different ways, boosting consumer confidence and saving an estimated €2.3 billion per year (European Commission 2012). The following principles, all of which are of relevance to learning analytics, are included in the proposal, which has progressed though EU bureaucracy and is likely to be made into law imminently (European Commission 2014a):

» **A right to be forgotten**: When individuals no longer want their data to be processed and there are no legitimate grounds for retaining it the data will be deleted. This is intended to empower people rather than to erase past events or restrict freedom of the press

» **Easier access to your own data**: A right to data portability will make it easier for users to transfer their personal data between service providers

» **Putting you in control**: When consent is required to process an individual's data, they must be asked to give it explicitly. It cannot be assumed. Saying nothing is not the same thing as saying yes. Businesses and organisations will also need to inform users without undue delay about data breaches that could adversely affect them

» **Data protection first, not an afterthought**: 'Privacy by design' and 'privacy by default' will also become essential principles in EU data protection rules – this means that data protection safeguards should be built into products and services from the earliest stage of development, and that privacy-friendly default settings should be the norm – for example on social networks

Rubinstein (2013), a commentator based in the US, claims that European law fails to acknowledge the "impending big data tsunami" which she believes will overwhelm the core principles of informed choice and data minimisation i.e. restricting the collection and holding of data to the minimum necessary in order to carry out the specified purpose. Organisations which use data mining may not be able to provide adequate notice to individuals as they cannot know in advance what they might discover. Since they lack the knowledge of possible correlations users cannot consent to the use of their data either. Moreover, the distinction between personal and non-personal data is not necessarily sustainable in the world of big data. The principle of data minimisation conflicts with the philosophy of big data which applies analytics to massive data sets, attempting to do so without any restrictions. New rights such as the right to be forgotten, she believes, may be impractical and conflict with rights of free expression.

The official US government approach also differs markedly from the EU philosophy. This is important because learning analytics products may be developed primarily in the US and will be potentially unusable in Europe unless appropriate privacy safeguards are built in. PCAST (2014) argues that policies which concentrate on the collection and storage of data are unlikely to improve privacy and could only be enforced at the expense of "severe and economically damaging measures". The overall environment in the US generally relies on utilitarian approaches which weigh up the possible benefits against the risks and costs. Meanwhile in Europe basic human rights are so fundamental that it is difficult to justify breaches of them despite any benefits to society or industry that might accrue (Ess and AoIR 2012).

Schwartz (2010) puts it simply: the American approach tends to permit the use of personal information unless a law prohibits it, partly because of the protections for freedom of expression in the First Amendment. The EU however has laws which cover all processing of personal data. The UK's Information Commissioner is clear: "The complexity of big data analytics is not an excuse for failing to obtain consent where it is required" (ICO 2014).

Prinsloo and Slade (2013) suggest that despite most universities having policy frameworks to safeguard data privacy and regulate access, the frameworks are not necessarily adequate to address the specific ethical challenges of learning analytics. What leaps out from their evaluation of policy frameworks in their institutions is the extraordinary number of documents relating to legal and ethical issues that the student may be required to navigate through. It is difficult to consider this to be *informed* consent. Surely the systems themselves must provide prompts rather than the institution holding such data in a range of policy documents which few students will have the time or inclination to read.

5: Institutional approach

Ethical stances vary across domains and geography. Practices in market research and social networks may not be applicable to education for example (Kay, Korn & Oppenheim 2012). Meanwhile within a single institution there will be competing objectives. Prinsloo, Slade & Galpin (2012) describe how institutional goals such as widening participation may conflict with the findings of learning analytics. Organisations may concentrate on increasing the number of graduates, improving the completion rates of disadvantaged students or maximising profits. Learning analytics will be applied differently depending on the key drivers of the institution (Slade & Prinsloo 2013).

A number of publications refer to the underlying motivations of an institution regarding how they approach struggling students. Contact North (2012) uses the example of a student who is struggling with Calculus – do the analytics which discover this trigger additional help from a tutor or advice to withdraw from the subject? Willis & Pistilli (2014) ask if it is "unethical for an institution not to readily offer support when it can identify students who might benefit from various resources?" Campbell, DeBlois & Oblinger (2007) extend this potential "obligation to act" to the students themselves. Kay, Korn & Oppenheim (2012) describe how institutions have an increasing obligation to use data to support progression and to maximise learners' employability.

Systems and methodologies may be developed based on an institutional philosophy which values high grades and rapid progress; this may not always be what the individual wants nor in their best interests (Johnson 2014). Slade and Prinsloo (2013) go further in arguing that it is inevitable that institutional algorithms will "reflect and perpetuate current biases and prejudices". They believe that students should be enabled to act outside such imposed models.

While there will be considerable common ground a code of practice for learning analytics may therefore need to take account of the potentially quite different ethical approaches of institutions.

6: Awareness and consent

Awareness - questions	
1. Does the administration let the students/staff know their academic behaviours are being tracked?	Hoel et al. 2014
2. How much information does the institution give the teachers?	Hoel et al. 2014
3. Do students appreciate that information is being gathered about them?	Slade & Galpin 2012
4. Are we explicit about what we might do with that information?	Slade & Galpin 2012
5. Is it appropriate for students to have an awareness of the labels attached to them?	Slade & Prinsloo 2013
6. What and how much information should be provided to the student?	Willis, Campbell & Pistilli 2013
7. Should the results [of predictive analytics] be shared with the student, faculty or other staff?	Campbell et al. 2010
8. Should the information collected in one course be made available to teaching staff of another course?	Pardo & Siemens 2014
9. To what extent should students have access to the content of their digital dossiers, who has access to these dossiers?	Prinsloo 2013
10. Will adult learners expect unmediated access to internal analysis of their performance?	Reilly 2013
11. Who can see the data collected?	Slade & Galpin 2012

People have very little idea of what data is being collected about them or shared with third parties (Richards & King 2014). It is not clear to what extent students are aware of how much personal data is being recorded by their institutions, though they are increasingly used to being monitored in other aspects of their lives (Slade & Prinsloo 2013). The Open University (2014a) in a recent policy document makes clear to staff and students the categories of data potentially available for learning analytics: personal information provided by the student, the student's study record, sensitive information such as ethnic origin and disability, details of contacts between the student and the University, interactive content generated by the student, system-generated data such as accesses to the Virtual Learning Environment (VLE), data derived from other data and data generated internally e.g. student use of a library subscription service. In addition provisions are made for the use of anonymised data both internally, e.g. forum posts, and from external datasets such as social networking sites – but only to generate information on a cohort rather than individuals. Also listed are data types out of scope for learning analytics such as data on student complaints.

Information Commissioners Office (ICO) (2014) reports on an Organisation for Economic Co-operation and Development (OECD) meeting which attempted to classify personal data in a new way, based on its origins:

» **Provided data** – consciously given by individuals e.g. when filling in an online form

» **Observed data** – recorded automatically e.g. by cookies, sensors or facial recognition from CCTV pictures

» **Derived data** – produced from other data e.g. calculating customer profitability from the number of items purchased in a store and the number of visits

» **Inferred data** – produced using analytics to find correlations between datasets in order to categorise or profile people e.g. predicting future health outcomes

Big data generally uses observed, derived or inferred rather than provided data – this has implications for privacy as individuals may be unaware that the data is being collected and processed.

Two important ethical and legal principles for personal data are *notice*, the disclosure of what data controllers are doing with information, and *choice*, the ability for people to opt out of particular uses of their data (Richards & King 2014). *Informed consent* is recognised as key to the analysis of learner data by many commentators (e.g. Esposito 2012; Slade & Prinsloo 2013) and is a basic principle of scientific research on humans (ASA 1999). This can demonstrate credibility and accountability on the part of researchers and, by extension, the institution.

Fairness is also a key principle in the Data Protection Directive and relates to how data is obtained. Processing is unlikely to be regarded as fair if individuals are misled about how their data will be used when they provide their consent. Meanwhile if individuals do not have a real choice and cannot withhold their consent, then data controllers may be in danger of breaching the requirements of the Data Protection Act (DPA) (ICO 2014).

Consent - questions	
12. Does an individual need to provide formal consent before data can be collected and/or analysed	Campbell et al. 2010
13. To what extent do we provide students the option to update their digital dossiers and provide extra (possibly qualitative) data?	Prinsloo 2013
14. Do students have the right to request that their digital dossiers be deleted on graduation?	Prinsloo 2013
15. Can students opt to disguise themselves online?	Slade & Galpin 2012
16. Should students have input regarding what data is stored and how it is used?	Willis & Pistilli 2014

Traxler & Bridges (2005) describe informed consent as referring to students' "understanding of the nature, extent, duration and significance" of their participation. However, in order to provide their consent students need to know what data are collected, and when and how the data is being manipulated (Pardo & Siemens 2014). When requesting informed consent it is important to use language that is respectful and easy to understand, and allow participants to ask questions about the research at any stage. In conventional research the subjects should be told that their participation is voluntary and that withdrawal does not incur any penalty. They should also be informed about the possible consequences of non-participation or withdrawal (ASA 1999).

Researchers should be aware that they can subtly influence participants because of the researchers' expertise or authority, and they should take this into account when developing informed consent procedures (American Educational Research Association - AERA 2011). However declining to participate in learning analytics could have a negative impact on academic success so a student may not feel they have much choice in agreeing to be monitored. The concept of *voluntary* informed consent, as used by the British Educational Research Association (BERA, 2011), is laudable but not necessarily achievable by institutions which wish to make extensive use of learning analytics.

So how can consent best be granted by students? Clearly the ticking of a box at the end of a lengthy agreement in a small font in complex legal language which few users have the time or inclination to read cannot be regarded as *informed*. Even if they do read the policies they can find them vague regarding what is actually done with their personal information. The Data Protection Act requires that users give proper informed consent but the Act does not refer to the logistics of how this is obtained. A checkbox for opting into data collection, which requires a positive action, is more likely to be considered valid than one for opting out (Kay, Korn & Oppenheim 2012). However, users may fail to check the box thus denying them the benefits of learning analytics and posing further ethical and logistical problems for the institution.

Sometimes various options are provided but ICO (2010) suggests that people generally do not use the privacy choices available to them. They may not look for them in the first place, may not find them, and might not understand or realise their significance. They may also expect basic privacy protections without having to make any active choices themselves. It is good practice to set privacy defaults to reflect what most users are likely to expect. If users then alter their privacy settings from the defaults this may be an indication that they should be reset. PCAST (2014) suggests that people could sign up to one of a series of "privacy preference profiles" which might put particular emphasis on individual rights or value to the consumer. In the UK the DPA requires institutions to provide a "fair processing notice" or privacy notice, informing users as to when their data will be collected and how it will be used. It needs to provide details of the organisation collecting the data, the purposes for which it will be processed and other information required to ensure the processing is fair (ICO 2014).

Complex terms of contract and long-winded privacy notices may send out the wrong message to students – something to beware of in light of the inBloom fiasco. Instead institutions must develop a trusting environment and a culture of ethical data use (Polenetsky & Tene 2014). One study suggests that people will not read privacy policies if they perceive that the cost of reading them is greater than the benefit of doing so, and that users tend to scan the documents for particular information rather than read them comprehensively. The authors estimate that if people were to read the privacy policies for all the websites they visit it would take them 201 hours per year, a cost of $3,534 for the average Internet user in the US (McDonald & Cranor 1998).

Facebook's privacy policy itself is reported to contain more words than the US Constitution and while users are able to change their privacy settings they are presented with over 50 toggles which result in over 170 privacy options (Rayport 2011). Adding to the confusion providers regularly change their privacy policies and may or may not make that clear to the user (Pardo and Siemens 2014). There is a fundamental imbalance in the relationship between the provider, which offers a lengthy set of terms on a take-it-or-leave-it basis, and the user who has little time to read the document (PCAST 2014). However, ICO (2014) challenges data controllers to be "as innovative in [the provision of privacy notices] as they are in their analytics, and to find new ways of conveying information concisely."

Few people are aware of the many players operating in the big data world, particularly data brokers and analysis companies, so it becomes very difficult for an individual to request access to their data. (IWGDPT 2014). Some approaches from industry are worth noting however. Amazon provides information on its recommendation system to customers who can manage their own browsing history, deleting irrelevant items from it (such as gifts to others) or turning off Amazon's ability to track them. This transparent approach provides useful customer feedback to the company and heightens trust. Errors that arise from poor data, mistaken assumptions or faulty algorithms can also be reduced by allowing users to steward their own data (Schwartz 2011). Clearly only some types of data could be available for correction by students – the dates and times they are connected to a university system for example might not be appropriate for modification (Pardo and Siemens 2014).

Slade and Prinsloo (2013) speculate as to whether there are ever special circumstances which would trump the need for informed consent. They consider that there are few or no reasons in higher education to avoid full transparency regarding the uses to which student data is being put. They add that the methods for obtaining informed consent should be renewed regularly as the technologies and applications are evolving so rapidly.

As stated earlier, a key benefit of big data is the potential for finding patterns or drawing conclusions which could not have been predicted in advance. In the same way it is not possible to predict all the potential impacts on privacy when asking users for their consent. Big data systems do not necessarily produce personally identifiable information when the data is initially gathered (Crawford & Schultz 2013) although it can be assumed that most data used for learning analytics will be attributable to an individual. Crawford & Schultz also argue that the greater the implications of a particular decision based on big data, the greater right a person should have to question how that decision was arrived at. While the Data Protection Directive may require all such decisions to be made transparent to the user, it can be assumed that learning analytics systems which have a direct impact on the individual (e.g. helping to produce a grade) need to be thoroughly explainable.

As noted earlier the DPD and DPA require that students are informed when data about them is being collected or processed. Not only must they be told about the process but they should also be able to access any of their data. Finally they should be informed about how any automated decisions are made:

There is though a provision in the law for institutions to process data where it is not viable to obtain the data subject's consent, based on the "legitimate interest" of the data controller. These must not however override the interests of the individual. The data controller must balance their legitimate interests and the individual's against each other before deciding on a course of action. The way forward then is to ensure that students are informed about the data collected about them, where it comes from, what is done with it and whether it will be passed to third parties. Individuals should be given access to their profile and all the information held about them – in a user-friendly, portable format. They should be able to correct it and to opt out where possible (International Working Group on Data Protection in Telecommunications - IWGDPT 2014).

A potential problem if students have the opportunity to adapt the data about them is that they may choose to actively misrepresent themselves to avoid being labelled (Slade and Prinsloo 2013) or to portray themselves in a more favourable light.

The logistics of giving access to individuals about the data held about them are highly complex, given the number of systems in use by universities and colleges. The Open University (2014b) aims "in the near future … to provide basic aggregated results to students who request this information". The institution states that there are

still technical and organisational impediments to giving the students access to their data securely and transparently.

Providing students' information to them may at least be more feasible in a web-based environment than where learning is taking place through mobile devices. Traxler and Bridges (2005) suggest that it may be impossible to explain the scope of the activity in a way which is succinct enough to be appropriate for presentation on a mobile device.

Finally, a key issue for big data and learning analytics is that the DPD requires that consent must be given if personally identifiable data is to be used for a different purpose to which it was originally intended. Institutions should assess the compatibility between the original and proposed purpose for every case (IWGDPT 2014).

7: Transparency around algorithms and metrics

Transparency around algorithms and metrics - questions	
17. How transparent are the algorithms that transform the data into analytics?	Reilly 2013
18. Who can see the models?	Slade & Galpin 2012

Users of online services may have control over what information they share but are highly unlikely to understand the complexities of how their data is being processed subsequently. Arguably the granting of consent is meaningless if learners have no conception of the way their data is being used – or could potentially be misused. The paradox is that any document which properly explains the complexities is unlikely to be understood or read while summaries are likely to be over-simplistic. Meanwhile some organisations attempt to give an impression of transparency which can hide what is really going on (Office of the Privacy Commissioner of Canada - OPCC 2012).

Secret processes and opaque and unaccountable algorithms can hide arbitrary or unfair decision making (MacCarthy 2014). Transparency regarding the purposes to which data is being put, who will have access to it, and how identities are being protected is a responsibility of the institution. However, it may not be possible to make the software tools and their predictive models public if they are proprietary (Pardo & Siemens 2014). Another possible tension is between academics' desire to publicise research findings about the algorithms they have developed and the interests of their university in protecting that information in order to maintain competitive advantage or to exploit the products commercially (Sun 2014).

The use of big data must be transparent according to Richards & King (2014) who argue that transparency helps to prevent abuses of institutional power, helps individuals to feel safer in sharing their data and results in better predictions. Slade & Prinsloo (2013) go further in arguing that universities should inform students of the risks when learning takes place in the wider Internet, outside the confines of institutional systems. They also warn that full transparency regarding methodologies brings the potential that students will abuse the system, providing false or incomplete information to obtain extra support.

8: Ownership and control of data

Ownership and control - questions	
19. Who determines which data is collected and shared?	Campbell et al. 2010
20. How are use decisions made [regarding the data warehouse]?	Campbell et al. 2010
21. Can anyone use the data warehouse for any purpose?	Campbell et al. 2010
22. Who really owns the [analytics] information?	Kay et al. 2012
23. Who is ultimately responsible for maintaining [the information]?	Kay et al. 2012
24. Are the goals of the instructor, department chair, dean and provost aligned?	Contact North 2012
25. Who owns a student's data?	Prinsloo 2013
26. Who can influence the models?	Slade & Galpin 2012
27. Who can mine our data for other purposes?	Slade & Galpin 2012
28. Who gets to decide what happens next?	Slade & Galpin 2012
29. Who can choose which students get more/less support?	Slade & Galpin 2012
30. Do teachers, learners and administrators have the same authority/rights to determine what support is provided?	Slade & Galpin 2012
31. Is there a shared responsibility to ensure that information is accurate?	Slade & Galpin 2012
32. Who has the power to make decisions about the learning analytics model and data?	Swenson 2014
33. Who has the power to legitimize some student knowledge or data and not others?	Swenson 2014
34. Who has the power to focus on potential intervention strategies and not others?	Swenson 2014
35. Who has the power to give voice to certain students and not others?	Swenson 2014
36. Who has the power to validate some student stories and not others?	Swenson 2014
37. Who decides what feedback is valid and how often it should be delivered?	Willis & Pistilli 2014
38. Who determines what constitutes a successful outcome in a student career?	Willis & Pistilli 2014

Ownership and control - questions	
39. Who is responsible when a predictive analytic is incorrect?	Willis, Campbell & Pistilli 2013

Bollier (2010) refers to a "Declaration of Health Data Rights" by an organisation called HealthDataRights.org, which now seems to be defunct. It asserts that we should:

» Have the right to our own health data

» Have the right to know the source of each health data element

» Have the right to take possession of a complete copy of our individual health data, without delay, at minimal or no cost; if data exist in computable form, they must be made available in that form

» Have the right to share our health data with others as we see fit

This ethical stance would seem to be appropriate for learners' data and to comply with the Directive. Another analogy is with credit rating agencies which are obliged to give consumers copies of their credit records on request (Bollier 2010). One issue here for institutions is that the vast amount of data assembled on every electronically captured interaction the institution has about an individual would be overwhelming and meaningless. Do we therefore ensure that we give students copies of the summarised data with our interpretations and visualisations instead of or as well as the raw data?

Issues of ownership are linked to issues of control and responsibility. One question raised by Campbell, DeBlois & Oblinger (2007) in this regard is who decides what information can be shared with students and staff and how should this be done? Swenson (2014) asks more specifically who has the power to:

» make decisions about the learning analytics model and data

» legitimise some student knowledge or data and not others

» focus on potential intervention strategies and not others

» give voice to certain students and not others, and

» validate some student stories and not others

Pardo and Siemens (2014) ask who owns the data: institutions, students or the companies which might use them to enhance their products? A relevant legal issue here is the intellectual property rights (IPR) in the data relating to a student. As these have been collected and possibly enhanced by the institution it is the owner of the IPR. However, it must ensure that the data are accurate or the student can request that they are deleted. At any time the student can request a copy of their personal data though the IPR remains with the institution which may prevent the student further transferring it. This has implications for the portability of learning analytics as a student moves from one institution to the next, taking their own data with them (Kay, Korn & Oppenheim 2012).

Clow (2012) argues that metrics used for analytics should be open and transparent, and that this removes potential barriers to the effective use of analytics, increasing the social acceptability of the process. He suggests

that misapplications are more likely to be noticed by stakeholders if the data is open and therefore able to be corrected. Clow does not advocate openness for all learners' data and metrics but suggests that restrictions should not be added unnecessarily.

9: Using publicly available data

Publicly available data - question	
40. Should learners involved in an open course be required to give consent for data collection and analysis?	Pardo & Siemens 2014

There may be something fundamentally different about learner data when individuals choose to engage in public environments or mass environments such as Massive Open Online Courses (MOOCs). Clearly the responsibilities of institutions are different in relation to data in systems such as Twitter than they are with data held in the institutional "walled gardens" of the student information system and the VLE. Esposito (2012) asserts that privacy seems to be less of a concern to researchers when the data is already publicly available. If the forums of a MOOC are visible to the public as well as enrolled participants there may be a greater acceptance that user activity and comments are subject to scrutiny and analysis. The fact that a MOOC can take place in multiple systems may add to this. However, there is a registration process for MOOCs in Coursera and FutureLearn, for example, and non-participants cannot view forum postings and other data on learners so there would appear to be a greater responsibility on those MOOC providers to steward the data appropriately.

Esposito believes that when learners post a message in a forum there is an assumption that the content will be read or archived. However, users may be less comfortable with their messages being subject to analysis by researchers and it may be better to obtain their informed consent for this in advance. The example is given of learners feeling "violated if they saw their posts de-contextualised and highlighted in a publication". There is the usual problem with quoting people here too in that some prefer their comment to be anonymised while others feel they should be acknowledged as the author.

The ethics of using data from social networking sites are discussed by Rivers & Lewis (2014). They argue that it is generally regarded as appropriate to collect information without consent from physical public spaces where there is a reasonable expectation of observation by strangers. However, they suggest that tweets, while readable by anyone with internet access, are individually attributable which makes them fundamentally different from observations on aggregate populations in a physical space. Twitter users, they propose, can expect a level of "anonymity of the crowd" to help manage their privacy; they give an example of someone who discusses his mental health with his digital community but does not expect his comments to be used subsequently by researchers.

As well as obtaining informed consent from students for use of their data from external sites, Slade & Prinsloo (2013) note two additional concerns to address. Firstly, the institution has no control over the varied data protection policies of those sites. Secondly, it may be impossible to authenticate student identity properly.

10: Accuracy of data

Greller & Draschler (2012) believe that flawed data is the biggest technical challenge for analytics. They point out that users frequently "pollute" databases with erroneous or incomplete data. One example is a teacher who wishes to view their VLE from a student's perspective so sets up a test account which is then included in the analytics for the course. Another problem is "enmeshed identities" where the data does not differentiate between an authenticated individual and a group. Students working together on a device may unwittingly leave enmeshed fingerprints in their data. Meanwhile when data is collected against identifiers such as IP addresses or cookies and attributed to an individual there is a danger that it does not actually relate to that person at all. This could represent a privacy risk when access is provided to data relating to someone else (ICO 2010).

Bischel (2012) in an EDUCAUSE study of research into institutional use of learning analytics, mainly in the US, notes that many participants thought that problems with quality of the data should be tackled before an analytics problem is initiated. However, others felt the data would never be perfect and that this should not stop an institution from beginning to develop its analytics capabilities. Bollier (2010) quotes Jesper Andersen, a computer scientist and statistician, who warns that drawing conclusions from a single data source can be dangerous and that it is better to use data from multiple sources. Meanwhile Swenson (2014) is concerned about inaccurate or incomplete data used for predictive modelling. She suggests that lack of accountability is an issue when predictions are made without the statistical methods being verified and without the accuracy and completeness of the data being checked.

Obtaining the right data for learning analytics can be complex: Bischel (2012) mentions that ownership of data is an issue for many institutions, with it being held in "silos" and individual departments unwilling to make their data available for analytics. They suggest that senior management puts in place policies which oblige the sharing of data for learning analytics, balancing this with requirements for security and privacy.

Greller & Draschler (2012) point out a contradiction in that learning analytics requires publicly available datasets to advance the methods of researchers while the protection of learner data is a high priority of IT departments in institutions. They find it strange that in the commercial sector users are happy to click a "register" button, giving entire ownership of their data to a company, while in educational institutions "everything is protected from virtually everyone". Perhaps the ethical requirement to do something with the data if it could help students should be extended to sharing the data you "own" with others who may be able to use it for the benefit of learners.

Slade & Prinsloo (2013) propose that students should be given the opportunity to prove the predictions about their likely performance wrong or incomplete. Implementing this from a procedural and technical perspective may however be complex.

11: Considering personal circumstances

Personal circumstances - questions	
41. Does [a student profile] bias people's expectation and behaviours?	Campbell et al. 2010
42. Should the institution even create profiles that lead to generalisations about students?	Campbell et al. 2010
43. Are there profile uses that should be prohibited?	Campbell et al. 2010
44. Will the data influence perceptions of the student and the grading of assignments?	Hoel et al. 2014
45. Will the process become overly deterministic?	Reilly 2013

A working party at Charles Sturt University (2014) notes that "learning is a complex social activity and that technical methods do not fully capture the scope and nuanced nature of learning". Reducing the complexity of student behaviour to a number or a traffic light is pointed out by Campbell et al (2007) to result potentially in oversimplified or insensitive conclusions. Any algorithm or method will be reductive in that it attempts to create a manageable set of metrics which do not necessarily reflect reality (Greller & Draschler 2012). No prediction can take into consideration all possible factors such as problems at home or financial difficulties. Did the student fall in love or was a death in the family the reason for academic failure (Contact North 2012)?

Slade & Prinsloo (2013) point out that as much of the data related to learning is held in systems outside the control of the institution (e.g. in cloud-based public services) it is impossible to obtain a holistic picture of student life. Moreover the data itself is temporal and may only afford a view of an individual at a specific place and time, not allowing for the changing and multiple identities of learners as they progress through their studies.

A number cannot represent the personal growth or development of relationships that arise from attending an educational establishment. Johnson (2014) worries that data mining can treat a subject as a collection of attributes rather than an individual. He discusses course recommendation systems where students are encouraged to do what people like them have done before. Arizona State's eAdvising system aims to identify students whose skills do not match up to their ambitions. For Johnson it appears that learners are being thought of as mere collections of skills to be matched to an outcome rather than individuals. He thinks such systems undermine students' autonomy, and condemns Arizona State's processes to compel struggling students to change their major as "coercive", denying students the opportunity to take their own decisions. Meanwhile the "softer" approach of the course recommendation system at Austin Peay he feels encourages students to conform to the values and behaviours that the University considers to be most likely to result in success.

Such interferences may be valid on the basis of preventing wastage of taxpayer's money or guiding students who are not mature or informed enough to take sensible decisions. But every violation of autonomy should, Johnson feels, be justified. A way forward, he suggests, may be to design systems which encourage autonomy and help students to make decisions for themselves without institutional paternalism.

Campbell, DeBlois & Oblinger (2007) even question whether institutions should be creating individual profiles which lead to generalisations about students. Learning analytics solutions are largely technical and do not usually take into account the cultural and behavioural contexts of the learner, the learning, the discipline and the institution. Tertiary education can be an "individualised artisanal craft" where the standardised metrics and interventions of learning analytics may not fit easily (Contact North 2012).

Draschler & Greller (2012) quote one participant in their survey of 156 educational practitioners and researchers into the use of and attitudes to learning analytics:

> *It would be easy for learning analytics to become a numbers game focused on QA, training/instruction and rankings charts, so promoting its creative and adaptive potential for lifelong HE/professional-life learning is going to be key for the sector - unless learning analytics people want to spend all their lives doing statistical analysis?*

Siemens (2012) proposes that human-contributed feedback and corrective options can help to improve personalisation. This is already policy in some UK institutions such as Derby University and Bridgwater College where staff are able to contextualise automated email interventions before they are directed to students (Sclater 2014b).

12: Respecting privacy

Privacy - questions	
46. Will funders such as employers track progress?	Reilly 2013
47. Is informed consent a sine qua non or are there circumstances in which other principles override the need for informed consent?	Slade & Prinsloo 2013
48. Is it unethical for administrators to do whatever possible to help ensure student success, even if it means stretching the meaning of privacy?	Willis & Pistilli 2014
49. Is the improvement of the overall learning environment a valid reason to record the exact location of students within the institution and share it with peers to facilitate collaborative learning?	Pardo & Siemens 2014

Various leading figures from the IT world including Google and Facebook have declared that privacy is no longer a valid concept. However, the public outcry over Edward Snowden's revelations around the surveillance carried out by the US National Security Agency has shown that many people still regard privacy as extremely important. This has had knock-on effects for major IT companies who are concerned that unless the public can be reassured that their privacy is being protected they may stop using their services (Richards & King 2014). King & Richards (2014) argue that it is unrealistic to consider data as wholly in either the public or private domains. They also stress (in Richards & King 2014) that private information can remain confidential even after it has been shared and that privacy is not a simplistic, binary concept. However, information has to be shared in the era of big data in order for it to be useful.

PCAST (2014) outlines some of the main potential threats to privacy from big data. While this comes from a US perspective it is useful in outlining some possible privacy infringements which might arise from learning analytics applications in particular:

» **Invasion of private communications**: an individual's right to private communication may need to be re-established in the digital era

» **Invasion of privacy in a person's home**: one's "virtual home" now includes Internet access and storage of documents in the cloud

» **Public disclosure of inferred private facts**: analytics may infer facts from apparently harmless data sources. Examples are given of inferring sexual preference or Alzheimer's disease from user input, a private fact of which the individual may not even be aware. Presenting such information publicly would be widely regarded as unacceptable

» **Tracking, stalking and violations of locational privacy**: tracking is increasingly trivial using mobile devices and location-based services. Building a track of an individual's movements is a potential invasion of privacy

» **Harm arising from false conclusions about individuals, based on personal profiles from big-data analytics**: while false conclusions are possible about anyone, there are particular concerns here for groups such as racial minorities or the elderly

» **Foreclosure [inhibiting] of individual autonomy or self-determination**: people should be able to choose a course of action which is not necessarily predicted for them

» **Loss of anonymity and private association**: individuals should have the right to remain anonymous; re-identification of them from the data potentially infringes that right. People should also be able to associate with one another privately

"Information rules" might be a more appropriate and less emotive term than "privacy". Meanwhile, as has been discussed earlier, "data protection" is the term generally used in the EU. The crisis in privacy is around our ability to manage the uses of information that are held about us, most of which is in an intermediate state between completely private and completely public (Richards & King 2014).

The majority of respondents in Draschler & Greller's (2012) survey thought that only appropriate staff members should be allowed to view student data on a "need to know" basis, with many emphasising the need to control access in compliance with the law and ethics. Data from multiple sources should be preserved, secured and shared appropriately. Decisions need to be made on who can access the data (Campbell, DeBlois & Oblinger 2007). Should teaching staff be given access to data collected on other courses for which they are not responsible for example (Pardo & Siemens 2014)? If so should the identity of students for whom they are not responsible be masked?

At Oxford Brookes University there is a hierarchy of permissions for analytics data which is passed up through various levels of the administration with individuals unable to be identified except by those directly responsible for teaching or supporting them (Sclater 2014b). At Charles Sturt University the policy is to control access by roles and to set privileges based on the individual's position and how sensitive the data is. In addition audit trails are expected to be kept on who has accessed what data (Charles Sturt University 2014).

Despite the restrictions on access, how learning analytics systems are used in practice can potentially infringe students' privacy. At the University of Michigan it was found that academic advisors were regularly sharing dashboards designed for their own use with individual students. The screens showed data about other learners; a button was hastily added for advisors to hide the data about other students when required (Aguilar, Lonn & Teasley 2014).

As has been discussed earlier, the DPA makes a distinction between *personal data* and *sensitive personal data* which includes information on racial or ethnic origin, political opinions, religious beliefs, trade union membership, physical or mental health, sexual life and criminal records, and must be handled with particular care. It may be that the compilation of student profiles for learning analytics from a variety of data which are in themselves not especially sensitive, could nevertheless result in a finding which falls into this sensitive category (IWGDPT 2014).

One concern which institutions or individuals may have around confidentiality is whether they are required to release information attributable to specific students in response to a freedom of information request. However, the Freedom of Information Act specifies that no personal data should be disclosed in response (Kay, Korn & Oppenheim 2012). Meanwhile, institutions should be aware that the Data Protection Act continues to apply even

when personal data is already in the public domain (Ministry of Justice 2011). And while some organisations have attempted to avoid data protection legislation restrictions by sharing metadata instead of personal data, the power of big data algorithms means re-identification is possible which would therefore breach the DPD (and DPA) (Richards & King 2014).

13: Opting out

Opting out - questions	
50. Does an individual have an option to "opt out" of an analytics project?	Campbell et al. 2010
51. Should students be allowed to opt out of having their personal digital footprints harvested and analysed?	Prinsloo 2013
52. Can students opt out of having their information used?	Slade & Galpin 2012
53. What are the consequences of [students opting out]?	Slade & Galpin 2012

As has been noted the DPD implies that students have a right to opt out of data collection:

any data subject should … be entitled, on legitimate and compelling grounds relating to his particular situation, to object to the processing of any data relating to himself

While enabling students to opt out of both data collection and interventions ostensibly complies with the legislation, a number of negative consequences of this have been discussed. For the purposes of general educational research and the "greater good" of learning analytics, having gaps in the dataset is unhelpful. Researchers should seek to minimise harm to individuals, however, there may be situations where they have to balance the risks to participants against the possible benefits for others (ESRC 2012). A key moral problem for institutions of allowing students to opt out is whether by "harming" one learner, perhaps by breaching their privacy, they are potentially benefitting students overall. Pardo and Siemens (2014) provide a hypothetical example of an institution which records the location of its students and shares them with others to encourage collaborative learning. They point out that in medical research analysing patients' records can have benefits for society as a whole and that in learning contexts too absolute confidentiality may not always be for the best of the wider group.

Slade & Prinsloo (2013) think that the benefits for many outweigh the rights of individuals who wish to withhold their data for reporting purposes e.g. to funding bodies. However, students should, they believe, be able to opt out of having their learning personalised, assuming they are made aware of the consequences. Such decisions may be highly contextual though - personalised learning may evolve to such an extent that opting out on an individual basis simply does not make sense in the context of the pedagogy.

The Open University (2014b) does not currently enable students to opt out of data collection but proposes this as a possibility for the future. However, it suggests that "opt out would most likely relate to the delivery of personalised interventions rather than the removal of individual student data items from the complete set of data for analysis". A "frequently asked question" which it is suggested that students might ask is:

I understand that the University needs to collect a certain amount of personal data, such as my ethnicity, age and previous educational experience. Can I choose not to have my data included in any analysis that links to learning analytics?

The answer given is:

> *In order to have a complete dataset, the University will use all student data to analyse patterns of behaviour. The analysis stage works on the dataset as a whole, that is, it does not identify an individual student by name or PI. It is important to maintain a full dataset here as any significant loss in student data may mean that the remaining dataset is not representative of the whole.*

The implication here is that sensitive information of this nature will not be used to support individual students. It is not clear how this will be reconciled with the assertion in another document that ethnic origin and disability are regarded as in scope for learning analytics (The Open University 2014a).

14: Interpretation of data

Interpretation of data - questions	
54. What are the potential ethical consequences of stripping data of personally identifiable information?	AoIR 2012
55. How might removal of selected information from a dataset distort it such that it no longer represents what it was intended to represent?	AoIR 2012
56. How complete and permanent a picture do our data provide about students?	Prinsloo 2013
57. [Are] bigger data sets always better or [do they] provide more complete pictures?	Prinsloo 2013
58. How reliable and robust are the models?	Slade & Galpin 2012

Siemens (2012) points out that the two main data sources for learning analytics, virtual learning environments and student information systems, represent only a fraction of the learning that takes place, and that work is needed to integrate data from other sources such as libraries, mobiles and social media profiles. These will provide "analytics opportunities that far exceed single data points."

Bollier (2010) says that visualisation tools for analytics can make it very easy to find spurious correlations – relationships that do not really exist. However, it can be more difficult to draw objective conclusions from more than one data source as they are all prone to errors and you may simply be magnifying the inaccuracies when you combine multiple datasets. The challenge is to discover what the most relevant data is for you to be collecting in order to make the right decisions. Less may turn out to be more; as opinion pollsters and market researchers know, small samples can be very reliable proxies for large populations. Prinsloo, Slade & Galpin (2012) find that the sheer volume of student data collected in their large institutions (the UK Open University and the University of South Africa) can prove problematic in developing understanding of student and institutional behaviours. Ellis (2013) argues that when carrying out learning analytics using assessment data it is better to base the analysis on pedagogical principles rather than on what data is available.

One of the key stated benefits of big data is that patterns can be discovered and conclusions drawn which were never anticipated. This tends to conflict with traditional scientific method where a theory is postulated and the data is then sought to confirm or contradict it. It also challenges the privacy principle in the Directive that data cannot be used for purposes incompatible with the original purpose. As big data is also about maximisation it conflicts with the principles of relevance and data minimisation, principles which are intended to ensure that only the data required is stored, and that it is deleted when it is no longer of use for its original purpose. The point about big data is that its value is related to possible future uses as well as current purposes. Organisations will not wish to delete data which could be a future source of insights and revenue; it may thus become increasingly difficult for authorities to enforce the requirement to delete personal data (IWGDPT 2014).

A *Business Week* journalist, Stephen Baker, believes that predictions based on big data do not necessarily have to be correct – they just have to be better than the status quo. Revenue streams for companies can be based on imprecise data methods, and finding the truth is less important than what works (Bollier 2010). Is it the same in education or are we under a greater obligation to establish the "objective truth" before taking action? The algorithms and student profiles should be regularly assessed to ensure that analytics result in responsible, fair and ethical decisions (IWGDPT 2014).

An unwieldy raw data dump provides little value to staff supporting students (Dringus 2012) or indeed to the students themselves. Greller & Draschler (2012) refer to conceptual instruments including theories, algorithms and weightings which help to develop information from the raw data. The methods chosen will have a significant influence on the quality of the information and could produce different outcomes with consequences for decision making. A common issue arising from the interpretation of learning analytics is that correlation is often mistaken for causality. Moreover, correlation analysis, while potentially proving accurate for a group, can be incorrect or misleading for an individual (IWGDPT 2014).

15: Stewardship, preservation and deletion of data

Stewardship questions	
59. How is the data preserved, secured and shared?	Campbell et al. 2010
60. What happens to learner data once their relationship with the provider has ended?	Reilly 2013
61. How long is data kept for?	Slade & Galpin 2012

Learners should be able to develop without records of past experiences "becoming permanent blemishes on their development history". Such data should have an agreed lifespan and expiry date, and students should be able to request the deletion of data relating to them according to agreed criteria (Slade & Prinsloo 2013). The Open University's Retention of Student Data and Records Policy states that there is an expectation by students, employers and Government agencies that students' names, modules, qualifications and outcomes will be retained permanently, and also that some data needs to be kept while a student is studying with the institution, which can be for many years (Prinsloo & Slade 2013). It would seem however that most learning analytics data is unlikely to be regarded as appropriate for permanent retention.

The key dilemma for institutions in this area is described by Pardo & Siemens (2014): guaranteeing that personal data will be deleted will build trust among student, however, keeping that data allows institutions to refine their models, track performance over multiple years and cohorts and assist with quality assurance processes. Applying big data techniques to large datasets regarded as worthless could result in valuable insight to the institution (PCAST 2014). Arguably though many of these functions could still be carried out using anonymised data, minimising risks to privacy. Useful guidance from the UK Information Commissioner (ICO 2014) is that:

big data analytics is not an excuse for stockpiling data or keeping it longer than you need for your business purposes, just in case it might be useful. Long term uses must be articulated or justifiable, even if all the detail of the future use is not known.

PCAST (2014) points out that it may not be possible for data controllers to discover all the information they hold about an individual or to be absolutely sure that they have deleted all data relating to that person, and not immediately as might be expected by the data subject. As data is increasingly distributed it is difficult to prove that it has been completely erased. Moreover, as soon as data has been presented to an individual's eyes or ears in an analogue way, it can be "re-digitised". Rogue computer programs may also obtain data and copy it illegally elsewhere. Meanwhile, metadata may be stored separately and thought of as fundamentally different but may be as important in identifying individuals as the data itself. The only realistic position, PCAST suggests from its US-based stance, is to assume that as soon as data is created it is permanent; policy should therefore concentrate on the use of data rather than its collection. The emphasis should be on preventing inappropriate use of the data rather than resorting to anonymisation.

16: Interventions and the "obligation to act"

"Obligation to act"- questions	
62. What is the responsibility of faculty, students and institutions to act on [predictive analytics]?	Campbell et al. 2010
63. With whom does the obligation to act lie? How is the responsibility shared among different groups?	Campbell et al. 2010
64. What responsibility comes with "knowing"?	Prinsloo 2013
65. Once administrators "know" something about a student (via statistical regression), are institutions or individuals compelled to act? What happens if no action occurs?	Willis 2014
66. What is the role of "knowing" a predictive analytic — once something is known, what are the ethical ramifications of action or inaction?	Willis & Pistilli 2014
67. Is it unethical for an institution not to readily offer support when it can identify students who might benefit from various resources?	Willis & Pistilli 2014
68. Once an administration "knows" something about student performance, what ethical obligations follow?	Willis, Campbell & Pistilli 2013
69. Once a college's administration has the tools to "know" with statistical significance those who might be in jeopardy of failing, who is compelled to act on that knowledge?	Willis, Campbell & Pistilli 2013

A key ethical issue mentioned by various authors (e.g. Campbell, DeBlois & Oblinger 2007; Kay, Korn & Oppenheim 2012) is around the "duty of care, "obligation of knowing" or "obligation to act". What obligations do staff, students and institutions have to take action on the basis of predictive analytics? One of Slade & Prinsloo's (2013) principles is that universities "cannot afford to not use learning analytics" and that to ignore data which might help achieve an institution's goals seems "short-sighted in the extreme". There may also be a risk that a failed student could take legal action against an institution that had information that they were at risk but did not provide additional support (Kay, Korn & Oppenheim 2012). This principle is made concrete in The Open University's (2014a) policy where it is stated that:

> *Where data indicates that there is potential for action to be taken which might better support students in achieving their study goals or in reaching their potential, the University has a responsibility to act on this. For example, if there is evidence that a student is not engaging with essential learning activities, we should consider making an appropriate intervention.*

Prinsloo, Slade & Galpin (2012) argue that while student data, and the resulting analytics, can help with decision making, institutional decisions, processes and *non-action* by the institution can have a major effect on student choices and actions.

Interventions - questions		
70.	How should teachers react to the data? Should the teacher contact the student?	Hoel et al. 2014
71.	[What are digital dossiers] used for?	Prinsloo 2013
72.	What recourse do institutions have when students provide false or incomplete information which may provide them with additional support at a cost to the institution (and to other students)?	Slade & Prinsloo 2013
73.	What happens when something unexpected turns up in the data (either as a single previously unknown data point or as a correlation of aggregate data)? What infrastructure exists to handle it?	Willis 2014
74.	How should the faculty member react to the data?	Willis, Campbell & Pistilli 2013
75.	Should the faculty member contact the student?	Willis, Campbell & Pistilli 2013
76.	What action is appropriate based on the information learned as a result of the analysis?	Willis, Campbell & Pistilli 2013

But whose responsibility is it to take action and how is the action distributed across groups? Are the goals of instructors, managers and senior management aligned? Information derived through learning analytics should not be applied simultaneously for competing purposes (Contact North 2012).

Campbell, DeBlois & Oblinger 2007) wonder if some actions, based on student profiles which may be generalised (and therefore inaccurate) should be prohibited. If so it will be important to establish what types of action could be inappropriate. Willis & Pistilli (2014) suggest being guided by the question of what *should be done* as opposed to what *can be done*. However, even if appropriate interventions can be put in place it may be difficult for staff to find the time to take them and they may not be rewarded adequately for doing so (Contact North 2012).

Swenson raises a concern about whether intervention strategies might favour one group of students over another e.g. campus-based over distance students. The algorithms themselves may actually reinforce discriminatory attitudes and actions, selecting at-risk students on the basis of race or gender (MacCarthy 2014) or wrongly directing them into pathways designed for those with high or low potential (PCAST 2014). This in turn could further stratify society, and also limit students' possibilities of learning through failure and experimentation. However, learning analytics and big data, despite potentially creating discrimination, could also help it to be identified and addressed (Polonetsky & Tene 2014).

Data can very easily be misinterpreted and interventions ill-thought out. At Rio Salado College a correlation was identified between logins on day one of a course and subsequent student success. An assumption was made that if students were encouraged to log in on their first day they would be more likely to succeed. The welcome email that was sent to students as a result turned out to have no impact. An alternative theory of the relationship between the early logins and success is that both are related to the learner's motivation (Johnson 2014).

Student responsibility - questions	
77. What obligation does the student have to seek assistance?	Willis, Campbell & Pistilli 2013
78. What is the obligation for the student to either accept explicit guidance or to seek support which may be in conflict with their own preferences or study goals?	Ferguson 2012
79. At what point are college students to be treated as independent agents who are, as adults, responsible for their own successes and failures?	Willis & Pistilli 2014

How students should respond to the guidance or direction provided by learning analytics systems is another issue. Dashboards and automated interventions should not give students the impression that the academic environment is completely controlled; ultimately it is their choice whether to take up any additional resources or support offered as a result of learning analytics (Willis, Campbell & Pistilli 2013). Slade & Prinsloo (2013) ask what obligation learners have to take recommended actions that are contrary to their own aims or preferred ways of studying. If students are allowed to opt out, the consequences of missing out on additional support should be made clear to them and other stakeholders. Meanwhile, there is arguably an obligation on the institution to prevent students from continuing on a particular pathway when analytics demonstrate that it is neither in their interests nor the institution's to continue. (Slade & Prinsloo 2014).

The Open University's Data Protection Policy states that the institution may use data about the student's ethnic background or disability to identify those requiring additional support. They "consider disclosure of this information as explicit consent to use this information for this purpose". Not using such data alongside educational performance data is arguably immoral in an educational system where there are historic injustices in relation to characteristics such as race and gender (Prinsloo & Slade 2014).

17: Impacts on student behaviour

Impacts on student behaviour - questions	
80. What affect will [unmediated access to internal analysis of learners' performance] have on learning outcomes?	Reilly 2013
81. Could comparable learning analytics visualised for ready consumption become part of job applications?	Reilly 2013
82. Are there some labels which should be prohibited?	Willis & Pistilli 2014
83. Will the data affect student motivation in any quantifiable way?	Willis, Campbell & Pistilli 2013
84. Will the data influence perceptions of the student and the grading of assignments?	Willis, Campbell & Pistilli 2013
85. Who is affected by the analysis or application of big data, and how should they be affected by it?	Willis, Campbell & Pistilli 2013
86. Does the institution provide a calculated probability of academic success or just a classification of success (e.g., above average, average, below average)?	Willis, Campbell & Pistilli 2013

There are dangers in using correlations to make predictions. Interventions can "incentivise behaviour" (Johnson 2014), and if users know their behaviour is being monitored they may alter it to "game" the system – or do so subconsciously (Bollier 2010). Clow (2012) discusses how learners' behaviour is influenced by the assessment, and how in the same way learning analytics systems bring a risk of optimising decisions based on a metric which does not reflect the fundamental outcome desired.

Optimism is expressed by Ellis (2013) about the positive impact on students when presenting them with information about where they are placed relative to their cohort (or previous groups of students), "motivating them to improve and aspire to higher levels of achievement". She feels that the attitudes and behaviours of successful students can be used to guide and encourage the lesser-achieving ones. While some learners who are labelled "at risk" may be motivated to do better, particularly if they are equipped with the skills and life circumstances to be able to do so, increased awareness may have adverse consequences for less fortunate students (Swenson 2014). Willis & Pistilli (2014) also mention the possibility of predictions given to students becoming a self-fulfilling prophecy which cause them to give up on a module or course they are predicted to fail. As the algorithms and metrics become more fine-tuned and trusted will this effect intensify?

Ellis (2013) suggests making the learning pathways and strategies that are most likely to lead to success more explicit; perhaps this would reduce the potential negative motivational impact of direct comparisons with peers.

User behaviour may be influenced by the knowledge that data is being gathered or metrics produced as a result of it but perhaps more seriously learners and teachers may be put off using the systems completely if they feel they are being monitored. The interests of some stakeholders may even be contradictory: managers want to analyse the effectiveness of teaching but teachers see this an intrusion on their privacy or autonomy (Chatti et al. 2012). The involvement of students and different types of staff in developing policies around the use of learning analytics is therefore suggested as essential. Greller & Draschler (2012) also suggest that judgements about a learner based on a limited set of parameters could limit their potential. They think prejudices regarding race, class or gender may be reconfirmed with the data, resulting in restrictions imposed on certain groups of learners.

Not only might behaviour be influenced by learning analytics but also status. Swenson (2014) asks whether predictive categories may unintentionally reinforce social power differentials and learners' status vis-à-vis each other. She also wonders to what extent a student being described as "at risk" corresponds with them actually being at risk or feeling at risk. A further danger exists that analytics will infantilise students or spoon feed them with automated suggestions by making the learning process less demanding (Ellis 2013).

Crawford & Schultz (2013) note that organisations rarely inform individuals about potentially harmful predictive systems until they are implemented, and are generally unwilling to share the rationale for any predictions that are made. They argue that institutions are under no legal obligation to record audit trails around predictions. However, this may be indefensible in the European context. Meanwhile, such audit trails would potentially increase accuracy and enable students to question how their data is being used.

IWGDPT (2014) expresses another concern: where increasing numbers of decisions are based on algorithms we will be judged more on what are expected to be our likely future actions than on the basis of our actual actions. The group also mentions the concepts of "echo chambers" or "filter bubbles" where intelligent software exposes us to content which confirms our own attitudes or beliefs. There is a potential danger that learning analytics could channel students in convenient pathways which do not sufficiently challenge us. The exchange of different opinions and viewpoints among people of different backgrounds is arguably a vital aspect of higher education to preserve.

18: Targeting resources appropriately

Triage – questions	
87. Who receives priority if resources are limited?	Campbell et al. 2010
88. Will access to support services be limited to those with the greatest need, or will anyone who has interest be able to receive help?	Campbell et al. 2010
89. What amount of resources should the institution invest in students who are unlikely to succeed in a course?	Hoel et al. 2014
90. How do we make moral decisions when resources are (increasingly) limited?	Prinsloo & Slade 2014
91. Do we have a responsibility to ensure equitable treatment of students based on what we know? (or despite what we know)	Slade & Galpin 2012
92. What amount of resources should the institution invest in students who are unlikely to succeed in a course?	Willis, Campbell & Pistilli 2013

With limited resources institutions may wish to target activity at those students who are likely to benefit the most from interventions. Campbell, DeBlois & Oblinger (2007) question whether this is fair and ask whether those of lower priority should still be able to receive assistance. Slade & Prinsloo (2014) explore the question "how do we make moral decisions when resources are (increasingly) limited?" by applying the concept of "triage" to education. Triage in medicine is where decisions are taken on how to prioritise the treatment of patients based on the seriousness of their condition and the available resources. The aim is usually to save the greatest number of lives. As with medical triage however, in education it is impossible always to target resources accurately: students cannot simply be categorised as "not needing help", "may pass with additional support" and "destined to fail whatever additional support is provided". Transparency is key to justifying the provision of or exclusion to additional services for individual students (Slade & Prinsloo 2013).

Another issue is one of opportunity cost: the benefits for students of learning analytics may be minimal, or of lower impact than spending on other activities (Slade & Prinsloo 2013). A question for many institutions will be whether they should be investing in learning analytics at all when there may be more pressing needs for funding. The Open University (2014a) makes clear that its responsibility for action based on learning analytics needs to be balanced against available resource. It suggests that many more helpful interventions will be identified than can be funded, and that priority groups or areas of the curriculum will need to be identified for initial targeting.

Ellis (2013) notes that the majority of learning analytics work is directed towards learners who are struggling with course materials or at risk of drop out, with the literature also pointing to potential benefits for excellent students who need further challenges. She says that learning analytics is in danger of ignoring the needs of all those students who fall in the category between failing/struggling and excelling. Ellis suggests that there is not nearly enough detail stored about student aptitudes and behaviours; two students receiving the same grade for

example may have demonstrated very different strengths and weaknesses in achieving it. The continued use of paper-based assessments makes it extremely difficult to analyse assessment data at deep enough levels of granularity such as measuring student achievement against learning outcomes.

19: Anonymisation

Anonymised data is not subject to the DPD or the DPA assuming it does not enable the identification of a living individual (Kay, Korn & Oppenheim 2012). The data and its uses should be assessed and documented appropriately, perhaps through the formal procedure of a Privacy Impact Assessment.

Anonymisation or "de-identification" of data can be achieved through a number of techniques. The robustness of the technique should be assessed on the basis of whether:

» an individual can still be singled out

» records relating to an individual can still be linked, or

» information relating to an individual can be inferred (IWGDPT 2014)

Anonymisation can be difficult however because the size of the datasets can make "re-identification" easier i.e. linking information to an individual (Bollier 2010). As the dataset gets bigger and is derived from a greater number of sources it becomes easier to re-identify individuals (PCAST 2014). It may also be possible for institutions to identify characteristics about us and even define who we are before we have decided that for ourselves (Richards & King 2014). Conversely very small datasets can enable individuals to be singled out. One example given by Kay, Korn & Oppenheim (2012) is that of a student on a small Masters course who borrows a large print version of a book from the library.

At the UK's Open University the Retention of Student Data and Records Policy states that some data will be anonymised and retained for use in management, development and research. It also states that the University may share personal data with third parties and require them to follow the University's policies relating to data retention (Prinsloo & Slade 2013). This is necessary to comply with the legislation.

If the data controller (or anyone else) can somehow identify who the data relates to then it can still be regarded as personal data (Ministry of Justice 2011). Pseudonymised data, where the student's name or identifier is altered consistently across their records is not equivalent to anonymised data and is subject to the same protections as personal data. If an institution makes such data available to other organisations it should ensure that contracts stop them from trying to re-identify individuals. Aggregated data however, where there is a minimal risk of linking it to other data sets, is less of a risk (IWGDPT 2014).

The Information Commissioner (ICO 2014) pragmatically suggests that:

The issue is not about eliminating the risk of re-identification altogether, but whether it can be mitigated so it is no longer significant. Organisations should focus on mitigating the risks to the point where the chance of re-identification is extremely remote. Organisations using anonymised data need to be able to demonstrate that they have carried out [a] robust assessment of the risk of re-identification, and have adopted solutions proportionate to the risk. This may involve a range and combination of technical measures, such as data masking, pseudonymisation, aggregation and banding, as well as legal and organisational safeguards.

Finally, AoIR (2012) raises another issue of potential relevance to learning analytics which institutions may wish to consider: when stripping personally identifiable data from a dataset this might distort the dataset so that it no longer represents what it was intended to represent.

20: Taking data outside the institution

Outsourcing - question	
93. If we outsource the collection (and analysis) of student digital data to companies, do students need to give consent?	Prinsloo 2013

There are various potential scenarios for transferring personal data for learning analytics outside the student's institution which have particular ethical and legal implications:

» Institutions sharing data with each other to refine learning analytics algorithms and metrics

» Institutions using a third-party data hosting or analytics service

» Students taking their data with them when transferring to other institutions

» Employers wishing to view detailed records of job applicants' educational participation

» Requests for data from external agencies e.g. educational authorities or security agencies

Berg (2014) asks what happens when an external agency asks to be provided with historic student activity data. What is the responsibility of the institution if individual users can be identified? The Directive makes provisions for exceptions in the case of situations such as crime prevention or threats to national security.

Meanwhile, we may discover advantages to students in being able to merge datasets with those from other institutions. Should we be obliged ethically to collaborate in this way or are the increased risks to privacy the greater concern? What should students be told about the possibility of their data being transferred outside the institution (Berg 2014)? Pardo & Siemens (2014) suggest that if guarantees are given to students that their data will not be transferred outside the institution they may develop a higher level of trust in the process.

Around half of the participants in Draschler & Greller's (2012) study (of staff) thought anonymisation technologies would be effective in reducing the abuse of data. However 24% did not. Greller & Draschler (2012) list a set of challenges to be overcome in order for data to be shared:

» The lack of a common dataset

» The need for version control and a common reference system to distinguish and point to different datasets

» Methods to anonymise and pre-process data according to privacy and legal protection rights

» A standardised documentation of datasets so that others can make proper use of them

» Data policies (licences) that regulate how users can use and share certain datasets. For instance, the Creative Commons licensing rights could be considered as a standard way to grant permissions to datasets

These issues are compounded by the growing number of proprietary learning analytics products which do not meet the needs of researchers such as openness, accessibility and customisable tools and algorithms (Siemens 2014). The algorithms and metrics may be the key intellectual property in a learning analytics system, of most

interest to researchers but also of most value to the vendors who may therefore be unlikely to welcome opening them up to scrutiny.

Reilly (2013) wonders about the ethical issues of employers potentially tracking the progress of students while they are studying and also speculates that learning analytics could become part of job applications, allowing employers to compare different applicants. In the US the use of student information by third party vendors is permitted without express consent of the student when a university uses educational records for predictive tests or enhancing learning. However, the data must not be released to outsiders and should be destroyed afterwards. The arrangement must be subject to a written agreement between the institution and the vendor. Meanwhile, "Statewide Longitudinal Data Systems" store data about individuals' education from early childhood until they join the workforce; these are of increasing concern to privacy activists in the US. (Sun 2014).

ICO (2014) recommends if using a third party internet-based computing company that the following should be considered:

» Can it confirm in writing that it will only process data in accordance with your instructions and will maintain an appropriate level of security?

» Can it guarantee the reliability and training of its staff, wherever they are based? Do they have any form of professional accreditation?

» What capacity does it have for recovering from a serious technological or procedural failure?

» What are its arrangements and record regarding complaints and redress – does it offer compensation for the loss or corruption of data entrusted to it?

» If it is an established company, how good is its security track record?

» What assurances can it give that data protection standards will be maintained, even if the data is stored in a country with weak, or no, data protection law, or where governmental data interception powers are strong and lacking safeguards?

» Can it send you copies of your information regularly, in an agreed format and structure so that you hold useable copies of vital information at all times?

If the company cannot provide convincing responses to these questions then an alternative should be sought.

Willis & Pistilli (2014) wonder to what extent education should learn from the analytics taking place in the commercial sector and ask if algorithms developed to increase customers should be used for struggling students. One difference in the approaches they point out is likely to be portability. Business intelligence will be held onto closely by a commercial organisation but there are clear advantages for educational institutions in sharing anonymised data with each other.

Subsequent to the inBloom debacle, California has enacted a law which restricts how schoolchildren's data can be used by educational technology companies. They are now unable to use students' text messages, photos, locations or other data relating to them for selling, disclosing or marketing purposes. This updates a key federal law, the Family Educational Rights and Privacy Act, which is now forty years old. In a pledge developed by the Future of Privacy Forum, a Washington-based think tank, fourteen industry players including Microsoft have committed themselves not to use students' data to target them with advertisements or to compile profiles on

individuals - unless authorised by their parents. However, while they will be subject to the new law in California, neither Google nor Apple are currently participating in the Future of Privacy Forum (Singer 2014).

21: Staff awareness and training

Many codes of practice recommend that training is given to staff in ethical and legal issues. At Facebook, subsequent to the Mood experiment debacle training has been introduced into the six week "bootcamp" for new engineers as well as for those carrying out research (Schroepfer 2014). The RESPECT Project (2004) mentions the importance for researchers to critically question assumptions and ensure that outcomes are not predetermined. It is also thought to be important to demonstrate awareness of the limitations of any research and how the values and methods of the researchers may influence the outcomes. This would seem to be directly applicable to the algorithms and processes of learning analytics.

The Open University (2014a) is planning regular communications with staff about learning analytics, ensuring that they understand how it is being carried out, how it aligns to values of the institution, and what the benefits and limitations are. It intends to develop staff skills in the technologies, interpretation and understanding of ethical issues. At Loughborough University, personal tutors are already trained in what they should and should not record about students, and what they should do with sensitive personal information (Sclater 2014b).

22: Principles for a code of practice

Slade & Prinsloo (2013) discuss the potential development of a set of guidelines for learning analytics. They argue that any such document will be based on a limited set of epistemological assumptions and that it would therefore be difficult to produce guidelines that would be applicable in every context. They propose instead some general principles suggesting that institutions could use these to develop their own guidelines. Ethical principles are best applied contextually rather than using a one-size-fits-all approach (AoIR 2012). Kay, Korn & Oppenheim (2012) believe that there are dangers in assuming that ethics are universally applicable across domains and that education is ethically more sensitive than other sectors. Thus they argue principles developed for research, consumer services or social networks may not be directly applicable to learning analytics. Meanwhile, the American Psychological Association APA (2002) draws a distinction between principles and ethical standards. Only the latter, it believes, can be regarded as obligations. Due to rapid technological change, it says, it may be best for a code of practice to concentrate on decision-making processes and questions which can be applied in new contexts.

However, there is no doubt that much valuable thinking has been carried out in other fields which is transferable, and a summary of relevant codes of practice follows.

Chessell (2014) describes an "ethical awareness framework" developed by the UK and Ireland Technical Consultancy Group at IBM requiring organisations to consider:

IBM's *Ethical Awareness Framework*

1. **Context** – for what purpose was the data originally intended and what is it being used for now? How different are the uses?

2. **Consent and choice** – what choices are affected parties given, do they know they are making a choice, do they understand what they are agreeing to, do they have an opportunity to decline and what alternatives are offered?

3. **Reasonable** – is the depth and breadth of the data reasonable for the application it is used for?

4. **Substantiated** – are the data sources appropriate, authoritative, complete and timely?

5. **Owned** – who owns the insight and what is their obligation to act?

6. **Fair** – how equitable are the results of the application to all parties?

7. **Considered** – what are the consequences of the data collection and analyses?

8. **Access** – what access does the data subject have to their data?

9. **Accountable** – how are mistakes and unintended consequences detected and repaired, and can data subjects check the results?

Rayport (2011) proposes four principles:

Rayport's *Code of Ethical Principles for Big Data*

1. **Clarity on practices** – let users know about the data that is being collected about them in real time

2. **Simplicity of settings** – allow users to work out for themselves what level of privacy they want

3. **Privacy by design** – organisations should incorporate privacy protections in everything that they do

4. **Exchange of value** – show users what they get in exchange for sharing their personal information

"Privacy by design" (Cavoukian 2011) encourages organisations to build privacy protection for individuals in all aspects of their operations. She believes that complying with regulatory frameworks is insufficient to protect privacy. There are seven "foundational principles":

Privacy by design *Foundational Principles*

1. **Proactive not reactive; preventative not remedial** – prevent privacy breaches before they happen

2. **Privacy as the default setting** – no action is required by an individual to protect their privacy – it is built in by default

3. **Privacy embedded into design** – of architecture and business systems – not an afterthought – it becomes an essential component of the core functionality of the system

4. **Full functionality** – positive sum not zero-sum – avoid false dichotomies such as security vs privacy – it is possible to have both

5. **End-to-end security** – full lifecycle protection – all data are securely retained and destroyed at the end of the process

6. **Visibility and transparency** – keep it open – all component parts and operations remain visible and transparent to users and providers alike

7. **Respect for user privacy** – keep it user-centric – offer strong privacy defaults, appropriate notice and empowering user-friendly options

Van Rijmenam (2013) suggests four guidelines, three of them almost identical to those of Rayport:

Van Rijmenam's *Guidelines for Big Data Ethics*

1. **Radical transparency** – tell users in real-time what data is being collected about them and how you intend to use it; allow them to understand the data that has been collected and how to delete it

2. **Simplicity by design** – allow users to adjust privacy settings and decide what they want to share

3. **Preparation and data security are key** – define what information you need and what you can do without; develop a crisis strategy in case any data is stolen

4. **Make privacy part of the DNA** – embracing transparency, security and simplicity means that users will embrace your organisation

Richards and King (2014) describe four "normative values" for big data ethics:

Richards and King's *Normative Values for Big Data Ethics*

1. **Privacy** – more than just keeping information secret, this is about defining rules for information flows

2. **Confidentiality** – a kind of privacy based on trust and promises between individuals and other parties

3. **Transparency** – this is about building trust by holding others accountable and is about rebalancing the power being the institutions which hold huge amounts of data on individuals and the secrecy with which they cloak their operations

4. **Identity** – this relates to the fundamental right we have to define who we are, and consequently not to be defined solely by an algorithm or the data held about us

Schwartz (2011) has developed some analytics principles for industry with an intention to "maximize good results and minimize bad ones for individuals whose information is processed." He sidesteps the ethical issue of whether to carry out analytics if they have a negative impact on the individual despite proving beneficial to the majority. However, his principles have direct relevance for individual institutions. He looks at privacy issues in relation to what he considers the four stages of analytics: collection, integration and analysis, decision making, and review and revision.

Schwartz's *Overarching Ethical Standards for Analytics*

1. Comply with legal requirements

2. Assess, beyond legal requirements, whether the process reflects cultural and social norms about acceptable activities

3. Assess the impact on stakeholders' trust in the organisation

4. Use accountable measures and acknowledge that there could be negative as well as positive impacts on individuals; develop policies for information governance and management; designate individuals to oversee data processing operations and decision making

5. Protect the security of information used for analytics

6. Assess whether the analytics involve sensitive areas; if so add safeguards appropriate to the risk

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At the collection stage Schwartz suggests that organisations should avoid gathering certain information and consider legal, cultural and social factors, as well as risks both to themselves and to the individuals. In integration and analysis, he advocates considering the quality of the data and anonymising personal information if appropriate. For Decision making he proposes that the greater impact a decision has on an individual, the more accurate the data should be. Finally, organisation should engage in ongoing review and revision of their analytics processes, ensuring that personal information is relevant and being responsive to unforeseen consequences.

PCAST (2014) presents the Consumer Privacy Bill of Rights, issued by the US Administration in February 2012, comprising a number of obligations on providers:

US Administration's *Consumer Privacy Bill of Rights*

1. **Respect for Context** - Consumers have a right to expect that companies will collect, use, and disclose personal data in ways that are consistent with the context in which consumers provide the data

2. **Focused Collection** - Consumers have a right to reasonable limits on the personal data that companies collect and retain

3. **Security** - Consumers have a right to secure and responsible handling of personal data

4. **Accountability** - Consumers have a right to have personal data handled by companies with appropriate measures in place to assure they adhere to the Consumer Privacy Bill of Rights

There are also "consumer empowerments":

5. **Individual Control** - Consumers have a right to exercise control over what personal data companies collect from them and how they use it

6. **Transparency** - Consumers have a right to easily understandable and accessible information about privacy and security practices

7. **Access and Accuracy** - Consumers have a right to access and correct personal data in usable formats, in a manner that is appropriate to the sensitivity of the data and the risk of adverse consequences to consumers if the data are inaccurate

The UK Statistics Authority (2009) has developed a Code of Practice for Official Statistics which build on the Civil Service "core values":

UK Statistics Authority *Code of Practice for Official Statistics*

1. **Integrity** – putting the public [student in the context of education] interest above organisational, political or personal interests

2. **Honesty** – being truthful and open about the statistics and their interpretation

3. **Objectivity** – using scientific methods to collect statistics and basing statistical advice on rigorous analysis of the evidence

4. **Impartiality** – acting solely according to the merits of the statistical evidence, serving equally well all aspects of the public [student] interest

"Social justice principles" for managing student learning engagement (MSLE) are the theme of a report sponsored by the Australian Government by Nelson and Creagh (2013). While these principles do not relate so strongly to learning analytics as some of the others they reflect similar values of fairness and openness.

Nelson & Creagh's *Social Justice Principles for Managing Student Learning Engagement*

Self-determination - Students participate in programme design, enactment and evaluation, and make informed decisions about their individual participation in the programme.

1. **Rights** - MSLE initiatives should ensure that all students are treated with dignity and respect and have their individual cultural, social and knowledge systems recognised and valued

2. **Access** - Programmes are designed to serve as active and impartial conduits to the resources of the institution (for example, curriculum, learning, academic, social, cultural, support, financial and other resources)

3. **Equity** - Programmes are designed to demystify and decode dominant university cultures, processes, expectations and language for differently prepared cohorts

4. **Participation** - MSLE programs lead to socially inclusive practices and students experience a sense of belonging and connectedness

The Economic and Social Research Council (ESRC - 2012) presents six principles of ethical research which it expects those it funds to adhere to "whenever applicable".

ESRC *Principles of Ethical Research*

1. Research should be designed, reviewed and undertaken to ensure integrity, quality and transparency

2. Research staff and participants must normally be informed fully about the purpose, methods and intended possible uses of the research, what their participation in the research entails and what risks, if any, are involved

3. The confidentiality of information supplied by research participants and the anonymity of respondents must be respected

4. Research participants must take part voluntarily, free from any coercion

5. Harm to research participants and researchers must be avoided in all instances

6. The independence of research must be clear, and any conflicts of interest or partiality must be explicit

The Asilomar Convention for Learning Research in Higher Education (2014) has six principles:

Asilomar Convention for Learning Research in Higher Education Principles

1. **Respect for the rights and dignity of learners** - Data collection, retention, use, and sharing practices must be made transparent to learners, and findings made publicly available, with essential protections for the privacy of individuals. Respect for the rights and dignity of learners requires responsible governance by institutional repositories and users of learner data to ensure security, integrity, and accountability. Researchers and institutions should be especially vigilant with regard to the collection and use of identifiable learner data, including considerations of the appropriate form and degree of consent

2. **Beneficence** - Individuals and organizations conducting learning research have an obligation to maximize possible benefits while minimizing possible harms. In every research endeavour, investigators must consider potential unintended consequences of their inquiry and misuse of research findings. Additionally, the results of research should be made publicly available in the interest of building general knowledge

3. **Justice** - Research practices and policies should enable the use of learning data in the service of providing benefit for all learners. More specifically, research practices and policies should enable the use of learning data in the service of reducing inequalities in learning opportunity and educational attainment

4. **Openness** - Learning and scientific inquiry are public goods essential for well-functioning democracies. Learning and scientific inquiry are sustained through transparent, participatory processes for the scrutiny of claims. Whenever possible, individuals and organizations conducting learning research have an obligation to provide access to data, analytic techniques, and research results in the service of learning improvement and scientific progress

5. **The humanity of learning** - Insight, judgment, and discretion are essential to learning. Digital technologies can enhance, do not replace, and should never be allowed to erode the relationships that make learning a humane enterprise

6. **Continuous consideration** - In a rapidly evolving field there can be no last word on ethical practice. Ethically responsible learner research requires ongoing and broadly inclusive discussion of best practices and comparable standards among researchers, learners, and educational institutions

Kay, Korn and Oppenheim (2012) suggest four principles to be taken into account for educational institutions carrying out analytics:

CETIS *Analytics Principles*

1. **Clarity**, open definition of purpose, scope and boundaries, even if that is broad and in some respects open-ended

2. **Comfort and care**, consideration for both the interests and the feelings of the data subject and vigilance regarding exceptional cases

3. **Choice and consent**, informed individual opportunity to opt-out or opt-in

4. **Consequence and complaint**, recognition that there may be unforeseen consequences and therefore providing mechanisms for redress

Dringus (2012) presents her argument around five "must statements" for learning analytics, which could be regarded as principles:

Dringus' *Must Statements for Learning Analytics*

Effective learning analytics in online courses:

1. MUST develop from the stance of getting the right data and getting the data right. What is meaningful data? If the data trail produces no meaningful evidence of learning or non-learning, or has no impact on changing instructional design or practice then it is ineffective

2. MUST have transparency. What do we see? The data must allow the visualisation of learners' status (e.g. Success, Failure or At-Risk)

3. MUST yield from good algorithms. What are we looking for? Learning analytics can be harmful if naively done by rule e.g. presenting number of postings in a forum is not necessarily good evidence of student participation in learning

4. MUST lead to responsible assessment and effective use of the data trail. What do we do with the data? Again analytics can be harmful if naively carried out by rule e.g. data showing absence is interpreted only as the student being "inactive" or a "no-show". There could be more complex reasons

5. MUST inform process and practice. How do we improve the online experience with good algorithms, the promotion of self-reflection and the development of communities of practice

Pardo and Siemens (2014) provide some principles for learning analytics research (not necessarily practice):

Pardo and Siemens' *Principles for Learning Analytics Research*

1. **Transparency** – all stakeholders should have access to details of what data is being collected, how it is collected, stored and processed, and how the analytics are being carried out

2. **Student control over data** – students need to know what data is collected, when, how and how it has been manipulated; they should be able to correct inaccurate data

3. **Right of access** – a detailed access policy should be developed, specifying the type of operations permitted and the access rights for each type of user

4. **Accountability and assessment** – every aspect of learning analytics should have a person or unit designated as responsible for its proper functioning; the institution should continually evaluate and refine areas such as data collection, security and transparency

The Open University (2014a) has published a Policy on Ethical Use of Student Data for Learning Analytics with eight principles, some of which build on the research of Sharon Slade and Paul Prinsloo.

The Open University's *Policy on Ethical Use of Student Data for Learning Analytics*

1. Learning analytics is an ethical practice that should align with core organisational principles, such as open entry to undergraduate level study

2. The OU has a responsibility to all stakeholders to use and extract meaning from student data for the benefit of students where feasible

3. Students should not be wholly defined by their visible data or our interpretation of that data

4. The purpose and the boundaries regarding the use of learning analytics should be well defined and visible

5. The University is transparent regarding data collection, and will provide students with the opportunity to update their own data and consent agreements at regular intervals

6. Students should be engaged as active agents in the implementation of learning analytics (e.g. informed consent, personalised learning paths, interventions)

7. Modelling and interventions based on analysis of data should be sound and free from bias

8. Adoption of learning analytics within the OU requires broad acceptance of the values and benefits (organisational culture) and the development of appropriate skills across the organisation

It is also important to consider the implications for staff and students of the development and rollout of new learning analytics systems. BCS (2002) has some principles which may be helpful:

British Computer Society's *Code of Good Practice*

1. Be aware of the impact of new or changed business solutions on people's working [or study] lives and deal sensitively with them

2. Avoid solutions that impose unacceptable levels of risk on their physical or mental well-being

3. When analysing current practices, show respect for people at all levels in the organisation and assure them that their views will be taken into account

4. Demonstrate an understanding of the business issues; be persuasive and explain to users and management, in language they understand, the benefits of the changes being introduced, as well as identifying any drawbacks and trade-offs

5. Document the results of your analysis in a style that can be understood by the users and the developers

6. Explain your analysis methods to the users and encourage them to understand the results and verify their correctness

The principles from these varied fields have much in common, reflect fundamental human values as well as suggesting pragmatic solutions, and are almost all potentially relevant to a code of practice for learning analytics. Key concepts which appear frequently in the above ethical codes and guidelines as can be seen from the word cloud below are: transparency, clarity, respect for users and user control. Consent, accountability and access also feature prominently. The challenge now is to build on the work in learning analytics and other domains discussed in this review to create a comprehensive code of practice, providing practical guidance to institutions which wish to understand and tackle the complex ethical and legal issues involved in implementing learning analytics.

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MODELS FOR IMPROVING AND OPTIMIZING ONLINE AND BLENDED LEARNING IN HIGHER EDUCATION
by Jared KEENGWE and Joachim Jack AGAMBA,
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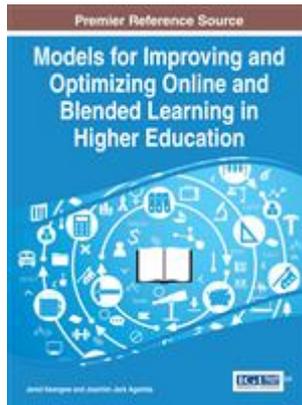
This book has fifteen chapters which focus on process models for online and blended learning, how these models support the teaching and pedagogical approaches as well as learning outcomes, and how these models help faculty to be successful in their teaching process. It emphasizes models and teaching options for delivering and designing courses using online and blended approaches. It also provides the benefits and limitations of Learning Management Systems or Course Management Systems. Faculty and institutions have a big responsibility to evaluate instructional practice related to the needs of different types of learners. It can be also more crucial for them to be able to transit from traditional delivery methods to technology mediated methods. Contributors of this book establish the benefits of instructional technology over traditional methods and argue for a willingness to embrace the challenges involved in the process of optimizing technology tools in blended and online learning environments. This book can be useful not only for faculty to be successful in their teaching process (when engaging learners and leading to desirable outcomes) or academic careers but also for executives and educators, who are interested in planning, design, implementation, and utilization of technology-mediated environments or platforms in consideration of institutional mission, academic program goals or specific instructional and institutional situations.

Chapter 1
Optimizing Blended Teaching and Learning in Brick-and-Mortar Institutions
Joachim Jack Agamba
This chapter highlights factors affecting proper use of technology in education such as faculty resistance to change and the need for alternative forms of support for faculty in the utilization of Course Management Systems (CMS) for blended teaching and learning. According to the author, alternative approaches are required apart from one-size-fits-all approach to assist the faculty for implementing CMS tools on blended and online course in brick-and-mortar institutions of higher education.

Chapter 2
Utilizing Learning Management System (LMS)
Tools to Achieve Differentiated Instruction
Sophia Palahicky
This chapter introduces the use of LMS tools in the view of sample scenarios to achieve differentiated instruction which supports effective teaching and student learning in face-to-face, blended and online learning environments. Author also presents internal and external barriers that prevent teachers from using LMS tools effectively.

Chapter 3
A Rich Environment for Active Learning (REAL): A Model for Online Instruction
Heather Robinson, Alana S. Phillips, Anneliese Sheffield, Michelle Moore

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This chapter proposes a social constructivist instructional model named Rich Environment for Active Learning (REAL), which evolves from constructivist principles to enhance student knowledge construction in online higher education courses. Authors describe four attributes of REAL as a viable model in the context of benefits and opportunities to the students. They also suggest the use of a Learning Management System with REAL model to provide enriching social constructivist learning environment.

Chapter 4
Active Learning Strategies for Online and Blended Learning Environments
Cynthia Cummings, Diane Mason, Kaye Shelton, Katie Baur

This chapter provides a set of teaching and learning methods for faculty to support active learning strategies; such as simulations, role playing, problem-based and project-based learning, case-based learning, web 2.0 tools (wikis, blogs), collaboration methods, peer editing, peer instruction, feedback, building online community, online icebreakers, and flipped classrooms.

Chapter 5
Cultivating Community in Online and Blended Learning Environments
Tracy W. Smith, Emory Maiden III

The authors of this chapter provide experiences of instructors who are working for Appalachian State University, USA. This chapter presents the cases of three instructors to provide tools and methods for promoting social, cognitive and teaching presence in online course environments. This chapter also highlights the challenges of faculty about online instructions.

Chapter 6
Serving Nontraditional Students: Meeting
Needs through an Online Writing Program
Dianna L. Newman, Meghan Morris Deyoe, David Seelow

This chapter presents the effectiveness of multimedia supported online writing tutorials developed for nontraditional students in higher education.

The tutorials are five web-based modules on Moodle platform. Multiple external specialists reviewed the modules in terms of content and instructional design. Before the pilot application of these tutorials, an online survey about learning style, writing efficacy, and technology efficacy of modules were conducted with students. The findings of this study support the investigation of learner characteristics as a part of module development or curriculum material development.

Chapter 7
Blended for Student Engagement and Retention:
The Case of Cinema and Visual Culture and Healthy Lifestyle Studies
Ishmael I. Munene, Flower Darby, John Doherty

This chapter examines the literature on blended learning and then presents an analysis of two implementations of blended courses at Northern Arizona University (NAU). This chapter highlights the benefits of advanced technology in terms of pedagogical approach, course structure, and redesign process of courses in traditional and online classes by the way of two exemplary courses. According to authors, blended learning courses need institution and faculty support, student engagement to provide blended learning opportunities.

Chapter 8
Student Outcomes and Retention in Online Academic and Training Programs
R. S. Hubbard

This chapter presents a brief background about online education in such issues; student retention, outcomes of online education, professional development and problems associated with online education. Then a set of recommendations are elaborated for meeting successful student outcomes and retention in online education. These recommendations focus on self-directedness of online learners, faculty's role in keeping students on track, taking specific steps to increase social presence, the use of team management tools, supporting online faculty and using a learning management system.

Chapter 9
Blending in the Humanities: Course Model and Assessment Results
Astrid Klocke, Danielle Hedegard
This chapter presents a course in Cinema Studies from Northern Arizona University (NAU) which was redesigned as a blended course for two programs. After blended version, student enrollment has increased continually by over 1000% in two years. The signature assignments with standard rubrics; one for assessment and one for grading, used to measure students' ability and learning. Besides, the success of redesigned course was assessed with institutional data and also qualitative data from surveys and reflective essays. The authors offer blended design to increase student learning and faculty teaching.

Chapter 10
Using Instructional Design Goals to
Appropriately Classify Instructional Design Models
Shani Salifu
This chapter examines different instructional design models under an assertion declared by Gustafson and Branch (2007) which built around the ADDIE (Analyze, Design, Develop, Implementation, and Evaluate) principles. Firstly, authors underline the importance of choosing an appropriate instructional design model based on the match between the design situation (classroom, product, and system) assumptions and model characteristics. Then, the selected characteristics which are used to classify instructional design models are introduced, and some key characteristics of Classroom, Product and Systems design models are discussed as an example for each of them.

Chapter 11
A Model for Improving Online
Collaborative Learning through Machine Learning
E. Muuro Maina, Peter W. Wagacha, Robert O. Oboko
This chapter proposes a model which integrates Weka clustering algorithms into Moodle platform to improve online collaborative learning. The model uses collaboration competence levels (clusters) of students as high, medium, and low to apply machine learning algorithms such as clustering algorithm. Authors also create an interface in Moodle to provide learners an immediate feedback that allows the instructor to send a SMS or an email either to entire cluster or to a single student.

Chapter 12
Blogs in Teacher Education: Knowledge Sharing
Among Pre-Service Teachers on a Group Course Blog
Peggy Semingson
This chapter presents a case study to examine asynchronous learning tools such as blogging to foster blended learning in a face to face course.

This study also looks three types of elements (teacher presence, social presence, and cognitive presence) included Community of Inquiry Framework (Garrison and Arbaugh, 2007) which can be used to design computer mediated learning to support blended learning. Blog data were gathered from undergraduate students of traditional preservice

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course by semi-structured instructor-designed prompts and additional readings. Students had guidelines and a simple rubric for their blog assignments. The author examines and discusses teacher presence, social presence, and cognitive presence in this course related to students' blog posts and comments with scholarly literature.

Chapter 13
Using Technology to Enhance Teacher Preparation Field Experiences
Ursula Thomas

This chapter highlights the role of field experiences as well as benefits and challenges in teacher education. Field experiences types such as professional development schools, service learning, alternative placements, laboratory experiences, studying abroad, and paid field experiences, technology enhanced field experiences, paired filed placements are introduced briefly. And then an online learning management system named Desire 2 Learn was used for managing field experiences and gathering data for program assessment and accreditation in a teacher education program.

Chapter 14
Blended Learning and Digital Curation: A Learning Design Sequence
Nathaniel Ostashewski, Romana Martin, Andrew Brennan

This chapter provides an integration of digital curation activities into a blended higher education course. According to this chapter, digital curation activities provide a method to prepare students for lecturers to support critical analysis skill development and also provide a roadmap for lecturers who want to engage students in pre-lecture, flipped, or blended learning activities. The authors firstly present challenges and benefits of engaging students in digital curation activities. Then they represent the blended learning sequence in the context of a third year business education course in an Australian university.

Chapter 15
Learning through Web-Based Authoring Tools
Tony Lee, Doo Hun Lim

This chapter introduces the role of web-based authoring tools from the learners' and faculty's perspective in learning environments. It also highlights four different generational learners (traditionalist, baby boomers, and generation X, generation Y) and their values, preferred leadership styles, learning and communication styles. Then the impact of web-based authoring tools in online learning has discussed in the context of different characteristics of the four generations.

CONCLUDING REMARKS

This is a book which introduces process models for improving and optimizing online and blended learning in higher education. According to book features of these models need to be firstly based on learning outcomes but also faculty and institutional goals, specific instructional and institutional situations and contextual realities.

In this context, Chapter 6, Chapter 8, and Chapter 12 focus on learning outcomes, Chapter 2, Chapter 9, and Chapter 15 present contextual reflections, Chapter 1, Chapter 10 and Chapter 14 guides the choice of instructional design situations,

Chapter 4, Chapter 5, and Chapter 7 provide guidelines for faculty to develop learning strategies for online or blended environments, Chapter 3, Chapter 11, and Chapter 13 present a roadmap for engaging new models to improve online and blended learning. This book can be beneficial primarily for faculty and educators to optimize technology tools as well as alternative instructional models in online and blended learning environments.

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Overall, this book can be a resource for administrators and educators who are interested in critical needs of different types of learners such as lifelong learners, non-traditional learners or disadvantageous groups (such as women who have to look after their babies or have to stay at home, people with disabilities, non-working people, part-time workers, people in rural areas etc.) who want to engage traditional learning environments.

BIODATA and CONTACT ADDRESSES of the REVIEWER

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HANDBOOK OF
MOBILE LEARNING

Edited by
Zane L. BERGE and Lin Y. MUILENBURG

Reviewed by Ugur DEMIRAY
UDEEEWANA

This handbook provides a comprehensive compendium of research in all aspects of mobile learning, one of the most significant ongoing global developments in the entire field of education. Rather than focus on specific technologies, expert authors discuss how best to utilize technology in the service of improving teaching and learning.

For more than a decade, researchers and practitioners have been exploring this area of study as the growing popularity of smartphones, tablets, and other such devices- as well as the increasingly sophisticated applications they use- has allowed educators to accommodate and support an increasingly mobile society. This handbook provides the first authoritative account of the theory and research that underlies mobile learning, while also exemplifying models of current and future practice. Four main partsare placed in the book In summary, parts and chapters are concening a different aspect of M Learning world.

Part I
Foundations and Future

A Historical Overview of M-Learning: Toward Learner-Centered Education
Helen Crompton

Through the study of recent histories, this chapter provides a historical view of the field of electronic learning. The chapter begins by explicating the philosophical, pedagogical, and conceptual underpinnings regarding learning, particularly toward learner-centered pedagogies. This is followed by a discussion of the technology, covering the evolution of

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the hardware/software, its adoption into society, and how these technological advancements have led to today's new affordances for learning.

M-Learning as a Subfield of Open and Distance Education
William C. Diehl

The use of mobile devices for educational purposes is increasing, and m-learning has the potential to revolutionize the way that people learn, but the use of technology to connect learners with content and with teachers at a distance is not new. Like mobile devices, technologies such as the printing press, radio, and television—and systems such as the postal service—have also increased the opportunities for both planned and spontaneous individual informal learning. This chapter provides historical context, presents m-learning as a subfield of distance education,

A Summary and Critique of M-Learning Research and Practice
Thomas Cochrane

This chapter overviews a short, recent history and critique of mobilelearning research, indicating the research gaps that future m-learning research needs to fill, and situates the research literature within the context of current mobile-learning practice. Although still a relatively young field of academic research, the first decade of mobile-learning research has established a solid foundation on which to build as we move into a second decade of research that can provide the basis for the development of theoretical frameworks as we reflect upon an increasing body of longitudinal research. Rather than continually reinventing the wheel with a series of short-term case studies, mobile-learning research needs to take a more strategic approach that focuses upon how pedagogy can be reinvented using mobile devices as a catalyst for change.

A Sociocultural Ecological Frame for Mobile Learning
Norbert Pachler, Ben Bachmair, and John Cook

This chapter provides an overview of the sociocultural ecology of mobile Learning developed by the London Mobile Learning Group, an inter - national, interdisciplinary group of researchers. It discusses the main features of the theory, including the notions of the mobile complex, cultural resources, appropriation and user-generated contexts, and the interplay of its constituent parts, namely structures, agency, and cultural practices. The chapter also presents aspects of a mobile-learning project

Mobile Learning: New Approach, New Theory
Helen Crompton

The unique attributes of mobile learning (m-learning) provide a new approach to learning, which requires a new theory. This chapter begins by explicating how m-learning is unique from conventional, tethered electronic learning and traditional learning. This is followed by a summary of criteria for consideration while creating an m-learning theory, with an analysis of the early proposed theoretical models for m-learning.

Framework for Mobile-Learning Integration Into Educational Contexts
Adelina Moura and Ana Amélia Carvalho

The study that was developed analyzed how students integrated mobile phones as a mediation tool in learning activities. The results obtained show that the students accepted using their own mobile phones and appropriated them to support their school practices.

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Learning and Teaching as Communicative Actions: A Theory for Mobile Education
Scott J. Warren and Jenny S. Wakefield

The goal of this chapter is to introduce learning and teaching as communicative-actions theory, which is here offered as one theoretical support structure for using mobile devices and applications to support learning. This theory expands upon the pragmatic communication and social works of Jürgen Habermas. This chapter
further connects this theory to how social-media tools may be understood to act in the

A Future for M-Learning
Clark N. Quinn

The chapter extends the vision of how mobile devices can support individual development. The chapter concludes by describing a potential, future learning experience.

Seamless Learning:
An International Perspective on Next-Generation Technology-Enhanced Learning

Marcelo Milrad, Lung-Hsiang Wong, Mike Sharples, Gwo-Jen Hwang,
Chee-Kit Looi, and Hiroaki Ogata

This chapter presents and discusses results and reflections based on recent developments and experiences in Europe and in Asia regarding how novel educational design patterns, mobile technologies, and software tools can be combined to enhance learning. The authors propose and recommend possible directions for the design of future educational activities and technological solutions that can support seamless learning. To that end, the chapter discusses how the notion of seamless learning could be used to tackle some of the challenges our educational systems are facing in connection with the introduction of mobile technologies into classrooms settings, innovative educational practices, and sustainability.

Substantive Educational Change is in the Palm of Our Children's Hands
Cathleen A. Norris and Elliot M. Soloway

Mobile technology is bigger than the Internet; the changes mobile technology is bringing have only begun to be felt. In K–12, too, mobile technology will engender the biggest change in pedagogy and curriculum in over 100 years. The key value of m-learning is student empowerment: each student can immediately and directly -without teacher or textbook mediation- connect to the world's store of information, people, events, locations, organizations, data, etc., 24/7. Finally, everyday teachers, for whom teaching is a profession, not a mission, can implement a learn-bydoing pedagogy in their classrooms. This chapter explores this vision in terms of opportunities and challenges.

The Future of Mobile Apps for Teaching and Learning
Ferial Khaddage and Christoph Lattemann

Despite all the capabilities of mobile applications' (apps) integration in most areas and fields, they are yet to have a central role in higher education. The barriers to their adoption are not technical factors but organizational and social. Universities are still not recognizing and rewarding effort put into improving teaching and learning, whether by utilizing or by developing mobile apps for educational purposes.

Major changes to the organization of higher education are needed if mobile app technology is to enter the mainstream.

In the long term, developments in cloud-based computing and offline chrome access to mobile apps will have far-reaching consequences. The main purpose of this chapter is to emphasize the use of apps in higher education. It is intended as a guide to the integration of mobile apps into instruction and how this could shape the future of higher education. A preliminary study on students' use of mobile apps for educational purposes is also described.

Mobile Learning Across Developing and Developed Worlds: Tackling Distance, Digital Divides, Disadvantage, Disenfranchisement
John M. Traxler

Throughout the first decade of m-learning, projects and programmes have attempted to use mobile technologies to address educational disadvantage in the developed world and to address distance in the developing world, in the broadest sense using the technologies to tackle the digital divides that separate learners from learning. This chapter is probably the first to explore such projects and programmes in an integrated fashion and to look at the factors that support and report them.

Part II
Learning and Learner Support

Mobile Learners: Who Are They and Who Will They Become?
Agnes Kukulska-Hulme

It is instructive to identify who has been targeted in mobile-learning initiatives and projects over the years, and to recognize that some groups of learners have attracted less attention than others. The chapter provides an analysis of target learner groups in reported mobile-learning projects and studies, as reflected in ten years of mLearn conference proceedings. The analysis reveals seven key target learner groupings. The author observes that five other possible target groups are largely missing from this

Mindtools for Supporting Mobile-Learning Activities
Gwo-Jen Hwang

While engaging students to learn across multiple contexts or in a particular context, the provision of learning supports is both important and necessary. In this chapter, two types of Mindtool for supporting mobile-learning activities are introduced, concept map-oriented Mindtools and expert system-oriented Mindtools. The former are used to help students organize and visualize their knowledge by linking the new experiences with their prior knowledge, and the latter have been employed to help students identify and differentiate a set of Learning targets based on the common and distinct features of those targets.

Rethinking Scaffolding in Mobile Connectivist Learning Environments
Ozlem Ozan and Mehmet Kesim

This chapter discusses "scaffolding" as it relates to Berge's "learner support" strategies, Siemens' "connectivism" approach, and mobile applications. Mobile applications can be used to address the four basic types of scaffolding: *instructional scaffolding* for learners in a network, *social scaffolding* to create connections and interact in a network, *technical scaffolding* to assist with utilization of tools belonging to the networked society, and *managerial scaffolding* to allow learners to manage their educational process in an informal learning environment by using mobile applications.

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A Mobile Pedagogy Approach for Transforming Learners and Faculty
*Scott Hamm, George Saltsman, Breana Jones, Stephen Baldridge,
and Scott Perkins*

The accelerating use of mobile technologies outside education illustrates great promise for use inside education. This chapter examines the struggle within education to define m-learning and how to situate it within existing theoretical frameworks. Nevertheless, despite these definitional struggles, sufficient evidence exists to demonstrate mlearning's effectiveness in early mobile-learning deployments. Using the campus-wide mobile-learning implementation at Abilene Christian University as a case study, three themes of emerging practice are identified, and suggestions for a more student-centric, truly mobilelearning model are examined.

The Power of the Personal: Discovering the M in M-Learning
Colleen Carmean, Jill L. Frankfort, and Kenneth N. Salim

This chapter moves beyond the definition of m-learning as *everything
learning but with personal electronic devices* and asks the reader to imagine
new possibilities that m-learning provides.
The authors consider the potential of new experiences built into mobility + design and explore a formula for determining *affordance* where mobility is uniquely leveraged for the learning experience. The chapter then shifts from theory to practice and discusses a collaboration between Persistence Plus and University of Washington—Tacoma to explore how mobility and the realtime personalization of learning can enhance the resiliency, persistence, and success of college students.

Social Versus Individual Flow in Mobile Learning
Ah-reum Lee and Hokyoung Ryu

Mobile learning has been built upon the premise that we can transform traditional classroom or computer-based learning activities into a connected form of learning, but few analytic observations on what triggers this collaboration have so far been made. However, *social flow*, which extends Csikszentmihalyi's flow theory, may help partially explain the triggering mechanism of collaborative m-learning. This chapter discusses how the concept of social flow in a collaborative learning space might sketch out what triggers an optimal learning experience in collaboration, and what can be additionally achieved.

The "Reflective Student": The Use of Mobile Devices Through
Seamless Educational Spaces and Authentic Learning Scenarios
Maria Cinque

The chapter presents different mobile-learning projects that were run in a university hospital and a catering school. In both cases, mobile devices were used during on-the-job training. In this context, learning takes place through direct experience, although "controlled," and its effectiveness is based, not simply on the imitation of a practice, but on metacognitive activity and critical reflection. The mobile-learning projects carried out have shown how the use of mobile technologies make explicit the tacit knowledge embodied in training activities and enhance creative and critical skills, making traditional learning less formal. Through this perspective, m-learning overcomes the purely institutional context, becoming a tool to support the learning that takes place—more or less

Museums: Gateways to Mobile Learning
Denise M. Bressler

In museums, learners have always been mobile, moving from exhibit to exhibit. Now, museum learners are still mobile, they just may not be in the museum anymore. Using newer technologies such as geo-referenced data and augmented reality, museums are providing their content, while the mobile learner provides the context.

This chapter will discuss the evolution of mobile-based museum initiatives, showing a progression from spectator culture to participatory culture. As museums find beter ways to engage mobile learners, research is showing improved Learning through active sociocultural engagement. With each new mobile initiative, museums are increasingly becoming the ideal gateway for m-learning.

E-Book Readers and PDAs for Work-Based Learners
Ming Nie, Terese Bird, and Palitha Edirisingha

This chapter addresses m-learning in higher education for work-based learners. The authors focus on e-book readers and PDAs and their use by work-based learners at the University of Leicester, UK. The chapter discusses the impact of the two devices on learners' mobility, learner support, learning time and cost, and learning design.

Part III
Teaching and Instructional Design

M-Learning as a Catalyst for Pedagogical Change
Thomas Cochrane

This chapter argues that m-learning can be used as a catalyst for pedagogical change when founded upon appropriate learning theory and when explicit pedagogical change is designed for. Examples are explored that demonstrate the impact of m-learning upon four different highereducation contexts, and draw out an example framework for

Flipped Classroom Meets Mobile Learning
Aaron J. Sams

The flipped-classroom concept overlaps with m-learning in many aspects. In fact, many of the common criticisms of the flipped classroom can be easily addressed when viewed through the lens of m-learning. By addressing the best use of class time, the role of the teacher in relation to the student, and three common criticisms of the flipped-classroom concept, a teacher can leverage technology to meet the needs of students

Team and Community Building Using Mobile Devices
Jackie Gerstein

This chapter discusses and describes how students' own mobile devices can be used for building community and teamwork within a variety of classroom settings: face-to-face, blended, and virtually.

This discussion has four components: evidence to support the importance of promoting community in the classroom, research that supports the use of studentowned mobile devices for classroom-based community-building, team-building activities using mobile devices, and the results of an end-ofcourse student survey about using mobile devices for community building.

Mobile Teaching and Learning in the Classroom and Online: Case Studies in K–12
Michael M. Grant and Michael K. Barbour

In this chapter, the authors describe two projects to integrate mobile teaching and learning into K–12 schooling. First, the chapter considers the rationale for increased use of mobile devices with today's students, and describes a professional development program to deploy iPads to classroom teachers.

Next, the authors discuss the growth of K–12 online learning and describe a project for students enrolled in an online Advanced Placement course that was delivered through a mobile-learning content-management system. Last, the chapter discusses some of the lessons learned from these pilot projects and some of the promise and

Using Mobile Technology to Enhance Teaching
Andrew M. O'Loughlin, Siew Mee Barton, and Leanne Ngo

This is a study of mobile technology that reflects five lecturers'
experiences of using an iPad in order to support classroom teaching. The study has been conducted over an 18-month period, from December 2010 to June 2012. This chapter identifies an important gap in both the literature and practice, as little research has been conducted into the lecturer's use of mobile technologies in the classroom. The chapter concludes by presenting seven principles for successfully managing the introduction of mobile technology into an organization.

Teachers' Tools: Designing Customizable Applications for M-Learning Activities
Sara Price, Paul Davies, and William Farr

Mobile technologies are potentially important tools for teaching and learning, but their successful integration into educational contexts is currently limited. Teachers' beliefs play a crucial role in the adoption of new technologies and teaching approaches. Based on the design and development of a customizable smartphone application for supporting geospatial approaches to science teaching, this chapter explores how a participatory design approach and the end product play a role in belief change around smartphone technologies and geospatial science concepts. Issues around the design process, challenges for implementing customizable

iPad Human Interface Guidelines for M-Learning
Sabrina Huber and Martin Ebner

This chapter discusses whether and to what extent the development of iPad/iPhone apps for learning and teaching, following the Human Interface Guidelines, really improves individual learning and teaching success. There is a strong relationship between good interface design and the ease-of-use of learning apps. Through careful user observations of students' and teachers' needs, the authors provide a first guideline of how

Mobile Assessment: State of the Art
Stavros A. Nikou and Anastasios A. Economides

This chapter presents the state of the art on computer-assisted assessment the relevant world literature regarding mobile devices-based assessment. It describes the progress made in the field of mobile assessment (massessment), explaining current practices and addressing different aspects associated with design and implementation issues, as well as the affordances and constraints of this emerging field.

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mMOOC Design: Ubiquitous, Open Learning in the Cloud
Inge de Waard

In the mMOOC-design chapter, an overview is given of what a Massive Open Online Course (MOOC) is and how it can be optimized for mobile-device delivery and interaction.

The chapter starts with an overview of contemporary, educational challenges in this Knowledge Age, after which the mMOOC design is described. The mMOOC design combines characteristics and strengths of both m-learning and the MOOC format. By using emerging technologies (selecting mobile social media, enabled mobile multimedia) and stimulating content dialogue and self-regulated learning, the course design allows learning to take place in the cloud and be directed by the learners.

Part IV
Policies, Administration, and Management

Becoming a Mobile Insititution
George Baroudi and Nancy Marksbury

This chapter is a case study reporting on one university implementation of mobile-device adoption in a 1:1, device-to-student initiative. Twelve thousand iPads were distributed to students, faculty, and staff, one of the largest deployments worldwide. From a change-management perspective, the authors describe the technological and sociocultural challenges other enterprises are likely to face in a wide-scale deployment. Cultural observations with respect to patterns of technology adoption among various constituents are considered. Suggestions for using these observations to design strategies and solutions are discussed.

A Framework for Implementing Mobile Technology
Ryan M. Seilhamer, Baiyun Chen, and Amy B. Sugar
This chapter presents the experiences and lessons learned in developing and utilizing a mobile implementation framework at the University of Central Florida. Data gathered from the pilot research guided the stakeholders to facilitate the marketing, training, and support systems for implementation of this mobile technology at a very large university. The authors share a case study of planning, pilot testing, and release of the Mobile Learn product, and their lessons learned shed light on technology-innovation implementation, especially mobile-technology implementation, for other higher-education institutions.

Toward a Holistic Framework for Ethical Mobile Learning
Laurel E. Dyson, Trish Andrews, Robyn Smyth, and Ruth Wallace

As more universities, colleges, and schools adopt m-learning, concerns have been voiced regarding the emergence of unethical behavior. This paper examines a range of ethical issues and analyzes the reasons for them. A framework for an ethical approach to m-learning is put forward, in which harm minimization is balanced with both the need to prepare students for living in a mobile world and the benefits of an approach to learning that has advantages for students from diverse backgrounds. A case is made for the adoption of an ethic of responsibility by educators,

Copyright and Fair Use in M-Learning
Patricia Aufderheide

This chapter provides a basic grounding material for creators, students, and teachers on copyright and fair use for m-learning in a U.S. environment. Elements of this background

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are also useful to international creators. It summarizes the basic premise of U.S. copyright policy, which is not to protect copyright holders but to encourage the ever-expanding pool of culture; how this policy works in practice, including the crucial right of fair use; features that keep people from employing fair use; the utility of community-based codes of best practices in fair use; and an application of that experience to the m-learning environment.

Accessibility in M-Learning: Ensuring Equal Access
Jodi B. Roberts

A shift is occurring in distance education in which learning can ocur anytime and practically anywhere a learner and/or instructor has an Internet connection. M-learning has the ability to reach populations of learners who might not otherwise have access to educational opportunities. This chapter is broken into three sections: (a) accessibility laws, (b) accessibility and universal design principles, and (c) accessible m-learning recommendations. Education administrators and faculty who oversee, develop, and deliver materials for use with mobile Technologies can use the information to begin the proactive discussion of accessibility and m-learning, in order to be in compliance with federal mandates.

The Role of Academic Libraries in the Development and Support of Mobile-Learning Environments
Rachel Wexelbaum and Plamen Miltenoff

Academic librarians play a role in the development and support of m-learning resources and services in higher education. As mobile devices become ubiquitous, and as information becomes easier to acquire through search engines on such devices, librarians must reconsider their resources and services to become an integral part of the mobile-learning environment.

This chapter will address the history of academic library resources and services designed for m-learning environments, attitudes that academic librarians have toward technology that influences their work, and the need for stakeholders in m-learning adoption to include academic librarians in the development and implementation process.

Mobile-Learning Strategies for K–12 Professional Development
Dustin C. Summey

This chapter draws connections between professional development and the use of mobile technologies by teachers, teacher leaders, and administrative leadership. The chapter begins by examining the characteristics of effective professional-development initiatives and continues with a survey of professional-growth models and delivery formats.

Throughout the discussion, mobile-learning strategies are described that complement and enhance all aspects of Professional development in the K–12 environment, with the ultimate goal of making a positive impact on student learning. The chapter concludes with an overview of common problems encountered when integrating mobile devices into teaching and learning.

An Exploration of Mobile Learning to Enhance Student Performance in High-School Mathematics
Vani Kalloo and Permanand Mohan

This chapter discusses the exploration of m-learning for assisting highschool students in improving their mathematics skills. A study was conducted to determine if there were

benefits to using m-learning for learning mathematics. At the end of the study, most of the students were able to improve their performance after using m-learning for three weeks. Therefore, it was determined that the results revealed that this method of learning has presented to be beneficial and does warrant more research in the future.

Becoming a Digital Nomad: Transforming Education Through Mobile Devices
Sharon Stoerger

The research suggests that the use of mobile devices is becoming more widespread. Millions of Americans own and use devices such as smartphones and tablets, and these numbers are on the rise. Because they are easy to transport in a pocket or a purse, individuals have made the use of their mobile device part of their daily routine.

When coupled with education, mobile devices enable ubiquitous learning opportunities that extend beyond the four walls of the classroom. The purpose of this chapter is to examine the concept of learning via mobile devices and its

Mobile-Medicine Praxis
Richard Brandt and Rich Rice

Telemedicine is an emerging field of study and a medical protocol. Today, in rural areas especially, medical praxis is relatively less reliant on medical care from physicians in the nearest metropolis; instead, advances in communication technologies and creative health care providers are facilitating high-quality health care delivery at a distance. Mobile medicine, in particular, is an effort to leverage inexpensive, ubiquitous mobile technologies in the practice of teledermatology. In the case study discussed, peer-to-peer collaborative consultation has been redefined to include the patient from the bedside. The implications for rural healthcare

A Mobile Knowledge Management System for Military Education
Ioana A. Staˇnescu and Antoniu S¸tefan

This chapter addresses the challenges of military education and presents a mobile knowledge management system developed by Advanced Technology Systems and implemented within the Advanced Distributed Learning Partnership Lab, established at the Carol I National Defence University in Bucharest. This research explores the development challenges and describes the core functionalities of this system, which aims to enable and enhance accessibility, user-friendliness, and adaptation of knowledge capture, storage, and acquisition in the mobile arena.

M-Learning During Emergencies, Disasters, and Catastrophes: An Australian Story
Julie A. Willems

In emergencies, disasters, and catastrophes, the saving of lives becomes paramount. Often, the only opportunity to communicate vital information in formal (official) or informal ("backchannel") ways and/or to participate in formal or informal training or learning in the field is via portable mobile devices and, more recently, wireless, Internet-enabled mobile devices (smartphones) and social-network connections. The mlearning that takes place via these portable technologies under such conditions can provide learning opportunities for the various stakeholder groups involved that are "just enough, just in time, just for me"
(Rosenberg, 2001).

Improving Students' Modern Language Speaking Skills Through Mobile Learning
Harry Grover Tuttle

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Through the use of the mobile-learning tool of smartphones, modernlanguage students can improve their spontaneous speaking, which is a key component of the American Council on the Teaching of Foreign Languages' communication learning goal. Furthermore, with m-learning, the students can talk about up-to-moment, real-world situations (culture) in the target language. The author identifies many different mobileassisted language learning activities for student speaking, speaking about culture, and assessing speaking.

How Mobile Learning Facilitates Student Engagement:
A Case Study from the Teaching of Spanish
Elizabeth A. Beckmann and M. Daniel Martìn

This chapter explores the concept that teaching strategies that encourage, incorporate, or require the use of mobile-learning devices can lead to improved learning outcomes. Using evidence primarily from a case study at the Australian National University, the authors explain why and how student-centered teaching supports, and indeed requires, increasing use of mobile technologies. Six years of innovative undergraduate teaching of Spanish has shown that facilitating m-learning allows teachers to maximize students' exposure to, and engagement with, language resources, as both listeners and speakers. A major outcome has been a level of sophistication in students' demonstrated language capabilities much greater than normally expected at this level, as evidenced in their creative production of "radio programs" and other podcast material for assessment.

Architecture of a Device-Independent Collaborative Language Learning Game
Andreas Christ, Patrick Meyrueis, and Razia Sultana

M-learning covers a wide range of possibilities opened up by the convergence of new mobile technologies, wireless-communication structure, and distance-learning development. Language acquisition is one of the most important sectors of m-learning. In this chapter, a software architecture has been proposed as a tool that will support adult learners to learn a new language by providing a chance to practice the desired language very often, without requiring a lot of time, and the learners will be able to use the tool in their own existing devices, such as a mobile phone.

An International Perspective on Mobile Learning
Diana J. Muir

When considering m-learning in the international arena, the definition of m-learning takes on broader meaning. Developed countries have advantages such as infrastructure, connectivity, and technology, which make m-learning readily available. In former communist and developing countries, cost, connectivity, availability of mobile devices, bandwidth, and technology-transfer restrictions become major issues (Nation Master, 2012). All can be overcome if a few adjustments in curriculum development and delivery method are made. Local culture, needs, and resources must be considered, language barriers can be overcome, and cost can be mediated. All is possible with an understanding of new technology and methodology.

M-Powering the Poor Through Mobile Learning
Sheila Jagannathan

One of the most interesting developments of the past few years is the rapid spread of mobile phones throughout the developing world. Even the poorest farmer or slum dweller is now able to communicate, receive information, and get connected to the larger world. With three-quarters of the world's population living within the range of a cell-phone tower, the opportunity to benefit from mobile applications to facilitate "anytime, anywhere" learning, especially outside formal educational systems, is immense. This chapter discusses the opportunities for innovative uses of m-learning (blended with social media, crowdsourcing, and geospatial tools) to achieve mobile transformation (m-transformation) around the world, and illustrates the important role pedagogical techniques play in making this happen.

Acceptance of Tablet Devices for Learning and Teaching in Institutions of Higher Learning: The Malaysian Perspective
Zoraini Wati Abas and Raja Maznah Raja Hussain

The chapter provides a Malaysian perspective of using tablet devices for learning and teaching in universities. The study determined the current use of tablet devices among academicians and their opinions on introducing tablet devices in the university. Based on 44 responses from 17 institutions, iPads were the most common device purchased. The most common reason for purchasing was to experiment with new technology and to have a mobile device. These were mainly used to gain information and e-mail. Less than half of the respondents used tablets for teaching. Most agreed that students should own tablets based on special purchasing

Teachers as Learners: Concerns and Perceptions
About Using Cell Phones in South African Rural Communities
Mpine Makoe

The purpose of this study is to look at how practicing teacher-education students who live and work in rural South Africa perceive the use of cell phones in enhancing interaction in teaching and learning. The Concerns- Based Adoption Model is used to provide a framework for understanding stages of change that teachers have to go through in considering using cell phones for education. Although a majority of teachers reported that they personally own or have access to a cell phone, they have never thought of using it in their classrooms.

From Mxit to Dr Math
Adele Botha and Laurie Butgereit

This chapter tells the story of the design and development of a sustained online math tutoring service for learners in South Africa from 2007 to 2011. The focus is on what was learned in adapting a mobile instant-chat service to cope with the challenges of tutoring mathematics through technology that does not allow for math symbols or graphics; on an instant-chat system that is predominantly used for socializing; with a
technology that is banned in most schools; through volunteers that are at distributed locations to deliver a service that would be free to the end

Mobile Learning Games for Low-Income Children in India: Lessons from 2004–2009
Matthew Kam

The cell phone's ubiquity in developing countries has made it widely hyped as a highly appropriate e-learning device in these regions. However, the evidence base remains scant. This chapter summarizes 5 years of research on designing and evaluating mobile-learning games with low-income children in the urban slums and villages in India, based on research that I carried out when I was at the University of California, Berkeley, and

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Carnegie Mellon University. The chapter next reports that children experienced significant post-test gains associated with the mobile-learning games designed by my research team. Furthermore, even in the absence of supervision from adults, rural children were expected to voluntarily cover nearly one-third of the vocabulary that they should acquire under ideal "industrialized country" conditions.

As a result, in the book isplaced really widened subject different aspect of the m-learning. Book is very useful for researcher and studying on m-learning. The subjects are helpful and provide to openning to the new educational thinking discussiıns.

Zane L. BERGE is Professor of Education at the University of Maryland, Baltimore County. Zane BERGE is Professor and former Director of the Training Systems graduate programs at the UMBC Campus, University of Maryland System, USA. He teaches graduate courses involving training in the workplace and distance education. Prior to UMBC, Dr. Berge was founder and director of the Center for Teaching and Technology, Academic Computer Center, Georgetown University, Washington DC, USA. It was there that he first combined his background in business with educational technology to work in the areas of online journals, moderated online discussion lists, and online education and training. Berge's publications include work as a primary author, editor, or presenter of 10 books and over 200 book chapters, articles, conference presentations and invited speeches worldwide.

Lin Y. MUILENBURG is Assistant Professor of Educational Studies at St. Mary's College of Maryland. Dr. Lin Muilenburg, Associate Professor of Educational Studies at St. Mary's College of Maryland. Dr. Muilenburg: Her early career began as a secondary biology, chemistry, and math teacher, but I've had the good fortune to experience a great deal of variety in my work life due to nearly a dozen relocations as a result of my spouse being an active duty military member. After earning an M.A. in Instructional Systems Development (ISD) at University of Maryland Baltimore County (UMBC), her focus turned to adult training and development and online learning. I coordinated the ISD Training Systems Program at UMBC and was an adjunct instructor there. Subsequently she pursued a Ph.D. in Instructional Design and Development at the University of South Alabama while she taught online for UMBC and worked as an ISD consultant. Relocation number eight changed her career trajectory in an unexpected and interesting way. While researching public schools to meet her own children's academic needs, she discovered independent study charter schools. I was sold on the concept of offering totally individualized instruction targeted to a student's needs in each content area, and got a teaching position at one. This experience truly changed her educational philosophy and convinced me that personalized education really is possible if the right structures and attitudes are in place to support it.

Subsequently, she worked in a large school district conducting data analysis and job-embedded staff development to help teachers meet the needs of underperforming students. She is currently an Associate Professor in the Department of Educational Studies at St. Mary's College of Maryland teaching instructional technology and several other courses such as math and science methods and classroom management. My work focuses on transforming teacher practice by exploring new educational possibilities using technology tool.

REVOLUTIONIZING MODERN EDUCATION THROUGH MEANINGFUL E-LEARNING IMPLEMENTATION

**Edited Badrul Huda KHAN (McWeadon Education, USA)
ISBN13: 9781522504665|ISBN10: 1522504664|EISBN13: 9781522504672|DOI: 10.4018/978-1-5225-0466-5
June, 2016, Copyright: © 2016, pp. 341**

Reviewed by Ugur DEMIRAY
Reviewed by Ugur DEMIRAY, UDEEEWANA

It is not enough for an instructor to merely present facts to their students; the presentation of information must be made accessible and understandable in the context of the student. As communication technologies become more widely available, traditional educational institutions are no longer the only source of information. What is now necessary is to reconsider what makes for meaningful education and apply those practices to digital natives.

Revolutionizing Modern Education through Meaningful E-Learning Implementation evaluates the means by which online education can be improved and systematically integrated more fluidly into traditional learning settings, with special focus on the ethical, pedagogical, and design aspects of building online courses. This publication aims to elucidate the rewards and follies of online education for educators, administrators, programmers, designers, and students of education.

Topics Covers blended learning environments, distributed online collaborative courses (DOCCS), educational simulations, faculty development, massive open online courses (MOOCs), mobile Learning, mobile learning evaluations, social Media interactions, work-integrated-learning C

With the rapid growth of the Internet and digital technologies, the Web has become a powerful, global, interactive, dynamic, economic, and democratic medium of learning and teaching at a distance. The Internet provides an opportunity to develop learning-on-demand as well as learner-centered instruction and training. There are numerous names for the wide variety of online Learning activities, including Web-Based Learning (WBL), Web-Based Instruction (WBI), Web-Based Training (WBT), Internet-Based Training (IBT), Distributed Learning (DL), Advanced Distributed Learning (ADL), Distance Learning, Online Learning (OL), Mobile Learning (or m-Learning) or Nomadic Learning, Remote Learning, Offsite Learning, a-Learning (anytime, anyplace, anywhere learning), Massive Open Online Course (MOOC), etc.

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In this book, the term *e-learning* is used to represent all open and distributed learning activities. Designing and delivering instruction and training on the Internet requires thoughtful analysis and investigation, combined with an understanding of both the Internet's capabilities and resources and the ways in which instructional design principles can be applied to tap the Internet's potential (Ritchie & Hoffman, 1997). Designing e-learning for open and distributed learning environments is new to many of us. After reflecting on the factors that must be weighed in creating effective open and distributed learning environments for learners worldwide, the following definition of e-learning is used in this book.

E-learning can be viewed as an innovative approach for delivering well-designed, learner-centered, interactive, and facilitated learning environments to anyone, any place, any time by utilizing the attributes and resources of various digital technologies along with other forms of learning materials suited for the open and distributed learning environment.

The above definition of e-learning raises the question of how various attributes of e-learning methods and technologies can be utilized to create learning features appropriate for diverse learners in an open and distributed environment.

This current book seeks to provide readers with a broad understanding of the use of the e-learning framework in open and distributed learning environments and the many dimensions that directly influence their effectiveness as seen through the lens of the framework.

The chapters explore the framework's dimensions: digital pedagogy, administrative models, technological advancements, user-interface design, and usability and many address the issues that have arisen around the use of MOOCs in their various flavors.

Such courses are still in their infancy, and the body of research documenting their effectiveness is still small. In order to better approach the design, development, implementation, and evaluation of MOOCs, research using the e-learning framework for evaluation is presented to aid in the better utilization of the resources offered by this new era of digital learning technology.

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This is an edited book with many internationally-based authors, so the insights presented reflect both richness and diversity. The contributors offer a variety of points of view, presented through the lens of different versions of the e-learning framework, and these opinions may differ from one another on the same issues. Some of the contributors have explicitly used various versions of the framework; some have not. This is not a cook-book; each reader must take what is here and adapt it to their own situations; the variety in the chapters gives some indication of the scope and flexibility possible.

About the Contributors
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EDİTOR BİOGRAPHY

Badrul H. KHAN, Ph.D., is a world-renowned speaker, author, educator and consultant in the field of e-learning and educational technology. Professor Khan has the credit of first coining the phrase Web based instruction and popularizing the concept through his 1997 best-selling Web-Based Instruction book which paved the way for the new field of e-learning. Known as a founder of modern e-learning, Dr. Khan has been honored with many awards and worldwide acclamation throughout his career. In recognition of his unique contribution to the field of e-learning coupled with his services to worldwide e-learning communities, Egyptian E-Learning University Council on August 13, 2012 appointed Dr. Badrul Khan as an honorary distinguished professor of e-learning. Professor Khan is a United States Distance Learning Association (USDLA) 2015 Hall of Fame Inductee.

BIODATA and CONTACT ADDRESSES of the REVIEWER

Ugur DEMIRAY is teaching at the School of Communication Sciences of Anadolu University, Eskisehir, Turkey. His research deals with distance education practices of Anadolu University, Ministry of Education and by other universities in Turkey. His research also focuses on distance education students' communicational gaps with their institution, the profile of distance education students, and the relationship of graduates with the job market in Turkey. He is also interested in improving the ethical behaviors around the world especially by using distance education applications and eLearning. In addition, his studies also focus on scholarly online journalism, especially on DE. He has an extensive experience publishing internationally in peer-reviewed e-journals on distance education

under the patronage of Anadolu University for 15 years, named TOJDE-Turkish Online Journal for Distance Education. He is also an editor, consultant editor, and reviewer for more than 15 international journals which deal with distance education and educational technology. In addition, he has responsibilities on advisory boards and is a referee for conferences, symposiums, and panels. He has co-authored and individually contributed chapters in some Turkish and international books. He has also authored many books on distance education and has published a lot of articles in national and international journals. He is now the Editor-in-Chief of GLOKALde, the official eJournal of UDEEEWANA association.

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A NEW DISTANCE EDUCATION JOURNAL "PJDOL" FROM ALLAMA IQBAL OPEN UNIVERSITY, PAKISTAN

Pakistan journal of Distance & Online Learning (PJDOL)

Reviewed by Ugur DEMIRAY, UDEEEWANA

Welcome Pakistan journal of Distance & Online Learning (PJDOL) to the distance education world, published by Allama Iqbal Open University, Islamabad, Pakistan with 2515-2013 (print ISSN and 2415-2012 (online ISSN.

Pakistan journal of Distance & Online Learning (PJDOL) Pakistan journal of Distance & Online Learning (PJDOL) is a peer-reviewed journal of the Allama Iqbal Open University. It is biannual journal both in printed and online versions.

The journal publishes original papers, review papers, conceptual framework, case studies, empirical research and scholarly material in the fields of open, distance and flexible education.
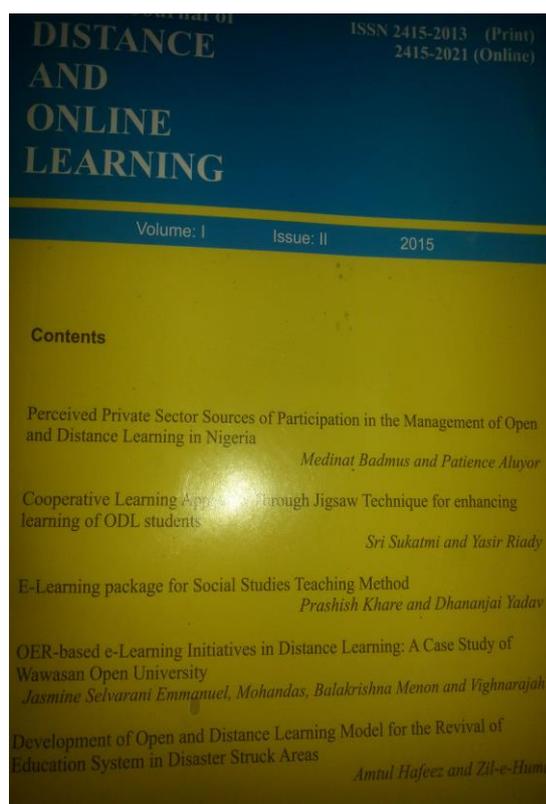
The journal aims to promote research and disseminating information about distance education. PJDOL explores topics about all teaching-learning relationships where the learners are geographically separated, and communication takes place through radio and television, internet, teleconferences and recordings, printed study guides, and multimedia systems such as audio and video broadcasts, teleconferences and internet.

This biannual journal publishes empirical research, case studies and scholarly material in the fields of open, distance and flexible education. The journal covers all aspects of distance education, non-formal education, adult education, online learning, e-learning, m-Learning, u-learning distributed learning, asynchronous learning, and blended learning.

The Editorial Board for the journal invites researchers, scholars and practitioners of distance and online education to contribute articles. For more information, visit http://pjdol.aiou.edu.pk

EDITORIAL

In the past few decades, the learning paradigm shifted from traditional instruction to technology-enhanced learning. Open and Distance Education system acknowledged catering to the needs of those who are not able to go to formal educational institutions. Advances in e-learning, expansion of information & communication technology, globalization, entry of Public & private sector universities are some of the factors contributing to the growth of open and distance learning programs/courses.

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In Pakistan, some universities began offering ODL programs. At present there are two universities and 16 directorates of Distance Education in formal universities offering ODL programs. However, this expansion posed some challenges to the ODL system. These challenges range from instructional design to student support services. Quality assurance and accreditation of distance learning programs and institutions are also a big challenge, as the formal universities offering ODL programs without basic requirements and modalities and other pre-requisites for offering distance and online courses. They deliver courses/programs in unsuitably structured system and through untrained faculty.

The quality of distance education programs remained a matter of concern throughout the world. In Pakistan, quality assurance of higher education programs/institutions was greatly felt due to opening of increased number of private institutions for-profit. Also the public universities funding dried out and movement to curtail government influence in university matters took strength. Higher Education Commission took a number of steps including establishment of National Accreditation Council for Teacher Education (NACTE). The council accredited a number of teacher education program of higher education institutions. Now, the NACTE is in the process of developing standards for accreditation of ODL programs and institutions. The recent emergence and increased institutions and programs of higher education in the country demand development of quality standards by the accrediting body/Higher Education Commission. The NACTE should review the existing guidelines keeping in view the nature and issues of ODL and develop standards accordingly. However, the NACTE must have representatives knowledgeable about ODL. The issues that must be addressed in formulation of standards for accreditation of distance education are:

Mission and objectives of the university, human resources, programs, instructional material, physical resources, learners, student support systems, library, Assessment/examination, research & technology and finance.

All these challenges call for research that will guide practitioners of distance education about planning, organization, development, delivery and assessment of the distance and online courses. The launching of this journal will fill this gap and it will provide a platform for researchers of distance and online education to share their research findings with the rest of the world. I extend my thanks to editorial board and administration of the university for helping in this noble cause.

Chief Editor (PJDOL)
Dr. Shahid Siddiqui, Vice Chancellor, Allama Iqbal Open University, Islamabad, Pakistan

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INTERVIEW

THE ROLE and FUNCTION OF DISTANCE EDUCATION WORLD FROM WOMEN'S PERSPECTIVE:

Interview with Professor Dr. Gila KURTZ, MA program on ICT and Learning at the school of education at the College for Academic Studies, Israel for intWOJDE

Interviewed by Harun SERPIL
intWOJDE, Anadolu University,
Eskisehir, TURKEY

Distance education -DE- has an increasingly powerful impact on the education systems around the world and plays an especially vital role in the education of developing countries. It enables a large number of populations to access educational opportunities which would not be otherwise possible through conventional systems of education. This semi-structured interview aims to benefit from her experiences, feelings, and perceptions about distance learning/education by eliciting her deep insights on the issue. As being a member int.WOJDE team, Harun SERPIL has interviewed with Professor Gila Kurtz. She is currently MA program on ICT and Learning at the school of education at the College for Academic Studies, Israel.

Professor Gila KURTZ is currently MA program on ICT and Learning at the school of education at the College for Academic Studies, Israel. Gila Kurtz is currently Head of MA program... (Also, the last pic is not looking good.)

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Int.WOJDE: Who is Professor Dr. Gila KURTZ

 G. Kurtz: I am a woman, researcher and a teacher. For the last seven years I am Head of MA program on ICT and Learning at the school of education at the College for Academic Studies, Israel. Since 2001, I serve as an Adjunct Professor at the University of Maryland University College (UMUC) Graduate School, at the MA in DE and E-learning Program. I am stil an Editor-in-Chief of The Interdisciplinary Journal of e-Skills and Lifelong Learning: (IJELL), I also love jogging and to dance Zumba.

Int.WOJDE: What are your views about distance education? How does distance education support the education system of your country?

G. Kurtz: I prefer the term online education as the use of web technologies in the educational process can be done any place any time and not just from a distance. We are facing exciting times concerning online education. The rapid proliferation of new technologies and social networks -such as Facebook, WhatsApp, Wiki, Blog, mobile devices, OER, digital games and Augment Reality,- is having a dramatic impact on online education by changing the conventional ways in which students learn and faculty teach. We are just at the beginning and much need to be learnt.

For many decades, the Israeli Open University was leading the development of advanced distance learning methods, and reaching out to the geographical and socioeconomic periphery.

In the last 15 years almost all educational institutions, from k-12 to higher education integrate online learning components within their program either fully online or blended courses. And this is a growing trend.

Int.WOJDE: How has your job experience been?
at your current workplace regarding distance education/learning?

G. Kurtz: In our graduate program, we use the blended learning model in which the students learn at least in part via web technologies with some element of student control over time, place, path, or pace. The face-to-face meetings on campus focus on discussion, collaborative exercises, and discourse by what students learnt before coming to class.

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Int.WOJDE: Why do you think people prefer attending distance education?

G. Kurtz: It is well known that distance learning offers flexibility in terms of time and place. It allows students to fit their learning around their work and personal life. Another benefit, especially for me as an online instructor, involves the luxury of living in Israel while teaching students in the US or any other country all over the globe. No doubt, meeting diverse students (even if from a distance) enriches my online and face-to-face teaching.

Int.WOJDE: What are your suggestions for distance learners?

G. Kurtz: I think that distance learners need to understand that learning from a distance is different from face-to-face. They need to have the ability to learn independently and cope with an autonomous and self-directed study. Moreover, distance learners need to be responsible for their learning process and to be digitally literate. They need to know the benefits of emerging technologies such as social networking in communicating and connecting with the community of other. In particular, with the rapid development of online social networking sites, successful distance learners need to acquire competencies to manage personal information and connections with others, manage diverse interpersonal interactions with others, and generate and share ideas with others

Int.WOJDE: What are your suggestions for distance education instructors?

G. Kurtz: My first suggestion for distance education instructors is to be present and actively involved with their class. Either using communication tools to all students or contact them individually. This gives students the feeling that the instructor cares about their learning and that they not abundant. Another tip is to make student learning paths to them clear as well as setting clear expectations. This will reduce feelings of uncertainty and anxiety of students that might affect their decision to drop out from class.

Int.WOJDE: Which areas of distance education have you been involved so far, and what are some of the lessons you have learned from them?

G. Kurtz: I have been working at the Distance Education field for several years. Starting at 1995 as director of a synchronous e-Learning unit at the Open University of Israel; five years director of Bar-@-Learn Center including responsibility for developing and assimilating new e-Learning methods in academic setting; I serve as member of peer review board of a number of academic journals; I served as a member of Steering Committee of the European Distance and E-Learning Network (EDEN) and a Secretary of The International Board of Standards for Training, performance and Instruction (IBSTPI).

Int.WOJDE: As a woman, what do you think should be done for a more effective distance education of women?

G. Kurtz: A recent report that was published in Int.WOJDE My call is to policy makers to provide educational opportunities for women either face-to-face and/or online. The mode of learning is not relevant rather advancing women through the process of acquiring education and unlocking their potential at the workforce.

Int.WOJDE: You must have had interesting experiences during your work in distance education. Could you please tell us about some of those?

G. Kurtz: In all positions I served I learnt that technology is not the driving factor for a success but the human factor is. Teachers, students and administrators are the leading force behind the implementation of the technology within the educational process.

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(http://www.wojde.org/FileUpload/bs295854/File/03rp_53.pdf) states that gender equality in Europe is yet to be achieved at all types of education. This fact affects women's economic growth and social inclusion.

Int.WOJDE: Have you ever faced gender discrimination at your institution?
G. Kurtz: In my college, we insist on treating men and women equally. Personally, being a woman was not relevant in my career path. I was evaluated only by my academic work, research, and publications.

Int.WOJDE: Our thanks go to Prof. Dr. Gila KURTZ for sharing her invaluable distance education/learning experience as a female professional with the int.WOJDE readers.
Thanks (TODA) to intWOJDE very much!

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Meet SULTANA,
the Taliban's Worst Fear

Nicholas KRISTOF
SundayReview
Op-Ed Columnist
New York Times

Sultana pursued an education from inside her home in Afghanistan after the Taliban threatened to douse her with acid if she went back to school. Because of the danger to her and a photographer if she was visited there, her picture was taken via Skype. Credit Andrew Quilty for The New York Times of all the students preparing to go to college this fall, perhaps none have faced a more hazardous journey than a young woman named Sultana. One measure of the hazard is that I'm not disclosing her last name or hometown for fear that she might be shot.

Sultana lives in the [Taliban] heartland of southern [Afghanistan], and when she was in the fifth grade a delegation visited her home to warn her father to pull her out of school, or else she would have acid flung in her face. Ever since, she has been largely confined to her high-walled family compound — in which she has secretly, and perilously, educated herself.

"I'm unstoppable," Sultana laughs, and it's true: She taught herself English from occasional newspapers or magazines that her brothers brought home, in conjunction with a Pashto-English dictionary that she pretty much inhaled. When her businessman father connected the house to the internet, she was able to vault over her compound walls.

"I surrounded myself with English, all day," she told me by Skype. Today her English is fluent, as good as that of some Afghan interpreters I've used.

Once she had mastered English, Sultana says, she tackled algebra, then geometry and trigonometry, and finally calculus BC. She rises about 5 a.m. and proceeds to devour

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calculus videos from Khan Academy, work out equations, and even read about string theory.

Sultana, now 20, says she leaves her home only about five times a year -each time, she must wear a burqa and be escorted by a close male relative- but online she has been reading books on physics and taking courses on edX and Coursera. I can't independently verify everything Sultana says, but her story generally checks out. After reading a book on astrophysics by Lawrence M. Krauss, a theoretical physicist at Arizona State University, she reached him by Skype, and he says he was blown away when this Afghan elementary school dropout began asking him penetrating questions about astrophysics.

"It was a surreal conversation," Krauss said. "She asked very intelligent questions about dark matter."

Krauss has become one of Sultana's advocates, along with Emily Roberts, an undergraduate at the University of Iowa who signed up for a language program called Conversation Exchange and connected with Sultana.

Sultana at her desk in a photo taken by her family.

By Skype, Emily and Sultana became fast friends, and soon they were chatting daily. Moved by Sultana's seemingly unattainable dream of becoming a physics professor, Emily began exploring what it would take for Sultana to study in the United States.

With Emily's help, Sultana has been accepted by a community college in Iowa, with a commitment by Arizona State University to take her as a transfer student a year later. Emily started a website to raise money for Sultana's university education.

Sultana reminds us that the greatest untapped resource around the globe isn't gold or oil, but the female half of the population. Virginia Woolf wrote that if Shakespeare had had

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an equally talented sister, she never would have been able to flower-and Sultana is Shakespeare's sister. Yet it's also clear that internet connections can sometimes be a game changer.

Sultana's family is wary of her passion for education but surrenders to her determination. "My mom said a lot of mouths will be open, a single girl going to the Christian world," she said. "But I will die if they stop me."

Unfortunately, the United States isn't helping. Last month, the U.S. Embassy in Kabul rejected her application for a student visa. That happens all the time: Brilliant young men and women are accepted by American universities and then denied visas because, under U.S. law, they are seen as immigration risks.

(As a Muslim, Sultana would also be barred by Donald Trump's proposed ban on Muslims. I asked her what she thought of Trump, and all she would say, with quiet dignity, was: "He thinks all Muslims are bad. It's painful.")

Michelle OBAMA has pushed an impressive campaign called [Let Girls Learn](), yet her husband's administration has never seemed as enthusiastic, and America routinely denies visas that would actually let girls learn. The United States spends billions of dollars fighting terrorism by blowing things up; I wish we understood that sometimes the most effective weapon against terrorists isn't a drone but a girl with a book.

The Taliban understand this: That's why their fighters shot Malala Yousafzai in the head. If only we were as clear eyed as the Taliban about the power of girls' education to transform societies.

Sultana now spends her days working on calculus equations, listening to Bon Jovi and doing household chores while listening to the BBC or self-help audiobooks. It also turns out that she is a longtime Times reader and gets my [email newsletter](). She's now working her way through more serious reading: Kant's "Critique of Pure Reason."

Sultana has set up another appointment for a visa, for June 13. It won't be Sultana who is tested but American policy itself. I'll let you know what happens.

Editor's Note:

This news-story written by Op-Ed Columnist, The New York Times Nicholas Kristof in Nicholas at *Kristof's Newsletter*, on JUNE 4, 2016. Retrieved on 06/06/2016 and detailed version is available from The New York Times

His work covers urgent matters of foreign and domestic policy, from global health to women's rights, poverty to politics.

[http://www.nytimes.com/2016/06/05/opinion/sunday/meet-sultana-the-talibans-worst-fear.html?mwrsm=Email]() His work covers urgent matters of foreign and domestic policy, from global health to women's rights, poverty to politics.

WHY THE CERTIFICATE PROGRAM WAS RIGHT FOR ME

Sandra ROSENBLUTH

**Sandra ROSENBLUTH graduated from
the Certificate in Digital Health Communication Program in Summer, 2015.**

Why Were You Interested In Digital Health Communication?

In this day and age, you can't really have a communications degree and not have some expertise in the digital sphere. It's just too important a channel for such a large subset of the U.S. population, and you learn that being able to use these channels for personal use is not the same as using them in a professional capacity. The Digital health Communication program taught me that distinction and how to use technology and the internet to disseminate health information as effectively as possible.

What Led You To The Tufts Program?

I started the certificate program with Mobile Health Design when a classmate convinced me to register with her. Once the class started, I was hooked and it was a pretty easy decision for me to officially become a certificate student and finish the rest -I wanted to do it all, the complete package!

I was already a Tufts Student enrolled in the Friedman School Nutrition Communication program when I learned about Mobile Health Design. The program is excellent, but the Digital Health Communication classes rounded out my interests and gave me direction; I felt that it completed my skill set and made me stand out. I did as much as I could while enrolled at Friedman and easily finished the rest after graduation. I loved that the Tufts program also offered lots of opportunities to apply what you learn in real life settings- I had the opportunity to do this while working on the RecycleHealth campaign as a student. With another student, my final project was to help improve on the RecycleHealth brand and increase its digital reach and visibility by pinpointing the intended audiences, developing targeted messaging and content, identifying potential partners and modes of

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dissemination, and analyzing other successful strategies. This work actually led to my first job post-graduation.

How Have You Been Able To Use What You Have Learned In Your Career?

Probably the most useful skill set to date is how to approach social media. Everything has to be thought through, with a strategy in place. These tools have been really invaluable, and have helped me appropriately tackle a quickly-changing digital world.

Every post I make is made with intent. Every social media platform is judged for strengths and weaknesses and whether it suits my purpose.

I think before the certificate program, it would have been easy to just jump on every social media site with enthusiasm but no plan, and find myself lost and overwhelmed.
What is something that you learned that you were not expecting when you enrolled in the program?

I would say I was not expecting the support I received from Lisa Gualtieri, who directs the program and also teaches several of the classes. I learned the value of having a professor show such interest and investment in what you do, academically, professionally, and personally.

There was really an appreciation for creativity in her classes, with an understanding that the more formal things can be learned. I think that really provides the opportunity for growth, as opposed to the need to conform to a set structure or set of rules.

Source: Retrieved on July 7th, 2016 Available from
sites.tufts.edu/healthcomm/2016/07/07/why-the-certificate-program-was-right-for-me/

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WHAT WOMEN WHO ARE JUST GETTING OUT OF PRISON REALLY NEED

Photo: Courtesy Of Lee Wexler/Images For Innovation.

Vivian NIXON embraces one of the graduates from the College and Community Fellowship. **Vivian Nixon has a simple message when it comes to women just getting out of prison: Don't be ashamed of us.**

Growing up in New York, Nixon dreamed of majoring in theater and eventually making it her career. But behavioral problems in high school knocked her off track. By the time she was a freshman in college, mental health issues, coupled with drug and alcohol abuse, caused her to flunk out after just one year. Nixon's dream of getting an education would be put on hold once more.

This time, as she served three-and-a-half years in prison for falsifying business records and forgery.

While in prison, Nixon connected with the nonprofit College and Community Fellowship (CCF). In 2001, after she was released from Albion Correctional Facility in New York, she earned a Bachelor of Science degree and eventually became an ordained deacon. But overcoming the stigma of a felony conviction has been tough, which is why Nixon, 56, has dedicated her career to helping women like her redefine themselves.

Nixon, now the executive director of CCF, sat down with Refinery29 at the White House's first-ever United State of Women summit in Washington, D.C.

Eventually, I Committed Crimes — Forgery, Cashing BadChecks, Things Like That — And I Ended Up In Prison.
Vivian Nixon, College and Community Fellowship

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Tell us a little bit about your own personal experiences and what brought you to do this work.

"I grew up in a family that really cared about education, a lower-middle-class family. But I had some struggles. I always tested very high in terms of my abilities, but I couldn't concentrate in school, I felt bored. And at that time, it wasn't very popular for families to seek out medical conditions for what they thought were behavior issues. Like if you don't pay attention to school, the solution at that time was to punish you. So, I think that my parents didn't understand that I probably had some type of attention deficit or mental health issue, even as a child.

"By the time I got to high school, even though I was very capable of doing the work -I wasn't attending class. I just became kind of a delinquent, quite frankly. Then, I tried going to college and flunked out the first year. I went through a deep depression...all of that just led me into a very bad place. I ended up working odd jobs here and there, office jobs, but always using substances to make myself feel better.

And eventually, I committed crimes- forgery, cashing bad checks, things like that -and I ended up in prison.

PHOTO: Courtesy of Lee Wexler/Images for Innovation.

"When I got to prison, the thing that really surprised me was that there were women of all ages, starting from 17 all the way to 80. The thing they had in common -no matter what their age, no matter what their ethnicity or background- was that they had very little education. Lack of education was a big theme in prison. I used to have to help read letters to people, help them write letters, help them understand their legal documents.

"You have to work while you're in prison, so I took a job in the adult education school at the prison and I just fell in love with helping women learn, because I saw how it changed their lives. Before I got out of prison, I found out about College and Community Fellowship through a flyer they sent around. It was a new organization at the time and

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they said: 'If you're coming out of prison and you want to get an education, we will help you.'
So, I joined the organization when I got out of prison, because I wanted to go back to college and finish this time, which I did. After I finished college, I came to work with them."

When You Would Talk To Them, You Would Find That Most Of The 'Crimes' That They Committed Were Survival Crimes. Like, 'I Needed To Feed My Kids.'
Vivian Nixon, College And Community Fellowship

In Addition To Lack of Educational Opportunities, What Were Some Of The Other Factors That Had Brought These Women To Prison? Were They Starting On A Level Playing Field?

"No, they never started on a level playing field. They come from communities where, even if they had access to school, they were not high-quality schools. But they also came from backgrounds that were full of domestic violence, substance abuse, and many from homes where their parents were involved in substance abuse...most came from backgrounds of poverty. So, it was like there was nothing for them.

"And when you would talk to them, you would find that most of the 'crimes' that they committed were survival crimes. Like, 'I needed to feed my kids.' And then, some were [there] because of mental health issues. I have severe empathy for women who are locked up for hurting a child or something. Because we look at it from the outside as, 'Oh my god, how could a woman hurt her own baby?' But you know, postpartum depression is real, And if people don't get treated, bad things can happen.
Photo: Courtesy Of Lee Wexler/Images For Innovation.

"There were other women who had defended themselves in domestic violence situations and ended up doing time for hurting someone who had been hurting them repeatedly for years and years. It was just a combination of things that made me want to be in this work."

How Big Is the Female Prison Population
And How Are Women Of Color Disproportionately Affected?

"In general, the entire prison population disparately impacts people of color. One of the biggest reasons for that is for many years, the drug laws were very disparate. For instance, powder cocaine and crack cocaine were treated differently in the courts. Powder cocaine is used mostly by wealthier, white people and crack cocaine, which is sold on the

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streets for very little money, was used in poorer Black communities. So, the prisons were filled with people [arrested] under those laws. I think we're still suffering those impacts.

"But also, there's bias in terms of access to adequate legal representation. So, if you're poor and you don't have money, you get a public defender that's overwhelmed, has a caseload of way too many people and is going to plea-bargain you out. The courts are designed -if you don't have money- to convict you of something. Because the first thing they're going want you to do is plea bargain rather than fight your case, because the courts could never sustain it if every case went to trial. There are a lot of reasons for the disparity."

I Just Want Women To Not Be Ashamed Of Those Of Us Who Have Been Convicted Of Crimes, Because We're Suffering From The Same Problems That Other Women Are Suffering From.

VIVIAN NIXON, COLLEGE AND COMMUNITY FELLOWSHIP

I feel like society very rarely shines a light on people, who are in prison, particularly women who are in prison. The biggest Hollywood portrayal that we have now is *Orange is the New Black.* Are you happy to see people watching a show about female inmates and talking about it?

"This is hard to answer, because [*Orange Is the New Black* creator] Piper [Kerman] is a friend. I like Piper. I think when she wrote that book, she was really trying to uplift the real stories of real women that she met in prison. What the show has turned out to be I don't think was her vision. But that's Hollywood, right?

"On the other hand, it has opened up a conversation and some people are going to look at it and say, 'Hmm, let me find out what the reality is,' and some people are just going to look at it for the entertainment. Either way, I don't think it's a bad thing that the book is out there and that the show is out there...you know, now it's become fiction, because it's not just her book, it's beyond that. I think that the fictionalized portrayal of women in prison can do damage if it's not equated with a real understanding of what's happening to real women and families. Because most women who go to prison are primary caretakers of their children and it impacts their entire families and communities."

Photo: Courtesy of Liz Holliday/College & Community Fellowship.

What Do You Want To See Done In the Immediate Term, The Middle Term, And the Long Term to Help These Women?

"One of the reasons I work on the education issue is because I believe we have to work at both the front end and the back end. I'm working on the back end: These women have already been convicted of crimes, have already done time in prison. I just feel that a college education gives them kind of a way to reinvent themselves. So, they re-identify not as a woman with a conviction, but as a woman who is a college student or a college graduate and they're able to go on with their lives.

"On the front end, I think we need to find other ways to deal with the problems women have socially, other ways of dealing with poverty and addiction and mental illness. If a woman commits a crime, there are so many other ways to really evaluate what the underlying problem is and how we can address that underlying problem. [Like] diversion programs that say, 'Okay, we're not gonna send you to prison, but here's the help you need. And if you get the help you need, you won't have to go to prison.' That gives people an opportunity to make the shift."

you'll finally get to a place where you understand that the journey doesn't have to be smooth, you just have to get where you're going.
VIVIAN NIXON, COLLEGE AND COMMUNITY FELLOWSHIP

What Do You Want Women to Know About Women Who Are Coming Out Of Prison?

"We're just like other women. We suffer the same discrimination, abuse, the glass ceilings. Don't be ashamed of us. I read a lot of women's magazines and it really hurts when you don't see yourself reflected in a magazine that's about women. I remember the first couple of years when I came out of prison; I was reading one of my favorite magazines, *Essence.* I kept looking for a reflection of what was happening to women in the criminal justice system and it just wasn't there. And it hurt, because as a young teenager and as a young woman, I had been so inspired by that magazine. To no longer feel it related to me, for some reason, it really hurt...I just want women to not be ashamed of those of us who have been convicted of crimes because we're suffering from the same problems that other women are suffering from."

When I Was Talking To My Mom About Having To Go To Prison, The First Thing That Came Out Of Her Mouth Was, 'Oh My God, I Hope That You're Still Going To Be Able To Vote.'
VIVIAN NIXON, COLLEGE AND COMMUNITY FELLOWSHIP

Recently, states like Maryland and Virginia have changed their laws to allow felons to vote again.

How Do You Feel About Those Bills and Why Are They Important?

"Oh, it's critically important. My mother was a social activist. She was the head of the NAACP [National Association for the Advancement of Colored People] on Long Island. She's been an activist all my life.

I think that's where I get my passion for activism from. When I got convicted and I was talking to my mom about having to go to prison, the first thing that came out of her mouth was, 'Oh my God, I hope that you're still going to be able to vote.'

Because she always instilled in us how important it was to have that voice. Because our ancestors literally fought and died for that right to vote.
"Thank god in New York State, you do get your right to vote back. When my mother passed away a couple of years after I got out of prison, I was going through her belongings. I found in her wallet her original photo-I.D. card from the day she turned 18. And I treasure it, because it reminds me how important it is to speak your mind, to have a voice in our society, and to be a part of what the solutions that our society needs to make it the place we want to live in."

What Is Your Advice For Young Women?

"Life is not easy. It's hard. There are twists and turns and struggles. And sometimes, you're going to fall and sometimes you're going to get pushed down. But always get back up. Every time you get back up, you're a little smarter and a little stronger. And you'll finally get to a place where you understand that the journey doesn't have to be smooth, you just have to get where you're going."

Editor's note: This interview has been edited for length and clarity.
Source: http://www.refinery29.com/2016/07/115167/female-inmates-education-jobs-for-felons retrieved on July, 18, 2016, written by Kaelyn FORDE, July 14, 2016 10:00 AM.

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From Athabasca University
OPEN. ONLINE. EVERYWHERE

Cathy McDONALD

Cathy McDONALD BPA '16, with her proud parents at Athabasca University's Convocation 2016. [photo credit: Cathy McDonald]

In an economic downturn and the increasingly volatile world of news media, recent Athabasca University graduate, Cathy McDonald, found a way to weather the storm. She embraced it, head-on.

The Calgary-based, former broadcast news reporter and radio promotions personality was able to shift career gears in a flash ― all because she stayed the course when it came to her AU degree pursuit.

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When the going got tough juggling media with coursework, she'd just invoke her parents' words: "diversify your skills."

Starting line

McDonald, 26, graduated in 2009 from SAIT's two-year Radio Television and Broadcast News diploma program. Immediately, she landed a gig in radio at the Rogers Media-owned 660 News in Calgary, working the 4 a.m. weekend shift as a reporter and audio editor. From there, she moved to internships at Harvard Broadcasting's X92.9 and at Aboriginal Peoples Television Network (APTN).

Compelled to acquire more education, in 2010 she registered in the Communications and Media Studies bachelor's program at the University of Calgary. It turned out to be short-lived. After only a few months in, McDonald decided that gaining valuable industry experience was more practical than completing her U of C degree at that time. The lure of broadcast news was still fervent so she put school on hiatus to take a job at Astral media (now Bell Media) for its FM Virgin Radio brand, along with sister stations CJay 92 and AM Classic Country.

McDonald's halcyon days working a Radiothon at Astral Media in Calgary. [photo credit: Cathy McDonald]

While there, she performed a variety of on-air news and traffic announcing, and promotional duties for the company, including providing her personality to charity Radiothons, such as those in support of Kids Cancer Care Foundation. A compassionate person at heart, who likes to serve both in her community and at home, for McDonald, the charity route felt good. It also felt close to home; McDonald's older sister Crystal, whom she considers "near and dear to my heart," has special needs that require her family's constant care.

Balancing act

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Throughout her time in radio, an inner voice kept chirping at McDonald to reconsider finishing her degree. It was around that time she discovered Athabasca University.
She liked its study-on-your-own-time-and-terms philosophy. She realized she wouldn't have to forfeit her paid work. So she transferred her U of C credits over to AU and began the art of balancing broadcast with the books.

Standing By at the news radio chopper in Calgary
[photo credit: Cathy McDonald]

The balance was so perfect she decided to add more weight to the bar — propellers to be exact — to make the juggle more challenging. She took a weekend job as a helicopter news and traffic reporter with a company that outsourced its product to Global News TV and AM 770 radio.

"I was actually working radio Monday to Friday and then did helicopter traffic on the weekends *while* being at AU. It was insane," she attests.

Funding Her Way
Parents, Ron and Gail, were a huge force in helping their daughter keeps her eye on the education prize. "They really wanted me to have more options other than just broadcasting," McDonald says.

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And while for the most part she agreed with them, she was also clear to remind them it was she who had chosen those media jobs both during and in-between school stints which, in effect, made it possible for her to fund her education.

It's a feat of which she's incredibly proud. "I've always paid for school on my own — both of my degrees. It was a big decision on my end to save up money by working all those jobs. It wasn't cheap. It was hard," she explains, noting her parents helped foster her appreciation for financial independence.

Aside from her own financial savvy, McDonald took advantage of AU's exceptional scholarship program, receiving four awards at various junctures to help offset tuition costs. "Athabasca helped immensely because I had student loans. It was a great program to utilize because I don't think a lot of people do — especially when you're paying for school on your own; it's a nice financial help and relief," says McDonald.

Layoff Lessons

While juggling both the airwaves and *airways,* McDonald kept her end-goal in sight which ultimately steadied her when, suddenly, her position at Bell came to an end due to downsizing in the tough market. Although devastated for a minute, she knew more fulfilling and effective opportunities were in store. She was able to regard the layoff as a blessing rather than a setback; her workload was instantly lessened leaving her with just the chopper work and her AU studies.

Not to mention the fact the world of media was becoming increasingly volatile with technology replacing human capital in newsrooms across the country. At this stage, McDonald could envision her <u>Athabasca University</u> Bachelor of Professional Arts degree in the not-too-distant future. *That,* no doubt, would cap off her suite of skills, both academic ones, and those acquired on-the-job.

Athabasca helped immensely because I had student loans. It was a great program to utilize because I don't think a lot of people do — especially when you're paying for school on your own; it's a nice financial help and relief." Ever the glass-half-full personality, looking back she acknowledges the fun times her broadcast sojourn provided.

"I got to do a lot of cool things with my helicopter job while doing Athabasca — some amazingly poignant and life-changing things. I covered the 2013 June floods, grisly crime scenes, shootings, fires, search-and-rescue missions in the mountains."

She even scored a brief stint as a flight attendant with WestJet. At this rate it would seem she was spending more of her time in the air than on the ground.

"I was either up in the skies with WestJet or in the chopper. *And* I was juggling both jobs with AU — I would overnight in Regina or Vancouver or Victoria, and I would do my AU assignments in the evenings." After realizing she had far too much on her plate, and missing her home time spent with her sister and family members, she decided to leave her commercial air gig and jumped at an "on-the-ground" opportunity to work for the Children's Wish Foundation as a development coordinator. Now feeling much closer to her comfort zone, she decided to exit her news chopper job with fond memories of her time spent in the skies. "That was my final break from not doing anything broadcast-related," she says.

Cathy McDonald and older sister Crystal at AU's Convocation 2016.
[photo credit: Cathy McDonald]

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"All-In" at AU

McDonald's parents attest that when it came to their daughter's study life, they witnessed flexibility at its finest with Catherine working her course load "at her own pace. " *I was either up in the skies with WestJet or in the chopper. And I was juggling both jobs with AU-I would overnight in Regina or Vancouver or Victoria, and I would do my AU assignments in the evenings."*

According to her mother, Gail: "Athabasca University gave [Catherine] the confidence and the flexibility and the comfort level of being able to study from any location rather than going to a set [physical] institution. "She notes her daughter's deep-seated determination to chip away at the coursework, all the while creating and staying abreast of her exit strategy, aka her graduation day. "I remember Catherine had Post-It notes in her study [indicating] her short-term goals [required] to achieve her degree," says Gail, adding that one of her goals was to complete 22 courses — something about which she remarked "seemed quite unachievable at the time." But achieve it she did. This past June, she finally reached her goal and walked the stage to accept her Bachelor of Professional Arts (BPA).

Also aiding in her push to the finish line was knowing that unlike many graduates, who find themselves in the throes of a competitive career search, McDonald had already found her niche. Right after she completed her degree from AU last summer, the corporate office of Jameson's Pub — a popular Irish tavern with two locations in Calgary — hired her as a sales and events manager in September. Just 10 months later, shortly before AU's June Convocation, her boss promoted her to Director, Marketing, Sales & Events. It's a job where McDonald can finally marry everything she learned in media, on the ground, in the air, and at AU.

Source: Propelled to lifelong learning July 15, 2016
http://news.athabascau.ca/arts/cathy-mcdonald/

TO WHOM IT MAY CONCERN;
May we publish "Propelled to lifelong learning July 15," Athabasca University graduate, Cathy McDonald's success story with her experience belonging your official permission in intWOJDE, non profit eJournal /www.wojde.org) After browse journal could you give me your decision info please?

Cordially,
Ugur Demiray, professor
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intwojde@gmail.org

Good Day, Mr. Demiray,
Response to your request for publication
    Heidi Staseson [hstaseson@athabascau.ca] 22 July 2016 Friday, 19.31
    cc: John O'Brien [jobrien@athabascau.ca]

Thank you for your interest and reaching out to us with respect to the recent story we are featuring on AU graduate Cathy McDonald. We would be happy to honour your request to publish our story in your journal. Would you kindly email me a copy of the issue when it is published? I'd also be very interested in viewing some of your other stories related to online learning that you have featured. Are there a couple you feel might resonate for us? If you have any further questions, kindly reach out to me at this email address.

Warm regards,

Heidi
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MY SECOND UNIVERSITY:
Anadolu University

Dr. Serpil ALPTEKIN
Anadolu University, Faculty of Open Education
Graduate of the Media and Communication Program

We have just received a letter of appreciation from Dr. Serpil ALPTEKIN, who has just graduated from Anadolu University, Faculty of Open Education, Media and Communication Program. She expresses her great satisfaction with the Open Education system.
We would like to share it with our readers.

After working as a doctor for 24 years, retiring felt like being reborn. Being able to spend time on myself and on my hobbies such as sports, photography, reading, traveling felt like a second spring, especially after my stressful career, which was recently extra stressful due to my administrative responsibilities? Yet, you cannot get enough of it when you are full with the love of reading and learning. During one of my trips through Turkey, my dear friend Göksel ALTINIŞIK excitedly told me about the "second university" opportunity offered by Anadolu University Faculty of Open Education. He himself is both a student in the OE and a professor, and as he knows me well, he knew how much I would enjoy being a student in this program.

Being able to get education again without having to intensively prepare for the central university exam was a tremendous opportunity for me. Browsing through the offered programs took me back in time and reminded me of my youth. I was an honor student at Bornova Anadolu High School. My mom and dad dreamed of me becoming a doctor. But I had always wanted to become a sports journalist during my secondary school years, and this was at a time when women used to be very rare in press, let alone sports journalism. It was caused a big stir when I told my dad in my senior year at high school that I wanted to major in literature instead of science because I wanted to study at the vocational school of journalism. My dad's high blood pressure was parallel to the high tension felt at home. But when I lost my dad in that year, I put my dreams aside and chose Medicine school over my dreams. This is how Anadolu University made those dreams that I had to leave behind a reality. I remembered a retired psychiatrist that I had met years ago in London. She was quite energetic for her age, and she had told me about her second

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university that she was studying in at the time, and the social organizations that she was an active member of, which made me think about the situation in Turkey, the way people fall in a void and aimlessness after they retire. I remember how envious of her I felt listening to her. She told me about how she was a much more informed and mindful student in her second university. Of course, I did not know then that Anadolu University would open the door for this aspiration of mine. I now recall enrolling at the Media and Communication Program of AU and excitedly buying my textbooks when I went back to Izmir.

I experienced the same excitement before the beginning of each semester. The courses really interested me. Reading the textbooks, especially some chapters, was very enjoyable. The suggested books, internet sites, and the new knowledge paved the way for opening new windows in my thinking. Also, the books we had for the courses were worth saving and reading again, which is not normally the case for every textbook. Obviously, as a well-established institution, Anadolu University Faculty of Open Education offers a highly systematic and quality education.

However, regarding the personal transformation created by the university life, I believe distance education still has some negative aspects. Further, I think that especially for undergraduate studies, various face-to-face applications and online assignment presentations are definitely necessary. I was really honored to be invited to the commencement ceremony. It was a real reward for pulling all those nights of cramming before the exams. Visiting the campus and breathing its atmosphere has really impressed me as well. Anadolu University will always have a special place in my life. I am already excited about planning to enroll in a new program. But this time, I want to visit here more often and have a closer communication with the campus. After all, I have not studied all these communication courses for nothing, have I?

Dr. Serpil ALPTEKIN
Anadolu University, Faculty of Open Education
Graduate of the 2015 class in the Media and Communication Program

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