XII Regional Conference ON WOMEN in Latin America and the Caribbean

# Women in the digital economy

## Breaking through the equality threshold

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ECLAC

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REPÚBLICA DOMINICANA

MUJER
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¡Trabajando por la Igualdad y la Equidad!

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# Foreword

On the eve of the twelfth session of the Regional Conference on Women in Latin America and the Caribbean, ECLAC has prepared the document, *Women in the digital economy: Breaking through the equality threshold*, as a contribution to the regional debate. This document systematizes and describes various dimensions that shape the way the region's women participate in the labour market and how they access and use the different elements of the digital economy. It documents experiences, initiatives and policies aimed at improving women's quality of life through information and communications technologies (ICTs). This is a summary of that document.

This is a crucial time, in which governments, businesses and citizens in the region must reflect and take action in order to foster new approaches to development. A new equation must be forged between the State, the market and society to make progress towards an equitable development model based on employment, economic productivity growth, social well-being and environmental sustainability. The milestones that must be attained along this path involve key factors such as education, science and technology, innovation and entrepreneurship, care systems, the role of territories and cultural diversity.

In this connection, ICTs provide essential support across all economic, political, cultural and social activity. As such, they are potential allies in the drive to achieve equality by helping reduce the gender inequities which constitute not only a gender digital gap but also a social divide. If women are to enjoy opportunities in a context of extremely rapid technological development, they must have access to ICTs, although this alone will not suffice.

With this in mind, the document looks at the discussion surrounding structural change and women's participation in the information society and the potential for increasing their autonomy in the framework of the new technology paradigm. It then goes on to map women's labour market status and uses available survey data to review indicators of Internet access and use and thereby measure the gaps between men and women in various social and geographical dimensions.

Women's access to ICTs is constrained by factors that go beyond matters of technological infrastructure and language. That fact that women use ICTs less than men in Latin America and the Caribbean is undoubtedly a direct result of inequality and stereotypes in areas such as education and professional training, employment and access to income.

The document looks at the results of three studies which have explored different areas of the digital economy: the electrical and electronics industry, call centre services and women using ICTs in enterprise. Women's participation in the world of science and knowledge is then discussed, examining the trajectories of women devoted to scientific research in the region.

Public policies on gender equality must take into account the key and interconnected dimensions of economy, well-being and technology if they are to be capable of providing an ambitious and innovative response to the challenges of today's society. The core argument in the reflection on ICTs and gender equality thus has to do with how women engage in processes of change and sustainable development in the countries, which cannot be achieved without equal participation by men and women.

From this perspective, the gender digital gap offers a specific opportunity to tackle gender inequalities in the region, because digital technologies are tools that are capable of improving living standards and access to employment, income and education and health services. Accordingly, the document sets forth a series of experiences relating to public policy and initiatives by national and international organizations, which illustrate the progress and efforts under way to leverage ICTs for women's well-being.

Lastly, the gender perspective is addressed as it applies to digital strategies under way in the countries of the region. This illustrates the need for governments to make greater efforts to ensure that women gain more benefits from ICT resources.

ICTs have the potential to boost women's economic, political and social empowerment, and to consolidate gender equality in the region. Yet this potential cannot be achieved unless women overcome the barriers to ICT access and use and become fully integrated into the information and knowledge society.

This reflection brings together two thematic and public policy areas which have tended to be treated separately. As well as posing major challenges, this suggests a future agenda for research and government action ripe with potential from the perspective of both women's autonomy and the countries' development.

In this document ECLAC proposes that the governments of the countries in the region need to plan, implement and oversee policies on development —especially on production development— with an eye to the fact that women make up half of the population. Policies cannot be neutral. They must consider and aim to overcome the gender inequalities evident in the State, the market and the family. The gender perspective must cut across digital strategies for closing digital gaps (in access and, above all, in use) and resolving the specific problems, disadvantages and discrimination faced by girls, adolescent girls and women.

**Alicia Bárcena**

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# Introduction

The twelfth session of the Regional Conference on Women in Latin America and the Caribbean, bringing together representatives of the Governments of the region, will address issues of gender equality, the empowerment of women and information and communication technologies (ICTs). The Governments gathered at the Fourth Ministerial Conference on the Information Society in Latin America and the Caribbean in April 2013 reaffirmed their commitment to continue making progress towards meeting the targets identified in the Plan of Action for the Information and Knowledge Society in Latin America and the Caribbean (eLAC2015) and recognized the need for a development-based approach to policymaking and for mainstreaming gender and opportunities with a vision of inclusion that promotes equality and, in particular, narrows the digital divide.

The twelfth session of the Regional Conference on Women is taking place nearly 20 years on from the Fourth World Conference on Women, which marked one of the most important milestones in the fight for women's equality. Along with the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) —a binding convention adopted in 1979— the fourth World Conference on Women is the frame of reference for the regional conferences whose consensus informs the regional agenda for gender equality.

At the Fourth World Conference on Women, the majority of Governments recognized the need to bring women into strategic areas of non-traditional knowledge, such as technology and innovation.

The Regional Conference on Women in Latin America and the Caribbean addressed the issue of ICTs for the first time 2004. The Mexico City Consensus (2004) calls for action to "Promote all women's access to information and communication technologies as a means of eradicating poverty and fostering development".[1]

In 2010, the Brasilia Consensus once again addressed the importance of new technologies and, in agreement 5, called for the following:

- To promote actions that facilitate women's access to communications and new information technologies, including education and training in the use of such technologies for networking, advocacy and exchange of information, educational activities, and the specialized use of these technologies in economic activities;
- To promote women's access to science, technology and innovation, encouraging the interest of girls and young women in scientific and technological fields.

These international commitments coincide with major changes that are altering the political and institutional map for gender equality: the emergence of a new multilateralism with new countries and leaders whose influence on the international scene is growing, and the rise of new social movements in which young women broadly participate. The means for political and citizen participation are changing and rely increasingly on social networks and the broad array of ICT tools.

Long-elusive equality is now on government agendas. This, to some extent, can be seen as a victory for women. Contrary to the prevailing trends, the women's movement and the machinery for the advancement of women have

[1] See [online] http://www.cepal.org/cgi-bin/getProd.asp?xml=/mujer/noticias/paginas/2/28702/P28702.xml&xsl=/mujer/tpl/p18f.xsl&base=/mujer/tpl/top-bottom.xsl.

for more than two decades been advocating decisive State action to eliminate discrimination, often in a context in which the dominant theme was to shrink the State or limit its powers.

The actions that States took to deal with the financial crisis of 2008 and save the international financial system did (rather dramatically) make it more obvious that the State can and should intervene in the market in order to ward off further damage. This heterodox intervention has unintentionally paved the way for extending to other policy areas women's longstanding demand that the State be a guarantor of human rights.

Latin America and the Caribbean has been able to reduce poverty and weather the financial and economic crisis better than other regions, while maintaining democratic institutions. There is new appreciation for the State in its role in promoting and guaranteeing equality, although its ability to ensure gender equality remains weakened and it is becoming increasingly clear that a new State-market-society covenant is needed to move the gender equality agenda from the sidelines to front and centre.

In recent decades there has been growing recognition of the importance of and need for gender equality, largely thanks to the leadership of women who have democratized the regional scenario and even become president in a number of countries. The most encouraging trend, made possible by educational and political achievements, is women's increased presence in the labour market, which has in turn reduced the proportion of women with no income of their own.

Many Latin American and Caribbean countries experienced rapid economic growth in the past 10 years, which has made it possible to significantly improve the standard of living for the population. Thanks to favourable external conditions and inclusive policies, not only was major headway made in reducing unemployment and poverty, but also for the first time in several decades, a sizeable subset of countries in the region achieved positive results in terms of income distribution (ECLAC, 2012b).

Uncertainties are now clouding this progress, not only because of the lingering international crisis, but also because of the natural-resource-intensive and low-knowledge-content production and export specialization that has taken root in the region. Latin America and the Caribbean must overcome these substantial constraints if the current phase of growth is to be sustainable, bearing in mind, as well, that the heterogeneity and low technological sophistication of its production structure hamper efforts to overcome the problems of inequality faced by the countries of the region.

Despite a number of achievements in the area of equality, major challenges remain. Women's overrepresentation among the poor has become a topic and a focus for social policy, which sometimes delivers monetary benefits directly to women without further analysis of the issues involved, hinting at an underlying gender bias in social policies (ECLAC, 2012b). In a context of weak production structures and extractive economies, available employment unfairly favours men, wastes women's educational attainments and fails to eliminate the domestic burden carried over from times in which women were responsible for the care of family members.

Changes in demographics and education, and female emancipation itself, are laying bare the need to promote greater efficiency and equity in markets so as to make use of women's capabilities. And they are casting more light on the structural injustice underpinning the current economic and social structure.

The need for structural change as a pillar of development has been and remains the key challenge faced by Latin America and the Caribbean. The region must therefore build policies and institutions that can drive that process.

Advancing towards sustainable growth with greater equality calls, then, for constructing mechanisms to densify the production matrix and make it more diversified in terms of high-productivity activities that embed knowledge.

The driving force behind that transformation is the generation of knowledge and the incorporation of innovations and new technologies in society as a whole as well as in the production system. At the heart of that process are ICTs and dissemination of the digital paradigm.

An essential part of that effort is to spread and implement ICTs in the production sector, as well as the development of sectors that deliver ICT-linked products and services. Effective development of the digital economy is key to production transformation, competitiveness and social and digital inclusion.

This document proposes that inequality is found mainly in the world of work (both paid and unpaid) and that public policies must act as a tool for seizing the opportunities arising from the new technology paradigm. To that end, it is necessary to promote policies that prevent labour segregation and segmentation, avoid the income gaps that disadvantage

women, and promote a fair sexual division of labour. The overall organization of social reproduction must be addressed with a broad array of active labour market policies so as to facilitate women's participation and economic autonomy.

The social changes are as dramatic as the technological and economic transformation that is taking place (Castells, 1997). Against this backdrop, women have been entering the paid workforce at a steady pace over the past decade (although progress has slowed in recent years) amid persistent discrimination. According to an International Telecommunication Union (ITU) report, although women are entering ICT-related technical and professional positions, lower-level jobs are still highly feminized. The report stressed that in the United Kingdom women make up 30% of technical operations staff but hold only 15% of the management-level posts and but 11% of ICT strategic planning positions (ITU, 2012).

The data set out herein reveal once more that equality is not an automatic outcome of growth and that income distribution between women and men is not equal. Slow progress in closing labour market gaps (including in the high-tech labour market, where ICTs are an integral part of the production model) shows the need to raise awareness of the obstacles to access that have to do with women's continuing to be the main providers of unpaid work and care in the home. As long as this persists, there will be no change in patterns of access to and use of ICTs.

There is ample evidence of how important ICTs are for economic and social development (ECLAC, 2013b). These technologies are the engine of the new economic model, based on the information and knowledge society. In turn, they contribute to people's integration and well-being, to the extent that the possibilities for accessing and using ICTs are creating new social categories (the "info haves" and the "info have-nots"). Technology is also coloured by cultural issues that keep it from being gender-neutral and shape factors such as degree of access, intensity and types of use and acquisition of technological skills.

The use of mobile telephones, computers and the Internet is expanding overall, although there are significant variations from one country to another. On the heels of this increase comes a certain degree of convergence between levels of access for women and men (although there are also some differences among countries). But the gender digital divide continues to show that the overwhelming majority of users are still men. And new gaps are opening up in intensity of use, technological skills and differentiated reasons for use, and they put women at a technology disadvantage even though the ways they use it (health and education, among others) have a greater impact in terms of social well-being.

The employment sector has, however, been identified as one where women do have something of a digital advantage (in the countries reviewed, computer and Internet use among wage workers is higher among women than among men). This phenomenon is closely linked to the horizontal and occupational segregation of the labour market: women are highly concentrated in the tertiary sector, which is currently the most ICT-intensive.

The gender digital divide and the second digital divide (which refers to skills, uses, intensity and advanced uses) compound other gaps. Age, educational and socioeconomic level, social class, ethnicity and location are variables that have an impact on levels of access to ICTs —so much so that they mark the dividing line between the "info-haves" and the "info have-nots". Here, too, gender operates as a cross-cutting dimension: for any of these variables it also means a lower level of access to and use of technology by women.

Remaining on the sidelines of ICT use means forgoing the enormous benefits that these tools bring in terms of information, communication, education, training, management, transactions, positioning and relationships, among other dimensions of social and economic life. It means not being an active part of a connected society, where digital inclusion operates as a key comparative advantage for integration and makes a significant contribution to well-being.

Demand for components, services and digital content indubitably makes the ICT sector an employment niche (present and future) with enormous opportunities in a field that is not only at the core of the information and knowledge society paradigm, but also cuts across all production sectors and activities.

But a look at this dimension reveals clear signs of gender inequality. One of them is women's smaller share in ICT-related occupations. This factor has a lot to do with women being less inclined to go into the field of computer science, mathematics or engineering, and it feeds the significant lack of women decision makers, creators and professionals in the ICT sector. It is already leading some governments to make efforts to attract more women to the sector, not so much on principles of gender equality (although this is also a reason in some cases) but rather because of the imperative need for a larger workforce in these activities.

Another gender equality failure of the information and knowledge society is the lack of participation and presence of women in digital content production. This leads to a high degree of sexism in Internet content, especially in the video game industry, where a recurrent theme is women's representation as passive sexual objects and men's as active and violent. Such content, created by and for men, contributes nothing to removing barriers to gender equality in the promising field of Internet and digital content.

But these gaps do highlight the countless opportunities for public policy, business and civil society action to turn this new economic and social territory into a truly inclusive space and a powerful tool for the advancement of women and gender equality in the world. Nor should the progress and achievements to date be ignored. The gradual narrowing of the digital divide in most countries, the non-existent access gap among younger population groups and women's gradually improving access to ICT-related education and professions (although they are still in the minority) demonstrate the potential for transforming sexist content. There is more and more space on the Internet for defending and promoting equality, which is reason enough to believe that there is enormous potential for building a more inclusive information and knowledge society.

In 2011, mobile telephony penetration in Latin America and the Caribbean exceeded the 100% threshold; fixed broadband penetration reached 7.7%, and mobile broadband penetration was 10.6% (ITU, 2012). Latin America and the Caribbean is the region that has seen the greatest growth in Internet use in the last few years, rising to 39% of the population in 2011. In 2012, the region accounted for 9% of the global Internet audience.

But the magnitude of the challenges is such that these gains still fall short and a yawning gap is opening up in terms of the region's capacity to take ownership of and use ICTs to boost development, competitiveness and equality.

Progress has been uneven, with significant heterogeneity among the countries of the region in terms of the level of preparedness for the information and knowledge society.

# Women in the information and knowledge society: opportunities and challenges

With a view to understanding the changes taking place, studying their impact and identifying potential opportunities for achieving gender equality, this chapter looks at how women are faring in the labour market and at the gender digital divide, discusses the reasons for promoting structural change for equality in the information and knowledge society, and analyses women's autonomy in the new technology paradigm.

## A. The pattern of women's employment

Female participation in the labour market, regarded as one of the most important and enduring social and economic transformations of recent decades, has not lost ground during crises. But progress has slowed since the start of the new millennium, and women's employment status has remained as precarious as ever. It is women with higher levels of education, fewer family responsibilities and more resources to pay for care services who have the highest rates of economic participation. This stratification of the female workforce is exacerbated by the segmentation of the labour market itself and compounded by an undersupply of care services (Rodríguez and Giosa, 2010).

Although women have a significant presence in the labour market, occupational segregation persists. It is a clear demarcation between market sectors and the jobs held by men and by women. Occupational segregation occurs in two dimensions: horizontally and vertically. Horizontal segregation means that women are more often found in certain sectors and certain occupations; with vertical segregation, men and women are distributed unequally across hierarchical levels, revealing the difficulties women face in getting ahead in their profession and gaining access to more skilled and better-paid jobs.

Horizontal segregation is part of a systemic issue that is reproduced in three spheres: (a) the family, through socialization, since combining a career and motherhood is still seen as the measure of a girl's success; (b) school, where the reproduction of stereotypes largely explains the overrepresentation of girls in fields of study that are compatible with family life; and (c) job opportunities, since public life requires skills similar to those valued in family life. It is no coincidence, then, that women outnumber men in education, health care, personal services and commerce (ECLAC, 2010).

The effect of vertical segregation, meanwhile, is to ensure that women generally work in the lowest level positions with the least authority, or in jobs that require fewer qualifications. This phenomenon is known as the "glass ceiling", a reference to the invisible power barriers that prevent women from ascending the career ladder.

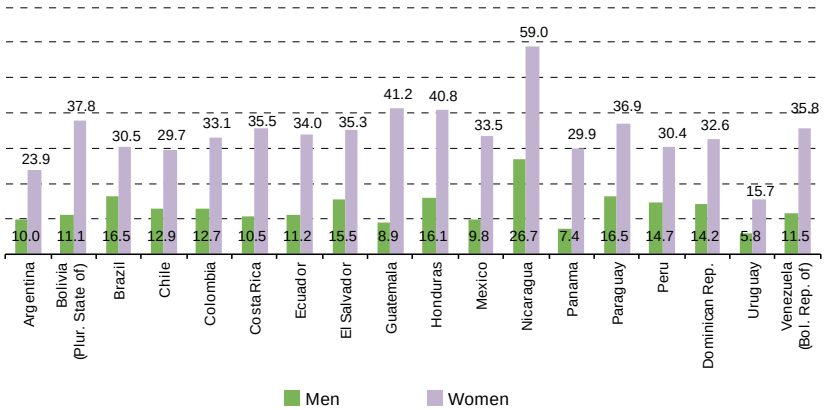
The glass ceiling includes invisible barriers such as gender stereotypes and prejudices, hostile corporate cultures that tacitly exclude women from informal communication networks, and scant opportunities to gain managerial experience. Other factors include labour policies that view caring for dependent family members as women's work, as a corollary of their other duties in the home. While the "glass ceiling" describes the experience at the upper end of the hierarchical structure, the term "sticky floor" is used by some authors to describe the situation of women at the

lower end of the wage hierarchy, who find it hard to move away from low-paid jobs with limited mobility prospects. The greatest difficulties are also associated with a lack of affordable care services and a lack of opportunities for on-the-job training (Harlan and Bertheide, 1994; Albelda and Tilly, 1997, in ECLAC, 2010).

A precarious employment pattern may create opportunities for some women, but it is also responsible for low employment standards, profiles of labour segregation, gender-based wage gaps, and limited or non-existent socio-labour and union rights, a result of a lack of policies promoting decent work and limited joint responsibility for productive and reproductive work.

In most of the countries in the region, women make up a significant percentage of lower-income groups. One of every three women in Latin America still have no income of their own, and their presence in the digital economy is characterized by the same discriminatory biases they face in other areas of their private and social lives (see figure I.1).

**Figure I.1**
**Latin America (18 countries): population without own income, by sex, 2010** [a]
*(Percentages)*




**Source**: Economic Commission for Latin America (ECLAC), on the basis of special tabulations of household surveys.
[a] National data, except for Argentina (31 urban areas). Data correspond to 2010, except for Brazil (2009), Chile (2009), Guatemala (2008), Nicaragua (2005) and the Plurinational State of Bolivia (2007).

**Box I.1**
**Time for equality**

The performance of the labour market is the most obvious outward sign of the quality of economic and social development. The labour market's ability to absorb the economically active population, underpin a reasonable degree of social mobility, provide acceptable wages, working hours, employment stability, labour rights, contracts and union organization, as well as offer protection for the unemployed and retired population, are all key pieces in the puzzle of social cohesion.

The labour market also needs to be able to do these things in order to promote a type of economic growth that can impact more positively on the distribution of income and employment. These achievements, however, are not a natural result of market forces, but depend on appropriate public policy decisions. Decisions in this area must take account of four important dimensions: (i) the democratically chosen values that govern the development pattern, which are structured around legitimate and stable social covenants that are duly acknowledged by the authorities; (ii) the dissemination, through industrial and technology policies, of a production paradigm that can underpin steady and sustainable productivity gains; (iii) the adoption of a macroeconomic regime in consonance with decisions on public and private productive investment and consumption, and (iv) a regulatory framework that supports the development of an institutional structure that is consistent with the public policy choices made.

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), Time for equality: closing gaps, opening trails (LC/G.2432(SES.33/3)), Santiago, Chile, 2010.

## B. The second digital divide

Some decades ago, the digital divide was a question of access to the Internet, and groups were included or excluded from the information society on that basis. Today, Internet coverage is increasing exponentially all over the world. The digital divide has become more complex than Internet access alone, with the result that the categories within it have also become more complex. There is an initial digital divide in terms of access to computers and an Internet connection, which is based on sociodemographic factors. A second divide concerns the intensity and diversity of use, and it is determined by the capabilities and skills individuals acquire in using new equipment and resources.

The second digital divide is particularly important because access (provision of infrastructure, distribution of devices and introductory learning software) is an easier barrier to overcome than use and skills. Over and above the matter of time spent using a computer or the Internet, differences in the way that men and women use these tools require examination (Castaño, 2008).

Women are disproportionately affected by the second digital divide. In several countries in the region, women and men enjoy equal access to the Internet, which would indicate that the first digital divide is disappearing. Not so the second digital divide, where women are at a clear disadvantage compared with men since their usage is more limited and they perform activities requiring less technological skill (Castaño, 2008). These differences can be traced to asymmetric power relationships between men and women, rooted historically in the hegemonic gender system that is reproduced in the family, at school and in the working world.

Understanding how this second digital divide between men and women developed and why it persists is crucial for formulating policies to reverse the disadvantaged position of women in the information and knowledge society and in the digital economy.

In general, the number of users of both sexes has increased in all the countries in the region for which information is available. But the gaps between women and men have also widened, in favour of men. Brazil, Mexico and Uruguay are the only three countries with information available where the gap between men and women has narrowed. In all other countries, the gap between men and women widened because, even though the proportion of users of both sexes increased between the two years for which there is information, the distance between men and women grew. Chile is among the countries in the region with the largest percentage of people who state that they use the Internet, and the gap in use between men and women is nearly 5%. In Peru, too, there is a wide gap, with 26% of women stating that they use the Internet compared with 34.1% of men. The fact that the gender gap is growing as the number of users rises calls for active gender equality policies to be formulated by the agencies responsible for policymaking on information and communications technologies (ICTs) (see chapter II).

Given this situation, more and better participation by women in the information society, regulated by public policy, would produce a wide range of benefits for society as a whole. An increase in the number of women with ICT training would boost creativity, skills and competitiveness in the technology sectors. In addition to building capacity in the region's countries, it would help them achieve a critical mass of ICT professionals more quickly, which would facilitate the development of a national and regional digital economy (Huyer and Mitter, 2003).

## C. Structural change for equality in the information and knowledge society

Production structures in the Latin American and the Caribbean countries are in need of reform. They are currently extremely heterogeneous; knowledge-intensive sectors make up only a small proportion, which tends to heighten social inequality. Structural heterogeneity is one reason for the region's deeply rooted social inequality, since productivity gaps reflect and at the same time determine capacities to integrate technical progress, bargaining power, access to social safety nets and options for upward occupational mobility (ECLAC, 2013). In all these areas, women encounter more difficulties than men at the same socioeconomic level.

Structural change means placing qualitative changes in the production structure at the centre of the growth dynamic. Greater participation of knowledge-intensive sectors and activities in overall production is needed, to ensure better global engagement and virtuous growth in domestic productivity and employment. Such a strategy would foster the building of capacities, knowledge and learning in coordination with production and investment across the economy and the social fabric (ECLAC, 2012).

Structural change entails abolishing models that perpetuate the entrenched inequalities in gender labour relations that assign hierarchical roles and more advantageous places or jobs to men; it goes beyond the sustained efforts in training, professionalization and autonomy made by women in the region.

Development strategies based on structural change are an option that would enable countries to join the information and knowledge society in a more advantageous position. Given that women bear the larger burden of inequality in these societies, it is even more important to study the opportunities and obstacles they encounter in their efforts to participate in the knowledge society on equal terms with men.

The traditional sectors are not the only factor to consider in the context of these necessary changes to production structures; as an engine of growth and knowledge dissemination, the new ICT-based sectors also hold opportunities for women.

Owing to the prevailing systems of gender relations in today's societies, men and women are not on an equal footing as they face the restructuring of production driven by new technologies.

## D. Women's autonomy in the new technology paradigm

The way labour is divided between men and women and the extra burden of unpaid work carried out by women hamper their full incorporation into the process of structural change. Any analysis performed for the purposes of shaping public growth and equality policies must therefore pay special attention to aspects that could underscore the concept of structural change with equity, specifically gender equality, and open opportunities for men and women alike. Economic, technology and social policies aimed at structural change can either promote gender equality or take a neutral approach, which would ensure that inequalities persist. Particular attention must thus be paid to each stage of production policy development, from design and implementation to subsequent monitoring and evaluation, continuously measuring its impact on the lives of women and men.

Two levels of analysis will be used to delve more deeply into the subject of women's autonomy in the new technology paradigm. The aim is to examine the opportunities presented by the new paradigm for the advancement of women and identify the tools that will be useful for achieving this advancement. First, possible strategic links between the information and knowledge society and the gender equality agenda are discussed. Second, tools that the gender equality agenda could exploit to meet its objectives are considered.

### 1. Strategy: challenging neutrality

At the strategic level, the aim is to find common ground between the information and knowledge society and the gender equality agenda, and to pinpoint areas of action for gender equality policy within the new paradigm. This means identifying the most critical areas within the new paradigm for dismantling the hegemonic gender system while helping women in all their diversity become protagonists of development. This is an emerging debate, and it is about more than simply acknowledging economic, production and technological changes. It is about how to capitalize on the opportunities presented by the information and knowledge society for achieving autonomy in all its dimensions (economic, physical and decision-making) and gender equality.

At this level of analysis comes, for example, an examination of the potential opportunities for women's autonomy offered by new forms of production, greater job flexibility and developments in ICT-mediated services. It also entails discussing the cultural and environmental changes taking place alongside economic development, the geopolitical changes produced by globalization, and the role of the State. This strategic reflection calls for rethinking the meaning of present and future development; one of its first consequences for development is to blow apart the mode of thinking in which women's unpaid work has historically not been treated as work. This conceptual shift transforms the development analysis framework, calls into question the established hierarchy of production and reproduction, and raises questions regarding public policy priorities.

Another key discussion has to do with recognizing that the boundary between the public and private spheres can indeed be changed. It has been moved in recent years by women's movements, which have expanded the horizon of human rights by invoking State protection against violations that traditionally belonged to the private sphere. Issues related to individual freedoms, personal safety and the right to decide to participate and be represented are part of the debate surrounding the information and knowledge society.

Such issues constitute a platform from which to study the expected positive impact of a convergence between the environment created by the information and knowledge society and advances in public policy for gender equality.

The opportunities that are opening up for women thanks to the new technology paradigm and the way that globalization is transforming production are another critical line of enquiry. Technologies and technological capacities determine the potential for growth and the impact of global technology on windows of opportunity for domestic and regional development. Clearly, each technological revolution offers huge potential for creating wealth and social welfare.

Identifying potential windows of opportunity requires an understanding not only of the nature of the ICT paradigm, but also of the new international corporations. It entails a radical change in the way that the economy, wage labour and market opportunities for entrepreneurship are organized. Yet this change requires new knowledge and an understanding that social and economic actors are undergoing a transformation. Ultimately, greater awareness is needed of the fact that institutions (State, market and family) are not neutral and that their functioning reflects conflicts, interests and power relations.

Domestic production policies are in a state of flux, and they must openly question the most effective and fairest way of integrating women who are seeking paid work and access to income and welfare on equal terms with men.

For this to happen, policies that take account of care requirements must be developed, given that these duties are currently performed almost exclusively by women on an unpaid basis. Production development policies will not work without policies for providing women with adequate access to the world of work and increasing men's responsibilities in the home. This, then, is what is meant by questioning the apparent neutrality of policies (Montaño, 2010).

Similarly, production development policies must tackle labour segmentation, since this reflects how gender stereotypes stand in the way of firms using and valuing women's skills. As will be seen in chapter IV, governments should make this a top policy priority and promote women's professional development in the area of science, technology and innovation.

All the governments in the region committed to fair and inclusive social change that seeks to transform structural asymmetries such as gender inequality need to understand the windows of opportunity and how these tie in with the priorities of gender equality.

## 2. Implementation: using ICTs to achieve equality

This level of analysis looks at the extent to which ICTs could serve to further the gender equality agenda. This means using all the tools made available to women by the new technology paradigm that will be useful for disseminating and taking action aimed at achieving equality between men and women. Key questions here concern the way in which ICTs can be used to enhance equality-based actions and policies, and the tools that would enable governments to improve the effectiveness of their actions to achieve gender equality.

**Box I.2**

**Haiti: empowering women through mobile phones**

Although a low percentage of Haitians use the Internet, mobile telephone ownership is much higher. According to 2011 figures from the International Telecommunication Union (ITU), only 8.4% of the population in Haiti use the Internet, but 41.5% have mobile telephone subscriptions.

The following three examples illustrate how mobile telephony can become a tool for women's welfare:

(a) A group of Haitian female engineering students in the Women's P2P Network are spearheading the Market Women Network, which aims to integrate over half a million Haitian market women from both urban and rural areas into a network of business communications and applications based on mobile phone technology. The students have also developed voice applications in order to get around the problem of illiteracy, which could otherwise bar many of the network's potential beneficiaries from using the tool.

(b) The Commission of Women Victims for Victims (Komisyon Fanm Viktim pou Viktim, KOFAVIV), a non-profit women's organization working for the rights of female victims of sexual abuse, together with the United States non-governmental organization Digital Democracy, set up a call centre offering support and advice for sexual assault and rape victims. It is aimed in particular at women living in unsafe conditions in camps for people displaced by the 2010 earthquake. Many of these women are living in poverty and have difficulty in obtaining information and help after a sexual assault, but most do have access to a mobile telephone, which becomes a powerful tool for prevention and for accessing information. KOFAVIV negotiated with the main telecoms firms in Haiti to make the call service free. The women who run the victim care services use data on the calls to produce statistical reports, which are a valuable source of information for government policymaking aimed at combating sexual violence in Haiti.

(c) In March 2012, the United Nations Development Programme (UNDP) began to offer cash subsidies to low-income families to repair housing damaged in the earthquake, through a mobile money transfer system. In a country where 40% of households are headed by women, but only 10% of the population have bank accounts, the project also helped to bring women into the formal financial sector through mobile banking.

**Source**: International Telecommunication Union Database [online] http://www.itu.int/ITU-D/ICTEYE/Indicators/Indicators.aspx#; Women's P2P Network [online] http://womensp2p.org/; Digital Democracy [online] http://digital-democracy.org/; Anastasia Moloney, "Rape hotline a lifeline for Haitian women" [online], Thomson Reuters Foundation, 6 July 2012; Reuters [online] http://blogs.reuters.com/; UN News Centre, "Haiti: First mobile phone cash transfers facilitate UN-backed home rebuilding", 1 March 2012 [online] http://www.un.org/apps/news/.

The analysis shows that a very broad spectrum of potential resources is available, ranging from technology to prevent violence against women (such as mobile phones, cameras and sensory devices that detect the approach of attackers) to the regulation of telework. With the incorporation of new technologies and devices on a massive scale, machineries for the advancement of women have had to make important choices over the past few years about the use of these new devices. For example, they have faced questioning over the use of tracking and monitoring devices to prevent violence against women (see box I.3).

**Box I.3**
**Uruguay: welcome to localization technology**

Uruguay has an action protocol for the implementation of technologies that detect people's presence and location (anklets) in high-risk domestic violence cases. It was drafted by an inter-agency commission in which the three branches of government were represented. The legislative branch was represented by the Bicameral Women's Caucus, which made the following statement on the subject: "Women whose lives are at risk as a result of domestic violence need this measure and others like it right now; our society needs to see that domestic violence is a crime and judicial decisions must be respected. More than 20 women have died so far in 2012, despite the fact that many of them had obtained restraining orders that the men broke. These deaths could have been prevented through supervision of the kind offered by this new technology." According to the Caucus, it is "essential to promote cooperation between parliaments, international organizations, civil society and the private and public sectors at the national and regional level to develop policies and programmes that will make headway in the prevention and eradication" of this serious problem.

**Source**: *La República de las Mujeres*, Montevideo, Bicameral Women's Caucus, 25 November 2012.

## E. Concluding remarks

There are at least three conclusions to be drawn regarding women's autonomy and gender equality in the new information society paradigm. First, it is clear that in the digital economy as in other economic models, opportunities are not distributed equitably among countries or among individuals, creating asymmetries that must be combated with specific policies targeting the source of inequality. Second, the fact that the digital divide between men and women is widening as the number of Internet users increases is a wake-up call in favour of active gender equality policies, since better access to ICTs will not by itself resolve the gender digital divide. Lastly, the structural change that the countries of the region are to undergo must overcome the characteristic neutrality of public policies to include action aimed at achieving equality between men and women.

# Where are women in the economy? Work, employment and access to and use of information and communication technologies

According to the population projections drawn up by the Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, women account for 50.9% of the population of Latin America and the Caribbean, or over 300 million individuals. Yet women continue to be treated as a vulnerable, exceptional or minority group. Many experience precarious living and working conditions and they face persistent discrimination. Problems such as violence and excess work burden reduce women's quality of life and curtail the enjoyment of their rights.

The purpose of this chapter is to use certain indicators to show how the region's women are positioned in the economy and how they use the Internet. Household surveys and, in some cases, population or economic censuses, are taken as the primary sources in describing the places women occupy in the economies, and the main challenges they face in fully integrating into the information and knowledge society.

The first section deals with labour-market indicators prepared on the basis of the most recent household surveys. The second section addresses the heterogeneities found among the region's women, working with household surveys to report on women living in rural areas,[1] and with the latest population censuses in the case of indigenous women. The third section, on Internet access and use, relies on the latest household surveys to include modules or questions on Internet use that were comparable between countries.

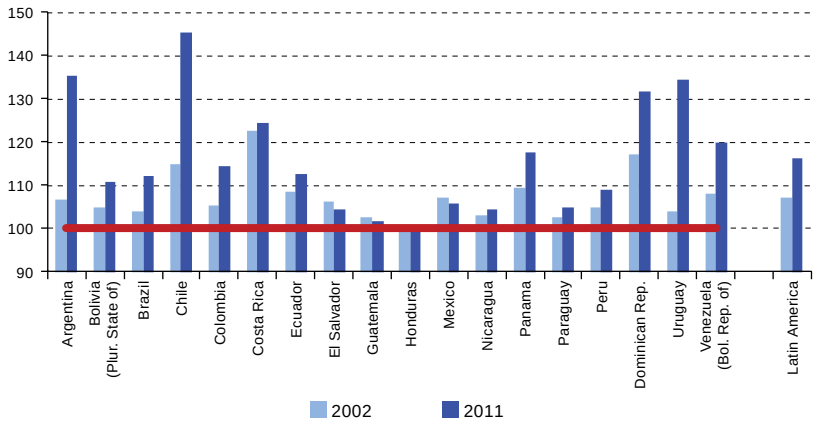
## A. Women in the labour market

When looking at certain gender indicators, one of the main challenges is to understand why a greater proportion of women than men (of working age, aged 20 to 59) live in poor households. Issues relating to the burden of care work and family responsibilities limit women's ability to enter the labour market and generate the income that may help lift these households out of poverty.

Although the region's economies have delivered economic growth despite the crisis in the countries of the North, women continue to suffer various forms of discrimination and they account for a rising proportion of those living in poor households.

[1] Not all countries have available information to enable calculations on the population living in rural areas.

**Figure II.1**
**Latin America (18 countries): femininity index of poverty, around 2002 and 2011[a]**
*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] Data for 2002 refer to the national level, except Argentina, Ecuador and Uruguay, where they refer to urban areas. National data for Chile are from 2003 and those for El Salvador, Nicaragua and Paraguay are from 2001. Data for 2011 refer to the national level, except Argentina, where they refer to urban areas. National data for El Salvador, Honduras and Mexico are from 2010; those for Nicaragua and the Plurinational State of Bolivia are from 2009; and those for Guatemala are from 2006.

Taking the household as the unit of analysis, the poverty figures show no great differences between poor and non-poor households in terms of the proportion of men and women overall. However, gender differences in poverty levels do become apparent when examining the working-age population subset. The femininity index of poverty for individuals aged 20 to 59 indicates that the poverty rate was higher for women than for men in that age group in all of the region's countries, with the highest figures in Argentina, Chile, the Dominican Republic and Uruguay. In each case, the poverty rate for women aged 20 to 59 was at least 30% higher than that of men of similar age. The findings also indicate that while poverty is falling in the region, differences between men and women are tending to widen in several countries. In 2002, the simple average of this index was 107 for the region as a whole, whereas it currently stands at 116 (ECLAC, 2012b).

The supply of paid work is regulated, among other things, by the negotiation that takes place within households on the sex and age distribution of unpaid reproductive work among household members. This distribution takes place through the allocation of time to unpaid and paid work: the individuals (mainly women) who take on unpaid work liberate potential workers from care responsibilities (ECLAC, 2012b).

Total work time is measured through time-use surveys, which are both complex and costly. Nevertheless, most countries in the region already have some experience in this regard, and in several instances have carried out more than one study in the past 15 years. In addition, a number of countries are performing calculations to estimate the monetary value of unpaid work.

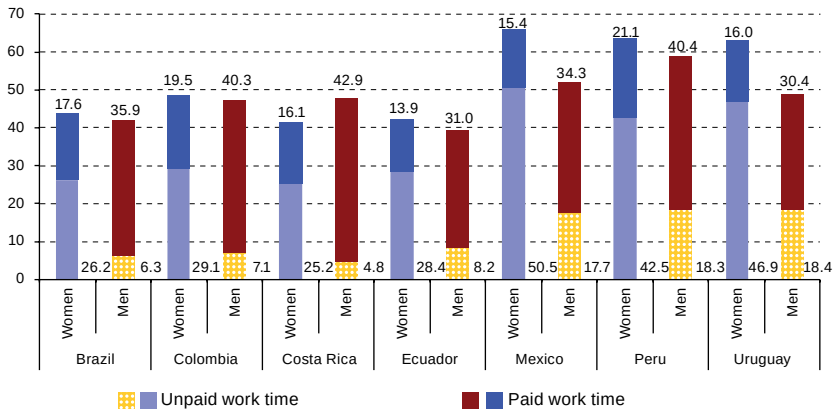
Time-use surveys have helped to shed light on the burden of unpaid work that is shouldered by women. For example, in Mexico the economic value of unpaid work is equivalent to 21.6% of gross domestic product (GDP), with women contributing 78.3% of this figure.[2]

In the countries with available information, in terms of total work time —paid and unpaid work added together— women worked longer hours than men. Men devoted more time to paid work and women spent more time on unpaid work. Women worked longer daily and weekly hours than men in all cases.

Measuring and comparing the time men and women devote to care work has revealed new evidence of entrenched inequalities within households. Time-use analysis also permitted an approximate estimate of the economic value of care and its contribution to the wealth of countries, raising serious questions in relation to the analytical gap of traditional economics in this area.

[2] Data from the National Institute of Statistics and Geography (INEGI) of Mexico, 2012.

**Figure II.2**
**Latin America (7 countries): total time spent on paid and unpaid work, by sex** [a]
*(Average number of hours per week)*

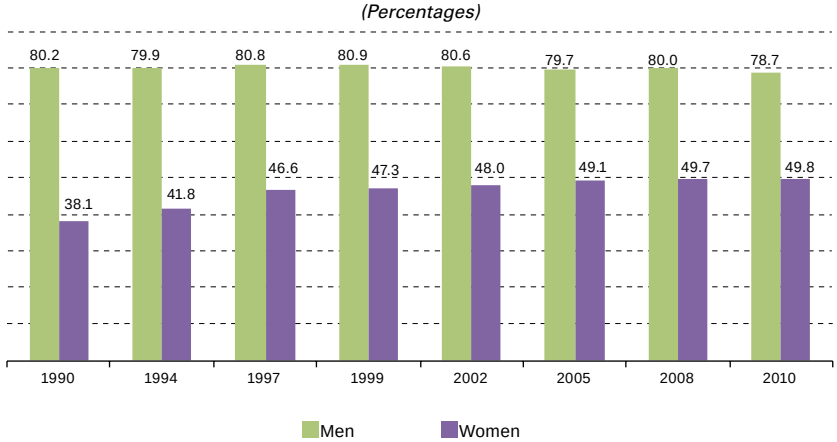



**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] Population aged 15 and over. Data are from 2011, except those of Peru (2010), Mexico (2009) and Uruguay (2007).

While female participation in employment has risen in recent decades, it has stagnated since the early 2000s and still leaves half of Latin American and Caribbean women without ties to the labour market. On average, the female labour-force participation rate in Latin America stands at 49.8%, meaning that one in two women of working age is working or actively seeking paid work. The average participation rate for men is 78.7%; 30 percentage points higher than that of women (see figures II.3 and II.4).

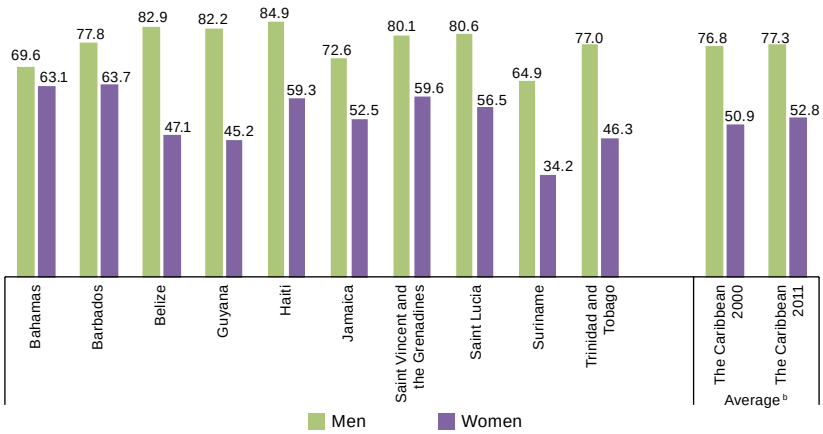
There are also gender disparities in the economically active population. The average unemployment rate for women in Latin America is 7.9%, while that of men is 5.6%. Despite unemployment falling steadily in the region in recent years, and women demonstrating the willingness and the need to enter the labour market, they still suffer from higher unemployment rates than men.

**Figure II.3**
**Latin America (simple average, 18 countries): labour-force participation rate, by sex, national total, survey rounds** [a b]
*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] Surveys of the population aged 15 and over. Data refer to the national level, except for urban data used in all rounds in Argentina; in the 1990 and 1994 rounds in the Plurinational State of Bolivia; in the rounds from 1990 to 2002 in Ecuador; the rounds from 1990 to 1999 in Panama; the rounds from 1990 to 1997 in Paraguay; and the rounds from 1990 to 2005 in Uruguay.
[b] The 1990 round excluded the Dominican Republic, El Salvador and Nicaragua; the 1994 round excluded the Dominican Republic and Guatemala; the 1997 round excluded the Dominican Republic, Guatemala and Nicaragua; the 1999 round excluded the Dominican Republic; the 2005 round excluded Guatemala; the 2008 round excluded Nicaragua; and the 2010 round excluded Guatemala.

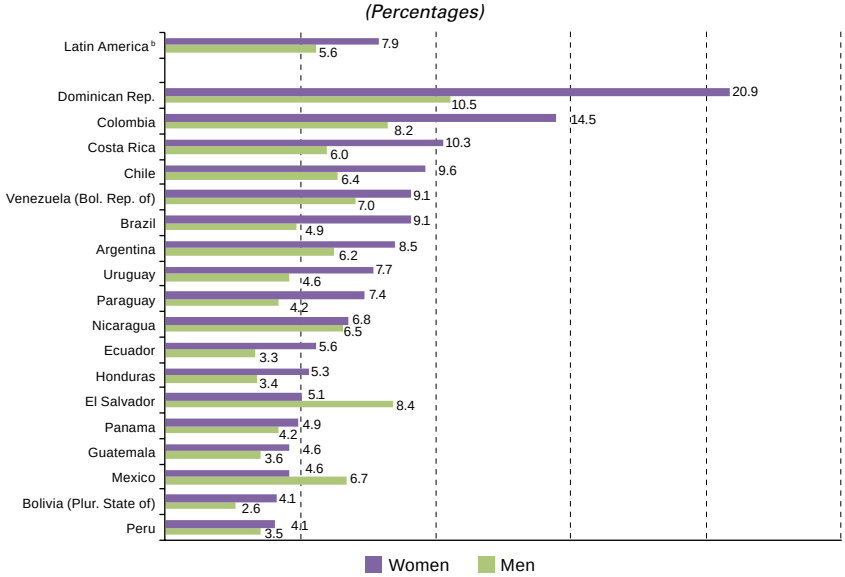
**Figure II.4**
**The Caribbean (10 countries): gross labour-force participation rate, by sex, 2011** [a]
*(Percentages)*




**Source**: International Labour Organization (ILO) online database.
[a] As a percentage of the total population. Result of estimating the labour-force participation rate and the total population based on information from country censuses and household surveys.
[b] Simple average.

This means that women have more difficulty in finding a job and that, even in times of growth and prosperity, their labour-market status does not achieve parity with that of men (see figure II.5).

**Figure II.5**
**Latin America (18 countries): unemployment rate, by sex, national total, 2011** [a]
*(Percentages)*



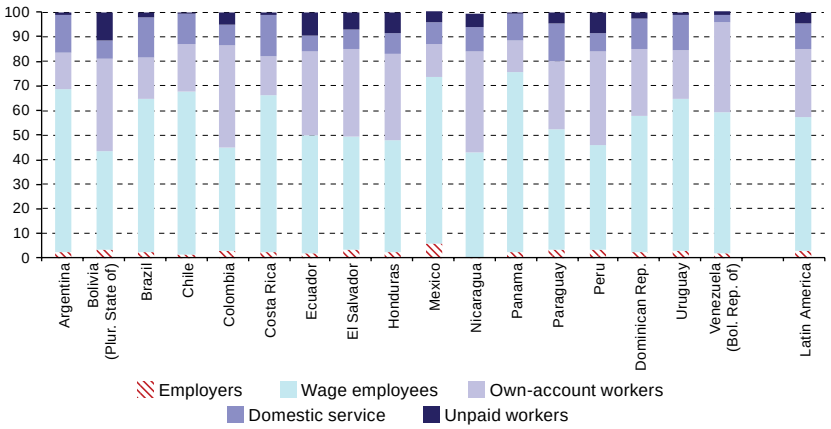

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] As a percentage of the economically active population. Thirty-one urban areas were surveyed in Argentina. Data correspond to 2011, except those referring to the Plurinational State of Bolivia and Nicaragua (2009) and El Salvador, Guatemala, Honduras and Mexico (2010).
[b] Simple average.

It is clear that women find themselves in more precarious, lower-income positions in the Latin American labour structure. In terms of occupational categories, men are mostly in wage employment and they make up a higher proportion of employers. By contrast, women account for a smaller share of wage employees, with one in ten (10.7%) employed in domestic service. For men, this percentage is minimal (0.5%).

Panama and Mexico have the highest figures for female wage employees, followed by Chile and Argentina. The Plurinational State of Bolivia has the smallest proportion of female wage employees, accounting for just 39.9% of

working women. It is also the country with the highest proportion of women (more than 10%) who report being engaged in unpaid family work (see figure II.6).

**Figure II.6**
**Latin America (simple average, 17 countries): distribution of working women by occupational category, urban areas, 2011** [a]
*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] Working women aged 15 and over. Thirty-one urban areas were surveyed in Argentina. National data are given for the Bolivarian Republic of Venezuela. Data correspond to 2011, except those referring to Nicaragua and the Plurinational State of Bolivia (2009) and El Salvador, Honduras and Mexico (2010).

Costa Rica, Brazil, Paraguay and Argentina are the countries with the highest proportion of women employed in domestic service. This work is precarious, little regulated and still without social rights across most of the region. Only Nicaragua, Paraguay, the Plurinational State of Bolivia and Uruguay have ratified International Labour Organization (ILO) Convention 189 concerning Decent Work for Domestic Workers, and as yet there have been no assessments on its implementation.

While the category of own-account workers may relate to formal enterprises covered by social security, it generally refers to activities carried out by individuals on the informal market, with low protection levels and financial returns. Colombian, Nicaraguan and Peruvian women have the highest representation in this occupational category, with Colombia having a similar proportion of own-account workers and wage employees. At the other end of the scale, women account for a tiny proportion of employers in all the countries. Mexico reported the most women in this category, albeit still only 6%, while in the other countries the figure stood at 3% or less.

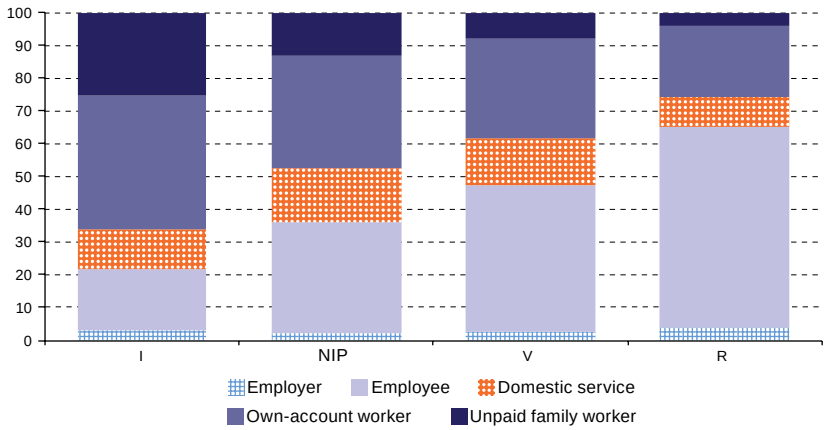
The growth of the informal sector of the regional economy is historically related to the lack of formal jobs, and to working conditions that are not covered by social rights. Informal work can become an alternative to unemployment, generating an income through tasks outside the formal market, with no social protection and in highly precarious and insecure conditions. However, while it helps solve the problems associated with generating income, it entails a significant deterioration in individuals' working conditions and increases their vulnerability to poverty.

As figure II.7 shows, women living in indigence and poverty predominantly fall into the occupational category of own-account workers. The category often overlaps with situations of informality, since women generally devise some means of obtaining an income, without this necessarily being classified as a formal enterprise subject to regulation and contributions that may provide them with access to social protection.

Own-account work among women living in poor households and women with low levels of education is generally related to services or sales of products that are simple to make, often as an extension of the activities they carry out for their own households (food preparation, washing and ironing clothes, among others).

The own-account worker category also includes women who have micro-enterprises and small businesses. Micro-enterprises are small businesses with particular defining features within the broader context of small production units. As well as being small businesses (as traditionally defined by sales or number of employees), they are initiatives that involve detecting a market niche worth exploiting, in some cases through innovation (in technology, marketing or services). Micro-enterprises can evolve into small or medium-sized enterprises (SMEs) or remain in the micro- category, depending on different economic contexts and their management characteristics, as well as the possibilities for accessing credit (Heller, 2010).

**Figure II.7**
**Latin America (18 countries): occupational category of women by poverty status, around 2011** [a]
*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America* (LC/G.2557-P), Santiago, Chile, 2013. United Nations publication, Sales No. E.13.II.G.6.
[a] Individuals classified in four categories: I = indigent; NIP non-indigent poor; V = non-poor vulnerable (between 1 and 1.5 times the poverty line); R = rest (non-poor, non-vulnerable).

**Box II.1**
**Chile: gender in the financial system**

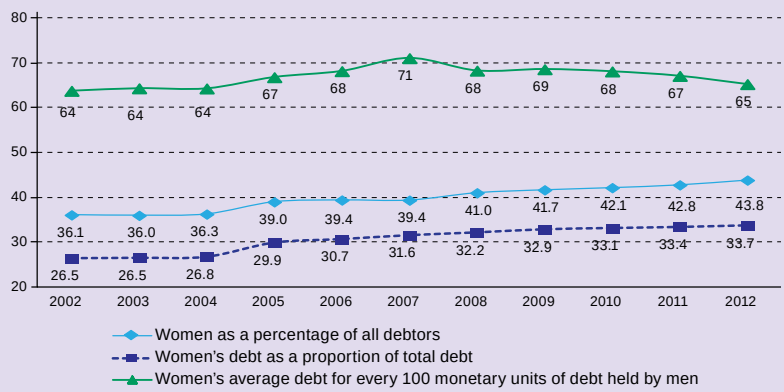
A little over 10 years ago, the Superintendency of Banks and Financial Institutions (SBIF) of Chile integrated a gender approach into its institutional reporting system, with the aim of periodically producing and disseminating statistics on the access and use of financial services by men and women. This represents an excellent initiative and a good practice for producing gender statistics in the financial system, with a view to formulating public policies on equality.

The twelfth issue of the report *Género en el sistema financiera* ("Gender in the Financial System") found that behaviours differ in the access and use of financial products, as well as in the business integrity of men and women within the financial system (see annex 2).

The main findings of these studies show that, in the financial sphere:

(a) There are gender gaps in terms of the number of clients and the overall total of loans taken out by men and women: for every 100 debtors, 44 are women and 56 are men; and for every 100 monetary units loaned, 34 are granted to women and 66 to men.
(b) Women hold significantly less average debt than men (women's average debt ranges from 64% to 71% of men's).

**Chile: bank lending to women, 2002-2012** [a]
*(Percentages)*




**Source**: Superintendency of Banks and Financial Institutions (SBIF), Unidad de Productos Financieros e Industria Bancaria, on the basis of product system information reported by banking institutions.
[a] Yearly figures calculated in December, except in 2012, when they are calculated to September.

On business integrity:

(a) Women show a significantly lower rate of returned cheques (non-sufficient funds cheques) than men (see annex 2).
(b) Women record better payment behaviour than men, in both 90-day arrears and arrears of up to one year.

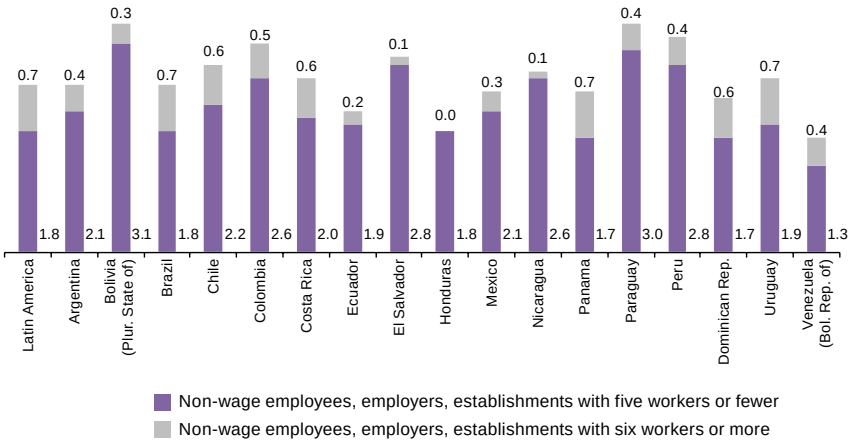
**Source**: Economic Commission for Latin America and the Caribbean, on the basis of the Superintendency of Banks and Financial Institutions, *Género en el sistema financiera. Duodécima versión*. Unidad de Productos Financieros e Industria Bancaria. February 2013.

In most cases, micro-entrepreneurial activities take the form of small-scale businesses, are located in either rural or urban areas, have few workers, are privately owned by an individual or an association, have little capital (often provided from personal or family savings), sometimes have an effect on family work, and produce consumer goods or provide services in the local community (see figure II.8).

**Figure II.8**

**Latin America (18 countries): female non-wage employees, by size of establishment, 2011** [a]

*(Percentages)*




**Source**: International Labour Organization (ILO), *Panorama Laboral 2012. América Latina y el Caribe,* Lima, 2012.
[a] Data refer to 2011, except those for the Plurinational State of Bolivia (2009) and Nicaragua (2010).

**Box II.2**

**Ecuador: National Economic Census highlights limited presence of women**

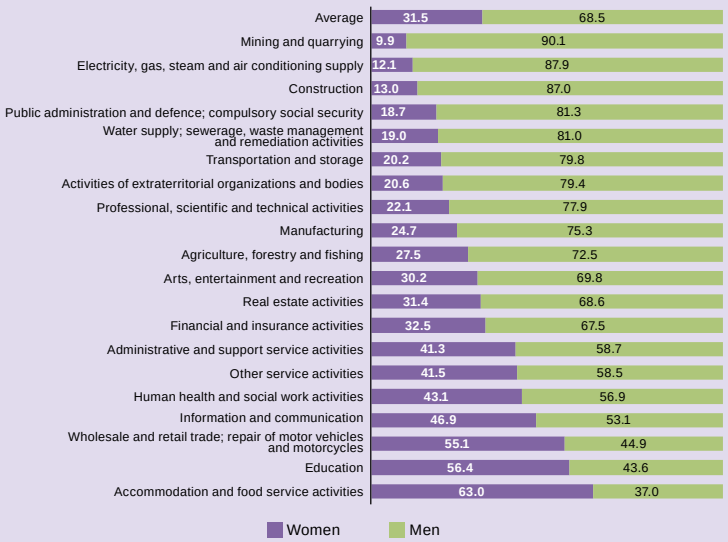
The national economic census prepared by Ecuador includes information on the specific proportion of women who own or manage businesses in different economic sectors. As a result, Ecuador is the only country in the region that has managed to identify the position of women within a broad spectrum of economic activities.

The National Economic Census of Ecuador shows that the proportion of women in senior management positions in sectors such as mining and construction is low. It is also interesting that women account for only 18.7% of managers in public administration, a sector that employs one in four Ecuadorian women.

Typically, female owners and managers in Ecuador are most numerous in accommodation and food service activities, from which it is clear that catering and hospitality businesses are an option for women, since they allow them to balance paid work with a presence in the home and continued reproductive activities (see figure below).

**Ecuador: male and female business owners and managers by economic activity, International Standard Industrial Classification of all economic activities (ISIC) Rev. 4, 2010**

*(Percentages)*

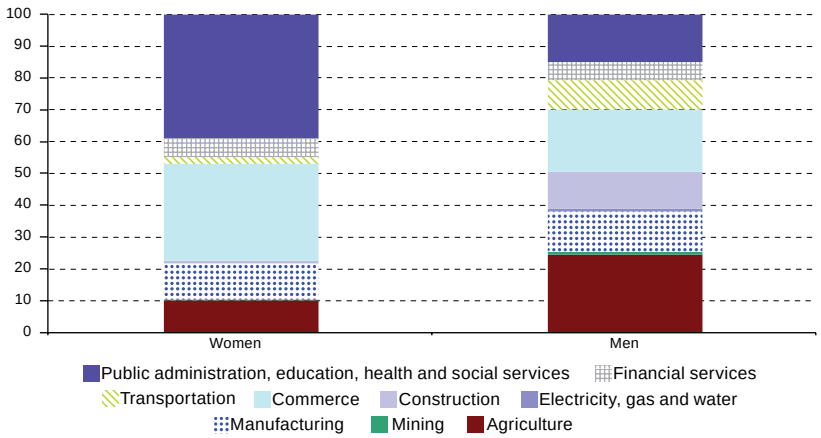



**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the National Institute of Statistics and Censuses (INEC), National Economic Census (CNE), 2010.

There are more women in this sector because it offers them the chance to start a business easily and with few barriers (legal and capital requirements, and so forth). This type of work is more flexible (activities are often carried out at home and require little investment), allowing women to reconcile paid work with their continued burden of family responsibilities and tasks (Valenzuela, 2005).

The services sector (including both financial and social services) employs 44.6% of working women in Latin America, compared with just 20.5% of men. Construction and agriculture also show gender asymmetries. One man in four works in agriculture, a sector which accounts for only one in ten working women.

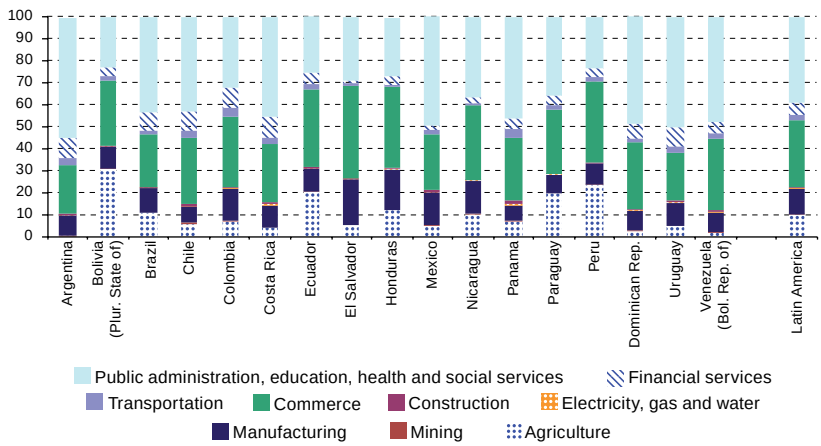
**Figure II.9**
**Latin America (17 countries): simple average of the distribution of employees by activity sector and sex, national total, 2011** [a]
*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] Employees aged 15 and over. Thirty-one rural areas were surveyed in Argentina. Data refer to 2011, except those for the Plurinational State of Bolivia and Nicaragua (2009) and El Salvador, Honduras and Mexico (2010).

There are significant differences between the countries of the region. For example, the Plurinational State of Bolivia has highest proportion of women working in the agricultural sector, at 31%, followed by Peru with just under 24%. By contrast, Argentina and the Bolivarian Republic of Venezuela reported less than 2% of women employed in agriculture. Most countries reported extremely low rates of female participation in the mining sector; the largest proportion occurs in Chile, followed by Colombia, where the difference between the proportion of men and women employed in the sector is slight.

**Figure II.10**
**Latin America (simple average, 17 countries): distribution of working women by sector of activity, national total, 2011** [a]
*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] Working women aged 15 and over. Thirty-one urban areas were surveyed in Argentina. Data refer to 2011, except those for the Plurinational State of Bolivia and Nicaragua (2009) and El Salvador, Honduras and Mexico (2010).

As mentioned earlier, in most countries the services sector employs the greatest number of women, with percentages exceeding 40% (over 50% in Argentina and Uruguay).

## B. Women in rural areas and indigenous women

This section addresses the heterogeneity of the region's women, through the use of household surveys and population censuses.

### 1. Women in rural areas

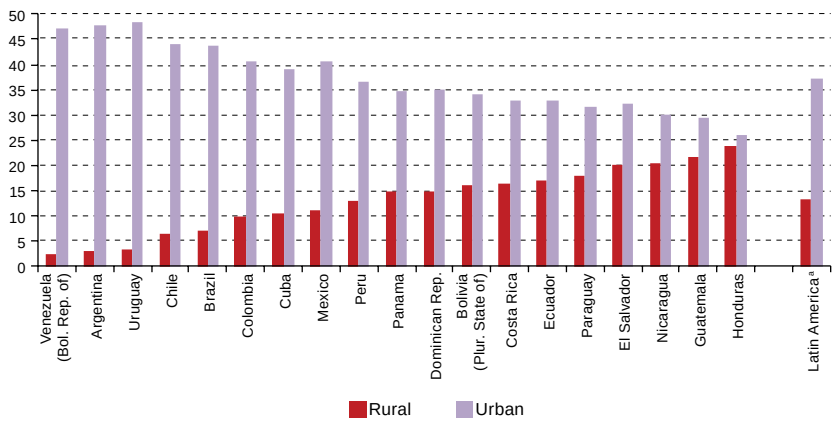
There is a close link between women's employment status and rural poverty. In particular, a growing proportion of women are engaged in temporary work, noted for its lack of job security. While poverty has fallen sharply since the 1990s, there remain significant geography- and gender-related inequalities, since women in rural areas have fewer job prospects, lower income, limited access to social security and an excessive burden related to the uneven distribution of domestic and care work, both within households and in society as a whole.

Women living in rural areas generally have less economic autonomy than those in urban areas. The proportion of women without an income of their own is 30.4% in cities, while this rises to 41.4% in the countryside. In urban areas, the percentage of women in this situation has been decreasing systematically over time, outpacing rural areas where the gap is wider and the percentage is falling more gradually. All studies on wage gaps in the region have reported that rural and indigenous women face structural disadvantages due to gender inequalities when accessing the labour market, certain types of jobs, and income.

In Latin America, women living in rural areas account for 9.9% of the total population. There are significant differences from one country to another, however. In Argentina, the Bolivarian Republic of Venezuela and Uruguay, rural women represent less than 4% of the population. At the other end of the spectrum, the figure exceeds 20% in Honduras, Guatemala and El Salvador. Honduras is a particularly striking case, since rural and urban women account for a very similar proportion of the total population.

Unfortunately, population projections and estimates on urban and rural segmentation are not disaggregated by sex in Caribbean countries. The exception is Haiti, where women in rural areas account for 25.8% of the population.

**Figure II.11**
**Latin America (simple average, 19 countries): women as a proportion of total population, by geographical area, 2010** [a]
*(Percentages)*

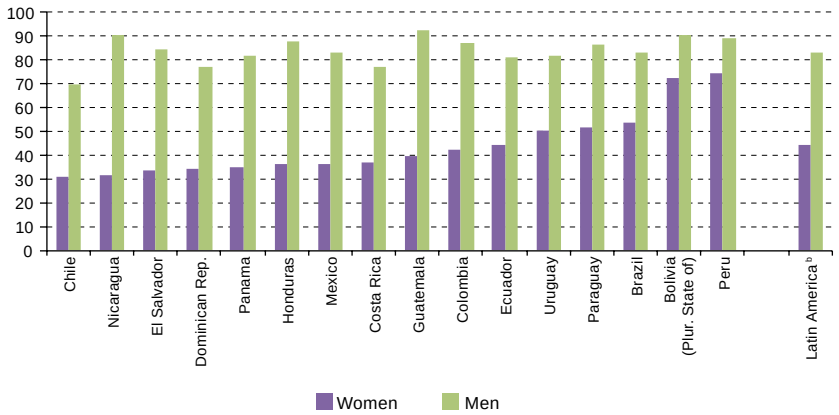



**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC. "Long term population estimates and projections 1950-2100. The 2012 Revision" [online] http://www.eclac.cl/celade/proyecciones/basedatos_BD.htm.

[a] Urban and rural population projections and estimates according to five-year periods, 1950-2050.

The labour-market participation rate for rural women is over 40%, indicating a substantial proportion of women in the labour market, but still with a gap of almost 100% relative to the male participation rate in rural areas. Peru and the Plurinational State of Bolivia have the region's highest proportion of rural women in paid work, and are also the countries that show the smallest gap between women and men on this indicator. Chile has the lowest proportion of rural women in paid employment or actively seeking it, followed by Nicaragua and El Salvador (around one in three in each country). The figures for men and women diverged most in Nicaragua and Guatemala, where more than 90% of rural men formed part of the economically active population, compared with 32% and 39%, respectively, of women.

**Figure II.12**
**Latin America (16 countries): labour-market participation rate in rural areas, by sex, latest available data** [a]
*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] Population aged 15 and over. Data refer to 2011, except those for El Salvador, Honduras and Mexico (2010), the Plurinational State of Bolivia and Nicaragua (2009) and Guatemala (2006).
[b] Simple average excluding Guatemala.

Rural women generally have more limited access to support networks and lower provision of health and care services. In addition, they often have to assume tasks inherent to the rural milieu, such as carrying firewood or water, and they have to cover longer distances, often without public transport services. They also lack infrastructure and technologies to help them with household tasks (electrical installations, sanitation and drinking water, washing machines and vehicles).

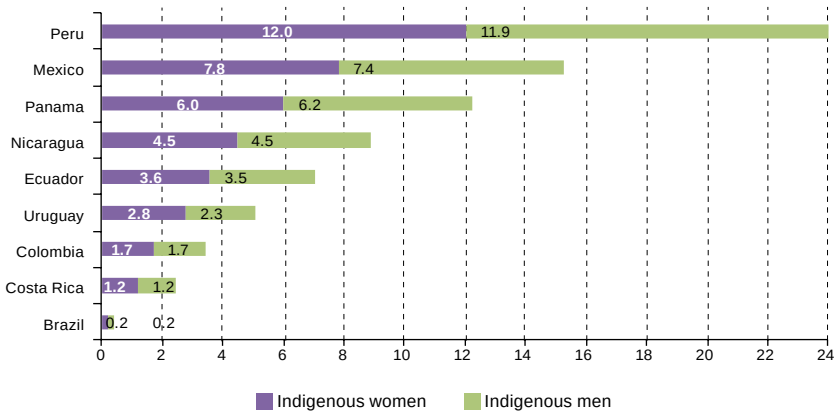
These aspects should be kept in mind when discussing and formulating public policies that include women living in rural areas, which should provide them with opportunities to fully integrate into the labour market and to access the benefits of development.

## 2. Indigenous women

The region's indigenous population has a higher poverty rate and more limited access to public services, reflecting the persistence of significant inequalities related to ethnic origin. Illiteracy rates among indigenous women aged 15 and over can be four times those of non-indigenous women. In both urban and rural areas, indigenous illiteracy is more common among women than men, and on average women receive fewer years of schooling. This social gap limits the potential for better labour-market integration among indigenous women. Low levels of education are at the heart of this problem, and must be addressed in order to close the gap, which is also a factor in social and economic discrimination and acts as an obstacle blocking the way out of poverty (Ortega, 2013).

Population censuses were used as the source of information on indigenous women. These databases provided the basis for calculating certain indicators that include the activities carried out by indigenous women in the region. The censuses used were those conducted in Colombia and Nicaragua in 2005, Peru in 2007, Brazil, Ecuador, Mexico and Panama in 2010, and Costa Rica and Uruguay in 2011.

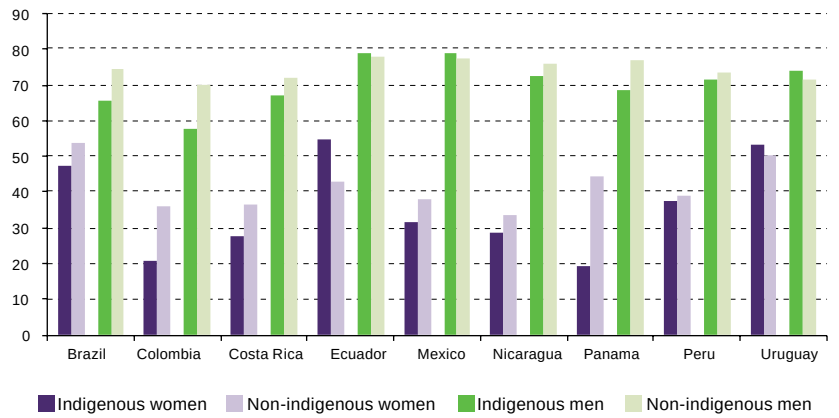
**Figure II.13**
**Latin America (9 countries): indigenous population as a percentage of total population, by sex**
*(Percentages)*




**Source**: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of data from population censuses.

Of the nine countries with available census information, Peru had the highest proportion of indigenous women at 12%, followed by Mexico and Panama. The country reporting the smallest proportion was Brazil, with just 0.2% of the national population. There was no difference in the ratio of men and women with this ethnic self-identification.

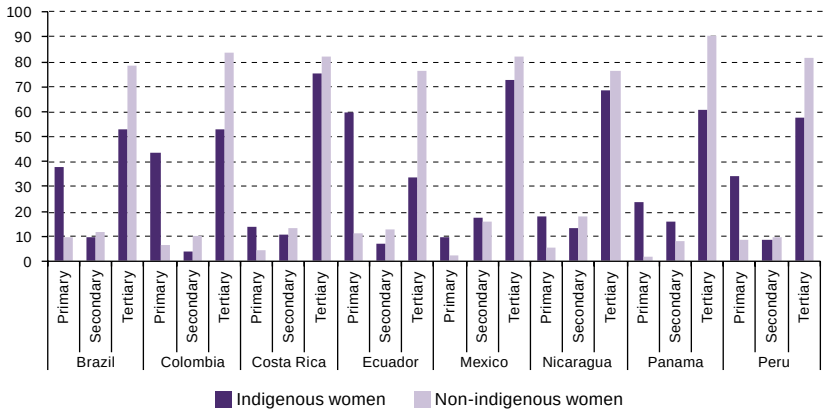
**Figure II.14**
**Latin America (9 countries): labour-market participation rate by sex, ethnicity and country, latest available census data [a]**
*(Percentages)*




**Source**: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of data from population censuses.
[a] Population aged 15 and over.

The labour-market participation rates of indigenous and non-indigenous men and women revealed a smaller disparity between the male groups. Male participation rates are above 65% in all cases (except that of indigenous men in Colombia) and the differences between indigenous and non-indigenous men are not especially marked (except in Colombia). However, the data for women are more varied; some participation rates for indigenous women are extremely low, as in Panama (19.3%), while other countries, including Uruguay and Ecuador, reported rates close to the regional average. There is also a substantial gap between the participation rates of indigenous and non-indigenous women, as in Panama, where the difference is 25 percentage points.

**Figure II.15**
**Latin America (8 countries): working women by economic sector, latest available census data [a]**
*(Percentages)*




**Source**: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of data from population censuses.
[a] Population aged 15 and over.

Regarding the economic sectors[3] in which indigenous women work, a large proportion work in the tertiary sector, while the percentage of indigenous women in the primary sector exceeds 30% in several instances. Ecuador is the most extreme example, with six out of ten indigenous women employed in the primary sector and one of the region's widest gaps, of almost 50 percentage points, between indigenous and non-indigenous women.

The reality appears somewhat different in Costa Rica and Mexico, where a sizeable majority of indigenous women work in the tertiary sector and the gap with non-indigenous women is not as pronounced. The hypothesis behind these figures is that indigenous women have a stronger presence in urban areas, allowing them to find employment in services sectors unrelated to agriculture or mining.

**Figure II.16**
**Latin America (8 countries): working indigenous women by occupational category, latest available census data [a]**
*(Percentages)*


**Source:** Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of data from population censuses.
[a] Population aged 15 and over.

[3] The primary sector is made up of economic activities related to the transformation of natural resources into unprocessed primary products. The main activities in the primary sector are agriculture, mining, livestock production, forestry, bee-keeping, aquaculture, hunting and fishing. The secondary sector brings together manufacturing and cottage industries, in which goods originating in the primary sector are transformed into new products. It also covers the producer goods industry, as well as artificial raw materials, tools, machinery and others. The consumer goods industry is also part of the secondary sector, as is the provision of community services. The tertiary sector provides services, involving an extensive and constantly expanding range of activities. This diversity ranges from petty commerce to high finance and the State.

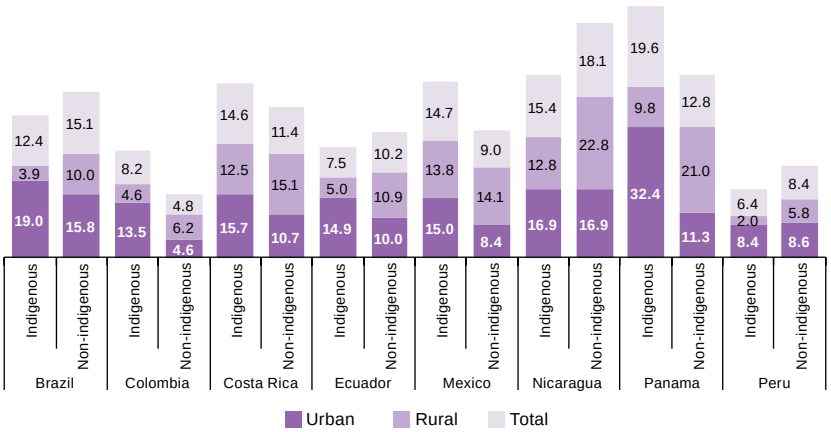
Most of the region's indigenous women are in wage employment, with the highest proportions, in excess of 67%, occurring in Colombia, Costa Rica and Brazil. These are followed by a group of countries in which half of indigenous women are wage employees, and, lastly, countries including Ecuador and Peru, where only one in three indigenous women falls into this category. In Ecuador, most indigenous women are engaged in own-account work; this may be linked to the small-scale production of handicrafts and foods, or to small businesses. Peru also has a significant proportion of women who work unpaid in family businesses or shops. Costa Rica is the only country where more than 5% of indigenous women are employers. Knowing the characteristics and the number of employees hired by women-run businesses may be a relevant factor when considering policies and strategies to help them survive and prosper over time.

One sector that has been subject to much study based on several cross-tabulations of variables and inferences is that of domestic service. Panama and Nicaragua recorded the highest proportion of indigenous women employed in domestic service, a situation that is more evident in urban areas than rural areas in the case of Panama. Costa Rica has the third-highest proportion of indigenous women in domestic service although, unlike Panama and Nicaragua, it does not seem to have such large disparities between indigenous and non-indigenous women, or between rural and urban areas.

**Figure II.17**

**Latin America (8 countries): women employed in domestic service, by ethnicity, latest available census data** [a]

*(Percentages)*




**Source**: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of data from population censuses.
[a] Population aged 15 and over.

Recent decades have seen women entering the labour market in growing numbers; however this has taken place in keeping with sociocultural structures which dictate that women are responsible for caregiving. Observing the type of jobs held by women, it is readily apparent that they are engaged in care-related work (such as health, education and social affairs in general) and, to a lesser extent, in technology-related fields. They also work longer hours than men, earn less money for the same tasks, and experience greater stress in view of their overlapping responsibilities. Women living in rural areas and indigenous women face the additional disadvantages of remoteness, lack of transport and accessible communications, and multiple forms of discrimination rooted in ethnic and racial inequalities.

## C. The gender digital divide: Internet access, use and skills

This section provides up-to-date information on the prevalence of Internet use among men and women in 10 countries, allowing a more inclusive and dynamic analysis of how the gender digital divide is evolving. For all purposes, the information used corresponds to microdata from nationally representative official household surveys.

The Internet is undoubtedly one of the biggest technological advances of recent decades. The digital revolution brought about by the availability of ever-more sophisticated computers is expanding into workplaces, homes, educational establishments, and countless other aspects of human life, while reaching more and more people. The benefits of this

change include increased productivity at work (Krueger, 1993), more efficient use of time (Sinai and Waldfogel, 2003; Goolsbee and Klenow, 2006), greater job-seeking efficiency (Kuhn and Skuterud, 2004; Stevenson, 2009), and cheaper access to information on health (Percheski and Hargittai, 2011; Dobransky and Hargittai, 2012) and education (Fairlie, 2005; Beltran, Das and Fairlie, 2009; Fairlie and London, 2012), among others.

As with all innovations and technological advances, the spread of the Internet has not occurred evenly between countries and population groups. Especially in its early stages, the new technology is only available to those who can afford it and who have the skills required to use it. This creates a pattern of Internet use and take-up which reflects patterns of inequality in other significant socioeconomic variables, such as income and education level (Hargittai, 2010).

The evident benefits of Internet take-up and the digital paradigm means that the digital divide tends to exacerbate pre-existing socioeconomic inequalities (Di Maggio and others, 2004). In other words, as the benefits of being connected to the Internet increase, the cost of not connecting also rises. The digital divide may widen even as the size of the population excluded from the information society gets smaller. In this context, it might be argued that closing the digital divide or, more specifically, digital policies aimed at bridging the gap, could help boost the positive effects of the Internet and thus contribute to narrowing pre-existing socioeconomic divides.

In light of the above, many studies have researched how the digital divide is explained by the socioeconomic characteristics of different population groups (Peres and Hilbert, 2009; Grazzi and Vergara, 2011). This is of particular interest in Latin America, a region with high levels of socioeconomic inequality. The gender dimension of the digital divide warrants particular attention, in view of the significant and persistent gender inequality in the labour market (Morrison, Raju and Sinha, 2007, Abramo and Valenzuela, 2005). As yet, only a few studies have examined this aspect in the region (Sánchez, 2010; Hilbert, 2011; Navarro and Sánchez, 2011).

These works give statistics on patterns of male and female Internet access and use in the mid-2000s, and record evidence of a gender digital divide to the detriment of women (in other words, the rates of Internet take-up and use are lower for women than for men). Using different methodologies, these studies reach the conclusion that the digital gender divide is a reflection of the social gender divide. The different positions of men and women in terms of education, income, labour-market participation, and other aspects, explain why a lower percentage of women than of men use the Internet.

The findings presented in this document suggest that there is a persistent gender digital divide in Internet use that places women of all educational levels at a disadvantage. This divide is more prevalent in urban areas than in rural areas and tends to be wider in the middle and upper quintiles of the income distribution. By contrast, in the workplace there is a clear pattern of higher rates of Internet use among women than among men. Men and women use the Internet in different ways: women tend to log on from community access points to a greater extent, with men tending to use the Internet more for entertainment and business, and women for education and communication.

The reported data, like those given by Navarro and Sánchez (2011), show that the prevalence of Internet use is on average lower for women than for men, and that this difference is sharper in urban than in rural areas. The gender digital divide persists when data are grouped by education level, although it is smaller between individuals with a higher level of education. In respect of employment status, there was found to be a higher rate of Internet use among employed women than among employed men. The reported trends suggest that a combination of factors determine the different rates of Internet use among men and women.

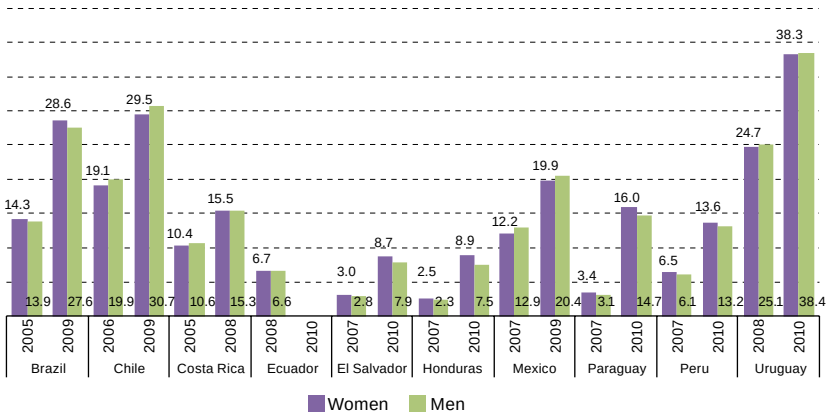
## 1. The figures talk

The information given here was obtained by special processing of CEPALSTAT databases. The level of detail of the survey information varied between countries, meaning that not all of them could be included in the analysis. The countries examined were Brazil (2005 and 2009), Chile (2006 and 2009), Costa Rica (2005 and 2008), Ecuador (2008 and 2010), El Salvador (2007 and 2010), Honduras (2007 and 2010), Mexico (2007 and 2009), Paraguay (2007 and 2010), Peru (2007 and 2010), and Uruguay (2008 and 2010). With the exception of the data for Mexico, which came from a specific survey on information and communication technologies (ICTs), the information was drawn from household surveys that included questions on the access and use of ICTs by individuals and households. All surveys were nationally representative and also contained information on the characteristics of households and individuals (age, education, income, employment status and occupation, among others).

The indicator on Internet access reveals striking differences between countries, ranging from 8.3% of individuals having household access in El Salvador, to over 38% in Uruguay. This country has set in motion several initiatives to promote universal household Internet access, through various schemes to enable connectivity, in some cases offering a free Internet traffic allowance. Antel, the State-owned telecommunications company, is implementing a project to connect every household to the fibre-optic network, installing the access infrastructure that will allow it to meet customers' requirements over the next 30 years. Fibre-optics provide the highest information transmission capacity available for telecommunications, resulting in the fastest Internet access (www.antel.com.uy).

In terms of changes over time, the access indicator has seen notable progress in all countries during the past five years. Taking the simple average for the 10 countries studied, the household Internet access rate rose from 10.3% in the first year with available information, to almost 20% in the most recent data (see figure II.18).

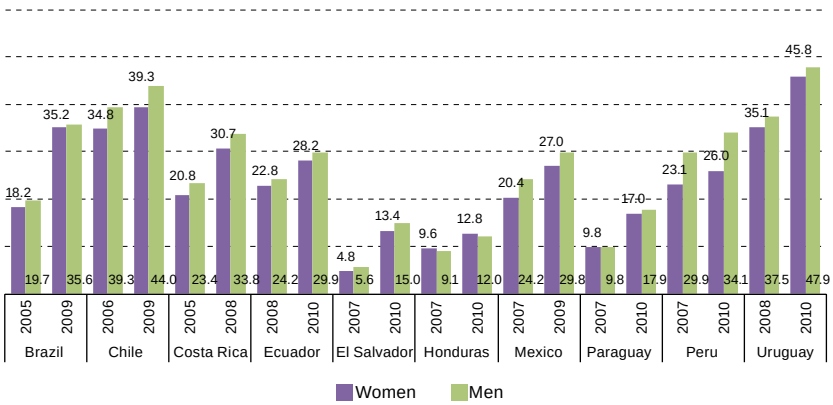
**Figure II.18**
**Latin America (10 countries): household Internet access, by sex [a]**
*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] National data. Data for Ecuador could not be compiled in 2010 owing to questionnaire changes.

Lack of access in the home is not always an impediment to Internet use, as can be seen in figure II.19, which shows that rates of use are somewhat higher than those of household access. Prevalence of use patterns were very uneven here too, albeit less so than for household access. Rates of use also climbed substantially over time, in all countries. The most recent data show that, on average, about 29% of the total population reported using the Internet. The dispersion between countries in relation to this indicator narrowed significantly.

**Figure II.19**
**Latin America (10 countries): Internet use by sex [a]**
*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] National data. Rates of use refer to the percentage of men and women who reported using the Internet from any point of access in addition to the home (workplaces, educational establishments, community centres and others).

Grouped by gender, the data revealed interesting aspects for the study of the gender digital divide. However, male and female access rates were similar in all countries, since households, rather than their members, were taken as the unit of analysis for this indicator.

The data suggest that women are on a similar footing to men in terms of the infrastructure for household access. However, a gender gap begins to open up when considering rates of Internet use among men and women. This can be seen in figure II.19, which shows the percentage of men and women who reported using the Internet in each of the 10 countries with available information.

Despite the rapid rise in the number of Internet access points, the rate of use is lower among women than among men in all countries (except Honduras, which recorded the lowest rates of access and use).

The data are eloquent in suggesting that women benefit from the advances of the digital society, but are lagging behind men in this respect. Nevertheless, if the differences in use are considered in relative terms, the simple average for the 10 countries shows that the female Internet use rate went from 11.1% behind the male rate to 8.5% in the last year with available information.

The findings indicate that, even without mass-scale digital policies incorporating gender perspectives, the general progress of ICTs is itself slowly reducing gaps relating to Internet use, albeit not in absolute terms.

**Box II.3**

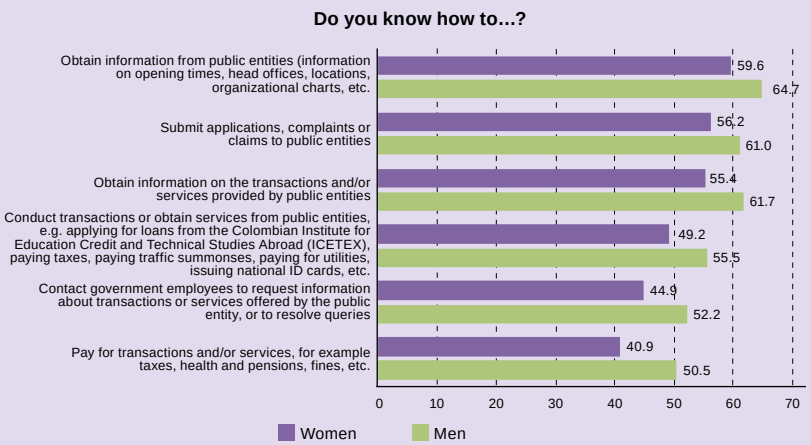
**Women make less use of online government resources**

Women are less familiar with the alternatives provided by Colombia's system of online government, according to the report Online Government in Colombia 2012, an initiative that dates from 2000 and aims to deliver a State apparatus that is more efficient, transparent and participatory. The successes of the Government of Colombia's digital strategy include increased availability of electronic procedures and services, and access to quality information on the websites of all public entities, including the country's municipalities and departments.

Men and women behave differently in their use of the Online Government Strategy, notably in terms of how they access, explore and use the Strategy to obtain information, make arrangements, obtain student loans, contact public entities, and settle taxes and other transactions. Men have more knowledge and experience of using ICTs to carry out procedures. Some 50.5% of men know how to make payments using these technologies, compared with only 40.9% of women.

**Colombia: knowledge of online government resources, by sex**

*(Percentages)*




The gaps in the use of e-government resources, as presented by this study, have a negative impact on women's use of time, since it is less time-consuming to access government procedures and services using ICTs. Another interesting point is the affordability of services. While 57% of men said that they could pay for fixed or mobile Internet, only 48% of women were in a position to do so.

The study also casts light on the use of ICT devices, reaching the conclusion that women use all devices to a lesser extent. The most striking gap was recorded in the use of mobile devices such as cellular phones, tablets and others.

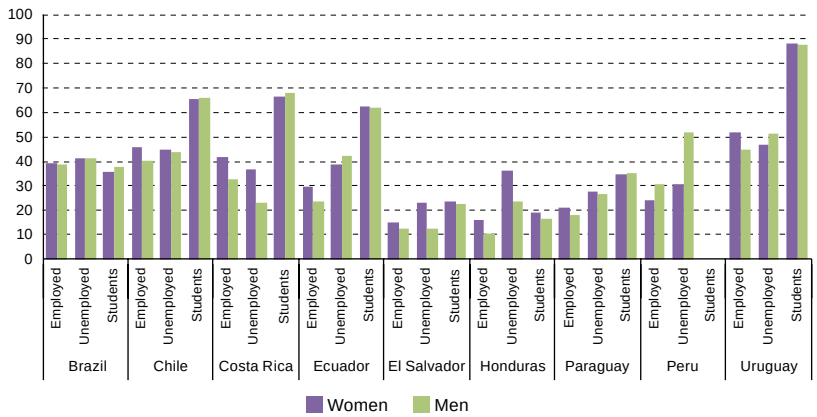
**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the Government of Colombia [online] https://www.dnp.gov.co/Gobierno/BuenGobierno.aspx.

It is also interesting to explore how the gender digital divide in Internet use behaves in different fields. Data are therefore provided below on rates of Internet use by sex, employment status, occupational category, income quintile, educational level and geographical area of residence. This gives insights into how widely the technology has penetrated different population groups with diverse characteristics, as well as the extent to which there are gender differences within those groups.[4]

## 2. Digital natives and working women use the Internet more

Figure II.20 gives the rates of Internet use for three groups by employment status: the employed, the unemployed and students. Figure II.21 shows similar information broken down by occupational category: employers, wage employees and own-account workers.

**Figure II.20**
**Latin America (9 countries): Internet use by employment status and sex**
*(Percentages)*




**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.

The data broadly reflect higher rates of use among students than among employed and unemployed individuals, which may be associated with the age structure of the groups examined (students presumably have a lower average age than the other groups, placing them closer to "digital natives").

The proportion of Internet users among male and female students was very similar in the different countries.

Finally, it was observed that Internet use is more prevalent among employed women than among employed men, in all countries (except Peru). There was no trend to suggest a digital divide between unemployed men and women in the countries analysed.

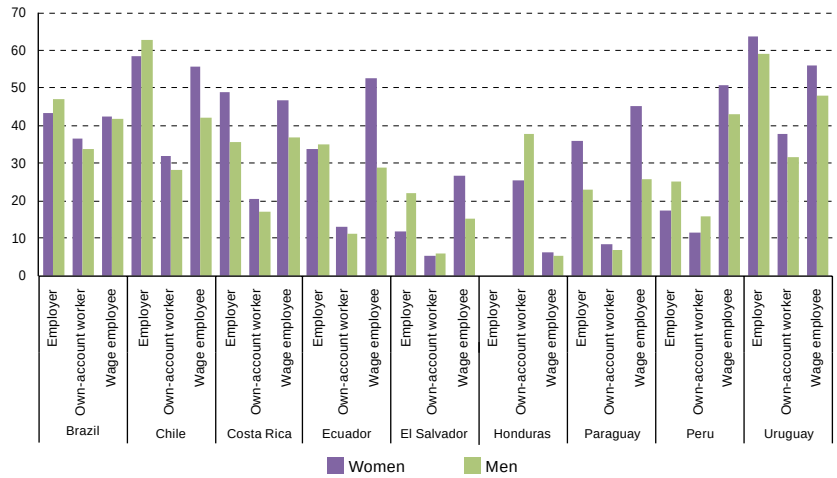
Figure II.21 reveals that women posted higher rates of Internet use than men, a tendency that occurs more among wage employees than among employers and own-account workers.

These data show that where women are successfully integrated into the labour market, for example as wage employees, they outpace men in terms of the percentage of those using the Internet. It may be surmised that this is because, given the relatively low labour-market participation rates among women, ICT skills represent a recruitment advantage for many female wage employees.

The findings could suggest that ICT skills are a powerful tool for many women to successfully enter the labour market. Two situations experienced by women —a general, gender-based digital divide, and a higher rate of Internet use among wage employees— could suggest that there is a vicious circle: more limited ICT access and use adversely affect their chances of gaining employment while, in turn, the exclusion of many women from formal and wage employment tends to entrench the gap in ICT use.

[4] Only the most recent data will be used in this part of the study. It was not possible to access the necessary information for Mexico, so the analysis will consider data from nine countries for the most recent year with available information.

**Figure II.21**
**Latin America (9 countries): Internet use by occupational category and sex**
*(Percentages)*

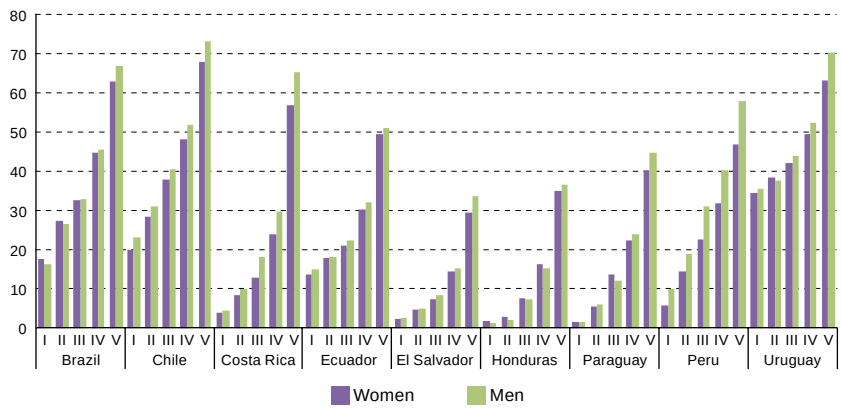



**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.

## 3. Exclusion of men and women living in poverty

There is substantial evidence that Internet use increases in line with household income levels. Figure II.22 reports rates of Internet use by gender and income quintile and shows a positive correlation, in all countries, between individuals' Internet use and the income quintile to which they belong. The directness of this relationship varies considerably between countries.

**Figure II.22**
**Latin America (9 countries): Internet use by income quintile and sex** [a]
*(Percentages)*



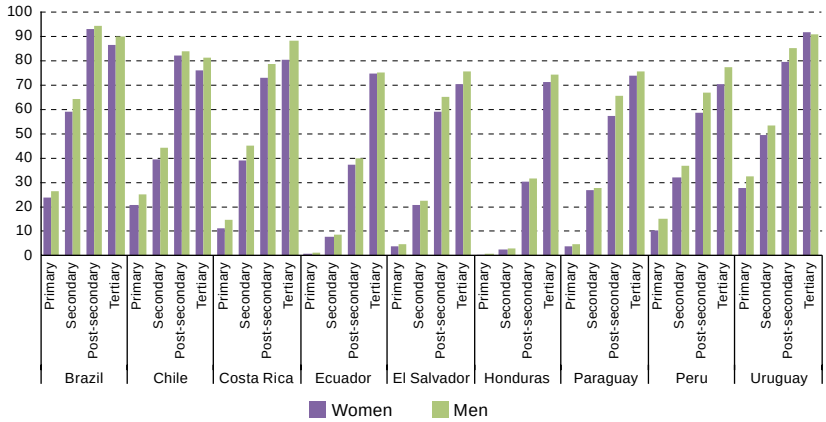

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.
[a] Income quintile based on household data. Calculated on the basis of total income, including independent income and transfers.

For example, in Uruguay, the rate of Internet use in the wealthiest quintile was less than twice that of the poorest, while it was over 10 times as great in Costa Rica, Honduras, Paraguay and El Salvador. There was no defined pattern regarding gender differences in Internet use by income level. Broadly speaking, women in the upper quintiles appear to be more affected by the gender gap. In other words, the gender divide is narrower within groups in which the technology is less accessible, given that poverty limits the opportunities of both men and women to access and use the Internet. This phenomenon, whereby poverty affects both men and women and places them on a more equal footing, is not typical, since poverty makes women much more vulnerable than men in many other dimensions (use of time, violence, access to assets or credit, and so forth).

## 4. More education, more Internet use

The high correlation between education and income makes it unsurprising that rates of Internet use increase among those with higher levels of education. While rates are higher among men than among women for all education levels, in this case the most notable digital divide occurs between individuals with primary education (complete and incomplete) and those who reach tertiary education, with the difference exceeding 50 percentage points.

**Figure II.23**
**Latin America (9 countries): Internet use by education level and sex**
*(Percentages)*

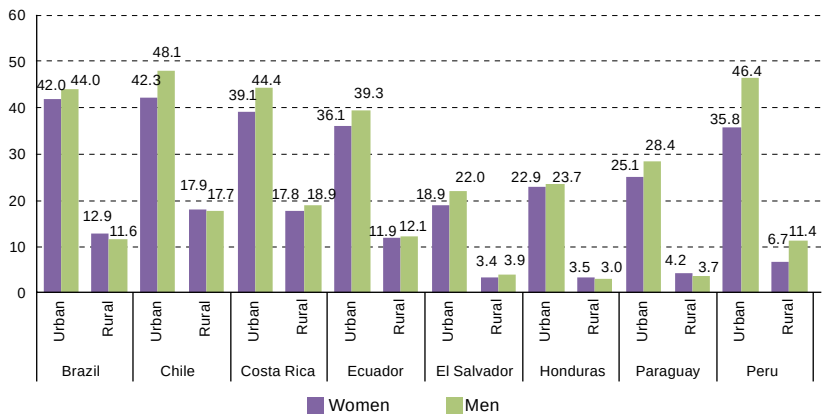



**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.

## 5. The gender digital divide is narrower in rural areas

Figure II.24 shows data on the percentage of male and female Internet users distributed by residence in urban or rural areas, according to the available information. Confirming the findings of previous studies, Internet use is observed to be much more widespread in urban than in rural areas. In El Salvador, Honduras and Paraguay, rates are over five times higher in cities than in the countryside, while in Chile and Costa Rica the ratio is around 2.5, which is still significant. It is striking that the gender digital divide is tending to disappear in rural areas in all the countries but Peru.

**Figure II.24**
**Latin America (8 countries): Internet use by geographical area and sex**
*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.

## D. Concluding remarks

While female participation in employment has risen in recent decades, it has stagnated since the early 2000s and still leaves half of Latin American and Caribbean women outside the labour market. This has strong implications for women's economic autonomy, since it means they are unable to generate their own income; it keeps them in unpaid work and makes it very difficult for them to lighten their burden of family responsibilities in order to improve their well-being.

On the other hand, women face a number of pitfalls in the labour market which mean that they are only able to access certain areas of it. These pitfalls occur in spheres that are extensions of socially assigned tasks relating to care (education, health, and social services) and they appear to hamper women's progression towards leadership and management positions.

Women still constitute an overwhelming majority of those employed in domestic service. This is one of the sectors of the labour market with the least protection and the worst conditions, with little regulation or oversight in most of the region's countries. One in ten working women is employed in this sector, where discrimination relating to migration (internal or external) or to ethnic or racial inequalities is commonplace.

In terms of Internet use, data revealed that a gender-based digital divide persists to the detriment of women, in spite of progress in reducing the digital divide more broadly. This progress is reflected in rising rates of Internet access and use in all countries, and is also visible over time, when comparing figures just a few years apart.

The gender digital divide is more frequent in urban than in rural areas, and is sharpest among older women of all education levels, including those with medium and high incomes. However, the gender gap is reversed among wage employees, with women having higher rates of Internet use than men.

Regarding the public policy implications, the findings suggest that the development of the information society benefits both men and women. However, given the substantial gender digital divide, it is of the utmost importance to tackle not only the digital gap, but also discrimination in the labour market, time use and access to income and assets, so that women as well as men can reap the benefits of the information and knowledge society.

Digital inclusion policies with gender perspectives are needed to enable men and women to access and use ICTs on an equal footing, and to make ICTs a tool for improving those areas where women are at a clear and persistent disadvantage to men.

# Women in the digital economy

The technological revolution fuelled by information technologies is swiftly changing the material basis of society. Economies around the world have become interdependent, introducing a new relationship between the economy, the State and society. The social changes are as dramatic as the technological and economic transformation that is taking place (Castells, 1997). Against this backdrop, women have been entering the paid workforce at a steady pace over the past decade, although progress has slowed in recent years and discrimination persists. According to an International Telecommunication Union (ITU) report, although women are entering ICT-related technical and professional positions, lower-level jobs are still highly feminized. One of the reasons the ICT industry is seen as heavily male-dominated is that most of the high-value, high-income jobs in the sector are held by men. Classic cases of vertical gender segregation are evident in developed and developing countries alike, with women overrepresented in low-ICT occupations. Although women are entering technical posts and senior professional positions, the ITU report found that lower-skilled positions were "feminized". On average, women made up 30% of technical operations staff but held only 15% of the management-level posts and but 11% of ICT strategic planning positions (ITU, 2012).

A general look at the sectors of activity of the economies of Latin America shows that women tend to work primarily in services and commerce. This being so, it seems obvious to enquire into their working conditions. In order to understand the status of women in the digital economy and inform the debate on public policies that can boost their incorporation, three case studies from the world of work that have to do with the production and use of ICTs in the region have been chosen.

First is the status of women workers in Brazil's electrical and electronic industry, one of the most highly developed in the region. It is highly female-labour intensive, particularly for the production of consumer goods such as mobile phones, tablets, computers, monitors and printers, and so forth. Because the sector combines two features of the Brazilian economy (a large proportion of female wage workers and the presence of a robust electrical and electronic industry), it is very useful to examine the status of women in the digital economy in this production sector.

The electrical and electronic industry is typical of the digital economy; as Brazil is showing, this sector's rapid growth is good for employment and for boosting industry in the region. This presents both opportunities and challenges for the employment of women. Although this is a dynamic sector that is constantly changing, women still encounter the usual barriers and discriminatory mechanisms that hinder their performance, such as relegation to positions with little responsibility, less pay for the same work and fewer training and promotion opportunities. In some cases they are even getting worse.

The second case presented in this chapter examines the working conditions of women in a classic ICT-based service: call centres. These centres, which are a key sector in the economy of Panama, have become a model of labour management and job creation in one of the fastest-growing areas of the digital economy. But this subsector has been unable to break through barriers and overcome the career obstacles faced by the women working in it.

The economies of some countries of the region are specialized in global competitive services, and they create conditions that favour the establishment of companies in these services. The characteristics and needs of women in these jobs were studied in order to gain an understanding of the opportunities that are open to them. Call centres have a large footprint in some countries of the region, such as Argentina, Panama and Uruguay. Panama stands out

for its political will and regulations that are especially attractive to companies that offer this service. That is why this document reviews the situation of women working there.

The third case study describes the situation of women using ICTs in production enterprises. The focus is on Peruvian women who participated in an ICT training course for production enterprises in the Republic of Korea and subsequently played a key role in Peru as replicators of their training experience, and on the potential for replicating the small and medium-sized business generation rationale through the intensive use of ICTs.

Identifying the process whereby female-led micro- and small enterprises have incorporated ICTs makes it possible to analyse the opportunities generated by strategic use of and specific training in ICTs, thereby enabling a leap from precariousness to stable enterprises with promising prospects.

## A. Opportunities or more of the same? Women in the electrical and electronic industry

Developing the electrical and electronic industry is, at least for some countries of the region, an important component of structural change because it means enhancing production structure efficiency. This growing trend is borne out by the recent performance of the sector and the emergence of two global macrotrends: (i) the digital inclusion of a large contingent of the population that was outside the information society; and (ii) the increasing incorporation of electronics and electronic components in all other industrial goods, driven by innovation and new functionalities.

Brazil is, along with Mexico, one of the countries of the region with a major electronics industry. Both trends can also be seen in the countries of Latin America that do not produce electrical and electronic goods; they must solve the problem of supplying such goods, either by planning for and investing in production or through imports. While all countries face the consequences of both macrotrends, those where this industry does operate do indeed open up job opportunities for women.

Studies show that Brazilian industry is gradually introducing new patterns of innovation, anchored in local construction of an ecosystem with a strong local engineering component. Information technology represents half of all billings in the electric and electronics industry and mainly includes desktops, notebooks and tablets. Production of tablets has increased exponentially, outstripping the other two products. In telecommunications, production of smartphones has also seen swift growth and outdistanced the manufacture of traditional mobile phones in a trend that is likely to continue.[1]

The consumer electronics manufacturing industry in Brazil is primarily based on assembly plants that use imported components. This puts considerable pressure on the trade balance in that sector, because half of the electrical and electronics imports in 2011 and 2012 (projected) were components. Approximately 63% came from China and the rest of Asia.[2] This imbalance is the target of Brazil's current industrial policy, which is implementing an array of instruments to develop a local import substitution industry that draws heavily on local engineering. For example, late 2012 brought a commitment to invest in building a sixth Foxconn plant to make Apple products and all the requisite components such as cables, cameras, touch screens, LEDs and circuit boards. The only components the plant will not make are the thin film transistor (TFT) devices that improve image quality. Since its announcement in 2011, this investment has sparked heated debate in Brazil as to the most appropriate industrial policy for structural change in the local development of the electronics industry and other knowledge-intensive sectors. In short, Brazil's electrical and electronic industry is the focus of industrial policy seeking a more efficient production structure. This policy push is so sweeping that an examination of the status of Brazilian women working in the electrical and electronic industry casts light on the challenges that come with the inclusion of women in production areas of the digital economy.

With foreign direct investment pouring into Brazil's electrical and electronic sector, the government is deploying measures to ensure a spillover effect for the local electronic components subsector. Accordingly, the sector policy

1 The world's leading makers of consumer electronics have production facilities in Brazil. Among them are LG, Motorola, Sony, Samsung and Nokia and, since 2003, the Taiwanese multinational Foxconn, which is the world's largest electronic manufacturing service provider. Foxconn sells its services to companies like Apple, Cisco and Dell.

2 According to projections for 2012, electronic component exports amounted to US$ 3.72 billion while imports under the same heading totalled US$ 23.159 billion (ABINEE, 2012).

being implemented by Brazil (the Bigger Brazil Plan 2011-2014) or by any other country turning to such policies must consider the conditions in which women are entering the sector. The point is to prevent and protect them from potential job loss and from being sidelined from technological skills. Industry conditions should not limit use of women's labour to the stereotypical dexterity, coordination and concentration that automation and robotization are making more and more dispensable.

Prior research has explored the status of women in Brazil's electrical and electronic industry (Hirata, 2002; Oliveira, 2006) and highlights the flow of women into the sector. But not all of the findings are encouraging: while women are entering the formal labour market in a strongly trade-unionized industry, they are doing so in less-skilled areas and performing tasks that are more repetitive and involve lower levels of creative and professional performance.

In the recent past, something similar happened in the export processing industry, which was considered a competitive area with job options for women. Most of this industry's facilities are in Mexico, Central America and the Caribbean, thanks to the low cost of labour and their location advantage with respect to the United States market. But they contributed little to overall job creation, with low-skilled and low-wage jobs. This is a pattern of low-quality employment generation that, combined with the lack of policies of care, can have —and replicate— negative impacts for equality.

With automation, companies have cut their workforce (Oliveira, 2006) and replaced many male workers with women while job content has diminished and work has been simplified. Technical maintenance tasks are performed by technicians and engineers (primarily men); more routine direct production tasks are performed by women. There is, unquestionably, a strong association between work done by women and Taylorized jobs. In Brazil's electrical and electronic sector[3] the workforce has become highly feminized, but women have lower technology-content jobs. This also happened in the countries of South-East Asia in the early stages of structural change driven by exports of technology sector goods. In these countries, the trend is now toward technology intensification, and it is correlated with workforce defeminization in sectors with higher technology content.

Horizontal segregation, which is a useful concept for studying the labour market, refers to the overrepresentation of women in certain occupations that are usually identified as "women's" work. The classification of occupations as somehow "female" generally depends on the context but is usually reflected in a high participation of women in the tertiary services sector, primarily in activities that are associated with reproductive tasks as in the fields of education, health, personal services, care and domestic employment (Giosa and Rodríguez, 2010). This has been studied extensively as a feature of women's labour market engagement. The information available on the electrical and electronic industry shows that horizontal segregation is still a common form of production organization in this sector of activity.

In the electrical and electronic industry, as in the maquila industry, patterns of horizontal segregation of women are reproduced, placing women in positions with few technological requirements and the lowest wages. In this case, horizontal segregation comes on top of stereotypes that characterize women as people with better manual dexterity and fine motor skills, making the assembly line —where the positions are the lowest rungs on the company's organizational ladder— the "best" place for them.

As the technology content of the sector intensifies, women can be excluded from the new jobs created. In one of the companies surveyed, this is clear from the breakdown of job descriptions and what the women working in the assembly plant had to say during in-depth interviews.

## 1. Work in assembly plants

The technical division of labour at the company's plant entails three production areas: front end, back end and the corrective action request (CAR) area.[4] Most of the plant's workers are at the back end. Each device goes through the front end, then the back end, and then the quality control station. Those that pass quality control are sent to the packaging area, whereas assembled devices found to be defective go to the CAR area for repair.

[3] At present, Brazil's electrical and electronic sector seems to have a high percentage of women. According to data from the Inter Trade Union Department of Statistics and Socioeconomic Studies (DIEESE) and the National Confederation of Metalworkers of the Consolidated Workers' Union, in 2009 women represented 33% of the sector but earned 32% less than men on average.

[4] The technical division of labour is the breakdown of production tasks within a company into subsets of specialized tasks assigned to individuals or groups of individuals. In addition to the three areas mentioned, there are technical support tasks (engineering and maintenance).

Table III.1 describes the basic features of each area of production. The printed circuit boards are made in the front end. In the back end, the devices are assembled, putting the circuit boards together with the other components, and the devices are tested. Devices that test defective are sent to the CAR. Most front-end workers are men; back-end workers are mainly women. In the CAR centre, men are the technical analysts of defective devices; women perform the repairs.

**Table III.1**
**Production organization at a plant**

| Front end | Back end | Corrective action request area |
|---|---|---|
| The printed circuit boards that are part of the electronic device are fabricated. This phase of production is the plant's bottleneck, in the sense that it determines the final volume of finished products. | The circuit boards made in the front end are inserted into mobile phones, tablets and modems on the back-end assembly and case line. | If testing reveals defects or other problems with the assembled device, it is sent to the in-plant repair centre. |
| Each front-end assembly line has four operators —mostly men— who turn out an average of 90 boards per hour in an entirely automated process. | Each assembly line has some 60 operators —mostly women— who produce an average of 300 to 350 devices per hour in an entirely manual process. | The device is checked by an electrical and electronic technician (almost always a man), who identifies the problem and routes the device to a repairer (almost always a woman). |
| From the front end, the circuit boards go the warehouse, where they are catalogued and then routed to supply the back end. | At the last back end station, assembled devices are tested in an entirely automated process. | |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of interviews conducted as part of the study on women employed in the electrical and electronics industry, 2012; and Leite and Guimarães (2012).

Running through the technical division of labour at the company is the sexual division of work (Kergoat, 2000): men are assigned tasks associated with production —which equate to functions with greater social and economic value— and women are assigned activities associated with or arising from reproductive roles. This form of social division of labour has two organizing principles: the principle of separation (there is men's work and women's work) and the principle of hierarchy (men's work is "worth" more than women's work). As with other forms of the social division of labour, the sexual division is neither rigid nor unchanging. While the organizing principles are the same, the modalities (such as the concept of reproductive work, women's place in paid work) vary greatly over time and from place to place. The importance of this notion is that the sexual division of labour can be changed through a variety of public policies, including labour and production policies based on an organizational and business analysis with a gender perspective to promote transformation of the way that work is currently organized as well as the underlying assumptions.

Jobs in the electrical and electronic industry requiring technical skills (in the front end and in CAR defect analysis) are mostly held by men; less-skilled back-end positions (assembly and testing) are occupied by women. The pattern is the same in the repair centre, with women being assigned to operational tasks and men to positions requiring more technical knowledge and the men diagnosing defects and determining repair procedures for women to carry out.

Table III.2 summarizes the main tasks that female assembly plant operators identified in each area of production.

**Table III.2**
**Speed and the bodily impact of repetition on women**

| Back end (assembly) | Back end (testing) | CAR (repairs) |
|---|---|---|
| The operators (mostly women) are organized in production teams of up to 60 people.<br><br>Each operator carries out her tasks quickly and repetitively, using, on average, less than five minutes to assemble each device.<br><br>The workers rotate tasks every two hours in order to prevent repetitive motion injuries, even though this involves changing to another set of repetitive tasks.<br><br>Another way to avoid fatigue is to change position, shifting regularly from standing to sitting and back again.<br><br>Some posts are more critical than others because they require more dexterity (for example, putting a lens in a device). These positions are less substitutable than others, so there are operators specializing in them. | Some mobile phones are all tested by computer. This is a general test to see whether the screen, the camera, the focus, the keyboard and the operating system are working. For other mobile phones or devices in general, testing is done in part by computer and in part manually.<br><br>Tests are performed for sound, audio and keyboard; the screens are examined to check for normal visibility; the Internet connection is examined; and overall assembly is checked; and the mobile device microphone, the memory and the charge are checked.<br><br>Almost all of the testing is done standing up. | When the circuit board reaches the women performing the repairs, all of the components have already been welded in place. It has already been seen by the technician who diagnosed the defect and identified the component that needs replacing.<br><br>The repairers remove components and replace them with new ones. |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of interviews conducted as part of the study on women employed in the electrical and electronics industry, 2012.

The female operators say that the requirements for assembly and testing include speed, dexterity, agility and concentration. They regard the repair area as one of the most desirable in which to work, because of the greater technical requirements and better wages.

Focusing on the work done by the women showed that they used the technologies with a purely instrumental understanding of the routine tasks they needed to perform. The operators do not necessarily know why or how the technologies they use for these tasks work: they push buttons, respond to audio or visual signals and insert parts of the devices by hand, with little or no room for generating incremental processes that improve their own work. The training they receive on the production line is confined to a few minutes of explanations and guided practice, but involves no ICT-related skills-building.

Women are hired for specific areas, which become "women's territory", where the skills required for the post are defined as characteristics considered typical of women. This makes it supposedly natural and efficient for women to occupy these jobs.

Skills classed as naturally female bring no recognition or reward in the form of pay. Stigmatizing women as dainty, careful and good with their hands ends up working against them. There is no wage correlative because these characteristics are seen as "given" instead of learned.

Lastly, those skills that are regarded as "naturally female" are perpetuated by an entrenched structure that maintains and reproduces the gender system of traditional models of women's and men's places in society. This helps to strengthen a binary interpretative matrix built by defining what is male and what is female. It is also reflected in the area of production, defining the generally hierarchical tasks performed by men and women and how much they are paid to perform them.

Horizontal segregation and the assignment of tasks as intrinsically "female" put women at a disadvantage in the market. These patterns must be considered in the design of industrial production policies aimed at structural change with equality, with a view to changing them and distributing the ownership of digital production development between between men and women.

**Box III.1**
**Digital Taylorism**

The term "digital Taylorism" refers to a way of organizing work in which tasks previously regarded as unmechanizable, creative or intellectual are codified and digitalized. The result is that human capacity for decision-making and judgement is replaced by software with fixed decision-making protocols. The twenty-first century is the age of digital Taylorism, turning knowledge work into practical knowledge and extracting, codifying and digitizing knowledge into programmes and software that can be transmitted and manipulated by other people regardless of where they are.

Digital Taylorism makes it possible to translate innovation into routines that might require some degree of training to carry them out but do not need the creativity or independent judgement associated with the digital economy. In order to cut costs and assert property rights, businesses are experimenting with new ways to move from knowledge work to practical knowledge.

Digital Taylorism also adds the dimension of the international division of labour based on the rationale that transnational corporations follow in order to build their global skill networks. According to Brown, Ashton and Lauder (2010), transnational corporations are defining their strategies in terms of three options: (i) where to locate their capacity to "think" (usually in developed countries); (ii) what knowledge can be standardized using digital Taylorism; and (iii) how to globalize talent management.

Digital Taylorism is in line with the trend towards full automation of industrial processes and the progress of robotics, which is driving the return of production activities to developed countries.[a] The impact of these changes on the use of women's knowledge and how they use ICTs has not yet been sufficiently studied.

**Source**: Phillip Brown, Hugh Lauder and David Ashton, "Skills are not enough: the globalization of knowledge and the future UK economy", *Praxis*, No. 4, UK Commission for Employment and Skills, 2010.
[a] See for example Krugman (2012) and Marcus (2012).

## B. The classic ICT-based service

The rapid growth of the call centre sector over the past few decades is associated with the expansion of the service sector, which is in turn directly linked to developments in the use of ICTs. The "friendly" women working in call centres provide the classic ICT-based service. In a call centre environment two features of the changing patterns and

the technological revolution behind their growth are clear to be seen: the restructuring of major multinational firms and the reorganization of work that restructuring entails.

In the context of an expanding tertiary economy, call centres have become a model of labour management and job creation and are one of the most dynamic processes in today's digital economy —so much so that a number of papers refer to the men and women working in these centres as " knowledge workers " (Castells, 1996; Bell, 1991).

But others (Kinnie and Purcel, 2000) further distinguish between today's diverse range of call centres according to work-related factors on which their productivity and competitiveness are based. In some, the rule is speedy implementation of repetitive tasks and workforce management systems focused on strict control over workers with little scope for creativity. In others, "relational" work is the basis for negotiation interaction with clients. Del Bono and Bulloni (2010) refer to this latter type of call centres in Australia, Japan and the United States, where there are opportunities for career advancement, professional staff valued for their social skills, and male or female teleoperators who are independent and creative and have significant levels of discretion for work and decision-making.

Call centres belong to an industry that promotes high levels of labour flexibility in order to adapt the work process to new communication technologies and to provide round-the-clock, year-round service. This requires complex and modern forms of work organization in keeping with the wide margins of adaptation that the industry needs, which has an impact on the characteristics of the work performed there (Uribe-Echeverría and Morales, 2010).

As with traditional assembly line manufacturing, in Latin American call centres operators are typically young and female. In six countries in the region, women make up 71% of the call centre workforce (Feinberg and Koosed, 2011).

Incorporating ICTs into production processes has resulted in different strategies for restructuring pursued by companies as labour relations are redefined. The use of ICTs has thus impacted labour structures, led to the creation of new jobs and identified the training required for them, among other changes.

To fully understand the status of women working in call centres in Latin America, the conditions in which Panamanian women work in such locations were examined.[5] Panama has drafted specific regulations for call centres: a law to attract this type of business to the country was enacted in 2011.[6] This law includes tax, fiscal, labour and immigration incentives aimed at promoting the development of the industry. Call centre companies are exempt from direct and indirect taxes, contributions, charges, duties and fees, and they enjoy the benefits established by the Free Zone Act. According to labour regulations, export market fluctuations that lead to a considerable loss in sales volume provide justifiable cause for terminating an employment contract. In addition, by law, call centre activities may not suspended by strike action.[7]

In addition to legislative incentives, Panama has significant advantages that attract call centres to the country. First, it has a strategic geographical location at the point of convergence of six fibre optic submarine cable consortiums, which facilitates communication. Second, the country ranks fifty-seventh out of 142 countries worldwide on the Networked Readiness Index,[8] ahead of Brazil, Mexico, and Argentina, and it ranks fifth in Latin America.

Call centre sector companies in Panama (most of which are subsidiaries of global firms) have established themselves as providers of offshore business services by both outsourcing and insourcing their activities. The three largest companies are themselves multinational corporations or provide services to multinationals. According to Panama's National Public Services Authority (ASEP), between 2011 and 2012 the percentage of women employed at these companies rose (see table III.3).

5 In 2012 a study was conducted on women employed in call centres, along with in-depth interviews of female operators and supervisors at three companies. The study was part of the production of inputs for this document.

6 See Law 32, for the establishment of call centres in Panama.

7 Call centre unionization has been on the agenda in all of the countries where such firms are part of the economy. Trade union efforts and demands that these jobs be classified were particularly forceful in Uruguay and Argentina.

8 The Networked Readiness Index published annually by the World Economic Forum measures how prepared countries are to take advantage of the opportunities offered by ICT. It has four components: the ICT environment (market, policy and regulatory) in a given country, connectivity (digital infrastructure, cost of access, capacities), the use of ICT by the community (individuals, businesses and government) and the economic and social impacts of ICT (World Economic Forum, 2012).

**Table III.3**
**Panama: call centre workers, by sex and year**
*(Number of persons and percentages)*

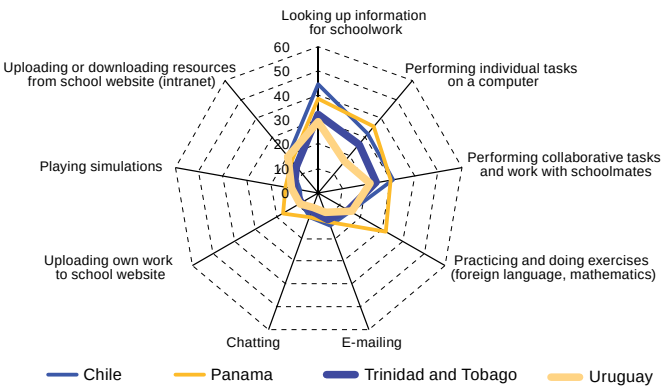
| Year | Women | | Men | | Total | |
|---|---|---|---|---|---|---|
| 2011 | 2 893 | 46.9 | 3 278 | 53.1 | 6 171 | 100.0 |
| 2012 (First half) | 3 908 | 59.0 | 2 713 | 41.0 | 6 621 | 100.0 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from theNational Public Services Authority (ASEP).

According to the National Public Services Authority, which gathers information on the call centre sector, it is only in the past few years that there has been more reliable data on the number of persons employed in the sector. Employee numbers are estimated to have declined since 2008; this can be explained by the international crisis because many of the call centres located in Panama have their clients in the United States, where the crisis weakened demand.

An available labour force that knows how to use ICTs and is proficient in English are the key factors for competitiveness in the call centre industry. With regard to the first factor, data from the Programme for International Student Assessment (PISA) on the use of ICTs for studying can be a good proxy for how prepared the younger population is to use ICTs as an educational and professional tool. Data from PISA 2009 (Claro and others, 2011) show that Panamanian students use ICTs at home for homework in a higher proportion than students in other countries of Latin America and the Caribbean that were included in the survey. In fact, Panama stands out from the other countries in almost all uses (see figure III.1).

**Figure III.1**
**Latin America and the Caribbean (selected countries): 15-year-old students using ICTs at least once a week at home, by type of usage**
*(Percentages)*




**Source**: Claro, Magdalena and others, "Aporte del sistema educativo a la reducción de las brechas digitales. Una mirada desde las mediciones PISA", Project Document, No. 456 (LC/W.456), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), 2011; and Economic Commission for Latin America and the Caribbean (ECLAC), Alliance for the Information Society project (@lis, phase 2), on the basis of the Programme for International Student Assessment (PISA), 2009.

Although Panama has human resources well-trained in ICTs, they still represent a bottleneck for call centre development. Driven by a recent period of sustained economic growth,[9] the demand for workers with ICT training is creating supply side pressures because of their relative scarcity. Call centre companies, the State and private-sector actors have all designed strategies to address this issue. Companies are partnering with universities to combine internships and courses to encourage students to start a career path in these firms. This ensures advanced training for filling posts that require greater use and management of technologies. Since some companies do not provide intensive training in the use of technology, these schemes substitute for investment in targeted training.

[9] The Panamanian economy grew 10.6% in 2012, the same rate as in 2011; the unemployment rate, at 4.5%, is down significantly from the 9.8% posted in 2005. See [online] http://www.mef.gob.pa/es/Paginas/Panama-mantiene-crecimiento-economico-.aspx.

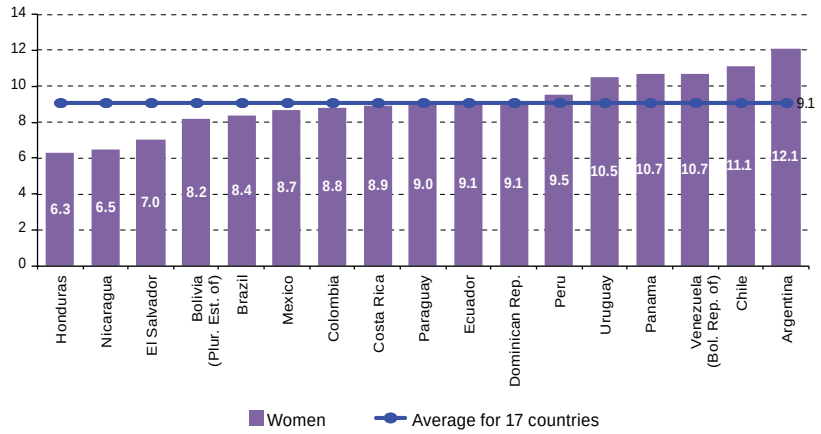
There are also agreements for training teachers and students in the use and management of the technologies used by these companies. The technology fairs that are often held at universities are another strategy for attracting skilled workers to call centres.

Panama is one of the countries of the region with the highest years of education among women, with just over a year above the average for Latin America. In countries such as Honduras and Nicaragua, women aged between 25 and 59 on average have less than seven years of schooling. This considerably lessens their potential for integration into the labour market and their access to jobs that require at least a complete secondary education (see figure III.2).

**Figure III.2**

**Latin America (17 countries): average years of education among women aged 25-59 years, around 2011[a]**

*(Years of schooling)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

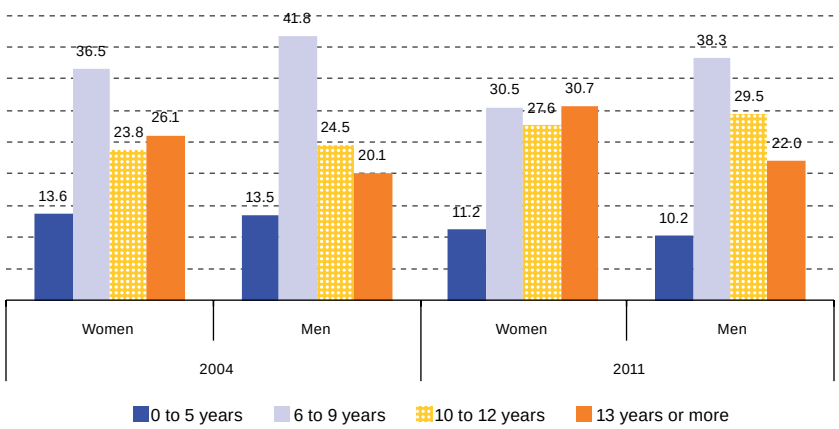
[a] National data except for Argentina, where the information refers to 31 urban agglomerations. Data refer to 2011, except for the Nicaragua and the Plurinational State of Bolivia (2009), and El Salvador, Honduras and Mexico (2010).

While Panamanian women have good education levels, they are still entering the labour market in smaller proportions than men. Between 2004 and 2011 Panamanian women improved their education levels; the gap between women and men with 13 or more years of schooling was over 8 percentage points. Among women, 58.3% have reached one of the top two levels shown in figure III.3 (10 to 12 years of schooling and 13 or more years of schooling).

**Figure III.3**

**Panama: population aged 25-59 years of age, by years of schooling and sex, national total, 2004 and 2011**

*(Percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

Panama is one of the few countries of the region that has a programme for gender equity in science, technology and innovation in its National Strategic Plan for Science, Technology and Innovation (PENCYT) 2010-2014.[10] The priorities for supporting gender mainstreaming in this policy area include actions for strengthening human resources. They provide for, among other issues, training women in and facilitating and promoting the use of ICTs, and they call for encouraging women, at all levels of the education system, to choose science- and technology-related non-traditional careers. The programme seeks to promote women's access to ICTs by fostering the equal participation of women and men in all areas of scientific production and in knowledge production and management.

A 2005 study conducted by the United Nations Development Fund for Women (UNIFEM) (now the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women)) and the United Nations Development Programme (UNDP), in conjunction with the Faculty of Economics of the University of Panama, shows that women accounted for 60% of the workers in areas taking phone calls (operators), 35% in technical support areas and 5% of the workforce among suppliers of communication equipment and networks. These three levels have an upward logic of technical expertise and better pay, which is in keeping with the concept of vertical segregation. As the level of hierarchy and pay increases, the proportion of women in these posts decreases.

According to data from the latest census conducted in Panama (INEC, 2010), 140,059 women have degrees (university or otherwise) in computer science, engineering and related professions. The number for men is 112,435; that is, 55.6% of the professionals are women while 44.4% are men. Within this universe, in information technology areas the proportion of men holding degrees is higher, at 59.2%. Women make up 40.8% of this subuniverse. Encouraging Panamanian women to choose non-traditional careers related to science and technology is a policy tool under PENCYT. If this policy translates into specific action, this would create positive synergy between training for women and the potential for integration into the call centre labour market (see table III.4).

**Table III.4**
**Panama: economically active population by degree level, area of expertise and sex, 2010**
*(Number of people and percentages)*

| | Number of people | | | Percentages | |
|---|---|---|---|---|---|
| **Degree level and area of expertise** | **Women** | **Men** | **Total** | **Women** | **Men** |
| **Total with non-university degree** | **6 131** | **8 501** | **14 632** | **41.9** | **58.1** |
| With non-university degree in information technology | 607 | 1 251 | 1 858 | 32.7 | 67.3 |
| With non-university degree in engineering and related professions | 82 | 2 586 | 2 668 | 3.1 | 96.9 |
| **Total with technical university degree** | **15 333** | **18 126** | **33 459** | **45.8** | **54.2** |
| With technical university degree in information technology | 1 142 | 1 643 | 2 785 | 41.0 | 59.0 |
| With technical university degree in engineering and related professions | 356 | 6 297 | 6 653 | 5.4 | 94.6 |
| **Total with undergraduate degree** | **112 320** | **81 375** | **193 695** | **58.0** | **42.0** |
| With undergraduate degree in information technology | 2 782 | 3 782 | 6 564 | 42.4 | 57.6 |
| With undergraduate degree in engineering and related professions | 1 847 | 8 716 | 10 563 | 17.5 | 82.5 |
| **Total with postgraduate degree** | **6 275** | **4 433** | **10 708** | **58.6** | **41.4** |
| With postgraduate degree in information technology | 146 | 115 | 261 | 55.9 | 44.1 |
| With postgraduate degree in engineering and related professions | 162 | 537 | 699 | 23.2 | 76.8 |

**Source**: National Statistics and Census Institute (INEC), "XI Censo Nacional de Población y VII de Vivienda", Panama City, 2010.

This examination of call centre jobs found clear vertical segregation in how work is organized that hampers upward mobility for women.

As shown by the literature on labour market and gender issues, vertical segregation is not unrelated to the reality of women in Latin America. In their study on development strategies and gender equity, *Estrategias de desarrollo y equidad de género*, Giosa and Rodríguez (2010) show that it is harder for women to get ahead in their careers than

[10] See National Secretariat of Science, Technology and Innovation [online] http://www.fileden.com/files/2010/11/28/3026179/PlanEstrategicodeCienciayTecnologia_PENCYT.pdf.

it is for men. And there is still that "glass ceiling" —the invisible barriers that prevent women from climbing up the career ladder. The clearest indicator of this situation is the underrepresentation of women in executive positions, exposing an unequal return on women's investments in education and training.

Among the barriers that make up the glass ceiling are stereotypes and preconceptions about women on the part of society as a whole, as well as the exclusion of women from informal networks of communication, the lack of opportunities to gain experience in the management of lines of work and hostile business cultures. But above all, women perceive that their promotion possibilities are hobbled by corporate policies that traditionally link women to care work and family responsibilities. Generally speaking, firms do not question this situation or provide support strategies for their male or female employees. They accordingly open fewer opportunities for women on the assumption that they would be less efficient or reliable in executive positions because they need to care for dependent family members. Overall, male bias on the part of area heads or managers is the main reason for the glass ceiling.

Table III.5 shows that the lowest position in the job hierarchy is a level-one operator (also known as a telephone agent), who provides basic customer service. Level-two positions require a more advanced skill set because the services provided by the call centre are technical in nature. Supervisory positions require both technical and human resource management skills.

**Table III.5**
**Call centre job descriptions**

| |
|---|
| **Level 1 operators**: Customer service, sales, technical support (level 1 and level 2). Level 1 involves basic technical support for customers (for example, support for performing a procedure). |
| **Level 2 operators**: Level 2 is more specific and involves providing advice on the purchase of a product and on its applications, for example. This job level is considered technical support. |
| **Supervisors**: Monitoring groups of operators, timing calls and monitoring operator scripts, trouble-shooting, quality control and tracking operator targets. Supervisors are involved in operator training. |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC) on the basis of interviews conducted during the study of women working at call centres, 2012.

As in the electrical and electronic industry, the technical division of labour in call centres overlaps the sexual division of work. According to a former technical support manager, "(…) there is no explicit resistance to recruiting women for certain positions, but there is a cultural pattern that certain positions must be held by men".

Along the same lines, while there is no explicit recognition of the potential for men and women to be assigned to certain positions, it is obvious that there is a division of labour between men and women.

> "(…) our culture means that there is resistance to appointing women to certain technology-related positions. It is not something that you can see, and nobody is going to say it openly, but it is there. People don't say, I don't want a woman in this position, I want a man. But if you stop and think, the vast majority of certain technology jobs are held mostly by men" (female human resources manager).

The women supervisors interviewed also mentioned differences between level 2 technical support and level 1 positions. For the latter, they reported that women are thought to be friendlier and more polite and that these are determining factors for filling these positions.

> "(…) I see more (level 1 women) (…) it's like women are nicer and deal with customers better" (female supervisor).

There is a view that women have more of a certain kind of "social skills and capabilities"[11] that are required to fill jobs involving appropriate interpersonal relations, in this case directly with customers. This shapes certain stereotypes that pigeonhole women's and men's work in the framework of this job structure.

[11] Belt, Richardson and Webster (2002) define social skills as those personality traits required for people who are going to hold call centre operator jobs. These social skills involve a gift for communication and people skills (things like taking care of, understanding and being nice to the other person).

Job descriptions reveal clearly defined tasks for each position. And there are gender-based differences between positions held by women and men. The positions requiring more technological expertise are mostly held by men, and the positions requiring other skills, such as "social skills", are mostly held by women. These skills are not seen as having an economic value; rather, they are considered to be "natural", and women are thought to be more likely to have them. Because these skills are not acquired in a formal setting (as technological expertise is in universities or institutes), they are not appreciated as much and there is no added value attached to them in the workplace.

## 1. In-house training

Technological and organizational changes and competitive pressure all call for new skills. In addition to job training in the use of new technologies, personal, psychological and intellectual skills are needed to adapt quickly to change and allow for controls and job incentives that are completely different from those in the old production model (Yáñez, 2004).

Training provided in call centres can make a difference as to expectations and opportunities for the promotion of women in level 1 operator positions, although that difference varies according to the kind of company and the kind of customers it serves.

Table III.6 summarizes two processes that were described in interviews and that differ in length and content depending on each company's staff training strategy. Training is usually provided at different levels that are closely related to the type of work performed by male and female operators.

**Table III.6**
**Kinds of training provided in call centres**

| Basic training | More advanced training |
|---|---|
| In some call centres, basic training (instead of more advanced training) is the rule. It is often provided at the work station. It is short, because it is thought that practice will fill in the gaps.<br><br>" (...) the training given to the individual and how good it is depends on what the customer wants. There are customers who want us to memorize exactly how we are going to say hello and goodbye (...) There are other clients who tell us, no, say it in your own words as if you were at ease (…)" (human resources manager). | The length of more advanced training varies according to the type of call centre and the product or service that is provided. It can range from three weeks to one month. In some cases, this more advanced training is seen as the beginning of the job itself and is, therefore, paid. The length and content of this more advanced training depend on the job.<br><br>When a new tool arrives, or when there is a restructuring, training is provided first so that the workers can adapt more quickly.<br><br>Advanced training at more specialized levels (level 2) lasts longer because of product specificity and the requisite technological expertise. |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC) on the basis of interviews conducted during the study of women working at call centres, 2012.

For level 1 operators, training can last up to one month and cover basic ICT use for specific jobs. It does not cover the more complex side of the operating systems and applications used. Some call centres acknowledge that there is no scope for formal training for posts at this level. Because the process is highly routinized and controlled, training is provided during the work itself and is rather basic.

Training that does not go deeply into technological expertise but is, instead, focused on understanding the tool that is used helps to reinforce a circle of inequality in which women are placed at level 1 and have no options for moving up to better jobs if they depend entirely on in-house training.

> "(…) university education is encouraged above all else (...) if you were at university, we encouraged you to really go. So there is this programme for reimbursing up to a certain percentage of your university studies, depending on your grades (… ) And we had, at least in my area, a policy that if you were enrolled in a university you had preference for adapting your work schedule to make it more flexible and fit your university studies" (female human resources manager).

## C. Women entrepreneurs in the digital economy use ICTs

Micro- and small enterprises are a major part of the economy of a number of countries of the region. In Peru's economy, for example, they account for 88% of private-sector employment and contribute 42% of GDP. Women make up 40% of the workforce in this sector and 57% of the informal workforce. Given the importance of microenterprises and small businesses, the Peruvian government has made it a priority to promote this sector and has done so through specific labour legislation: Statute No. 1086 to Promote Competitiveness, Formalization and Development of the Micro- and Small Enterprise and Access to Decent Employment. Recent data from the micro- and small enterprise survey conducted by the National Institute of Statistics and Informatics (INEI, 2012) confirmed the importance of women in this sector, given that 37% of the respondents were women.

Every technological revolution holds enormous potential for the creation of wealth and social well-being (Pérez, 2010). However, the difference lies not only in greater or lesser efficiency, but also in the adoption of principles, methods, organizational regimes and new criteria. The extent to which entrepreneurs (women entrepreneurs for the purposes of this document), companies, governments and societies benefit from this potential depends on their ability to tailor the paradigm to their specific goals.

From a regional perspective, globalization maximizes regional, national and local differentiation in both production and markets.

Microenterprises and small and medium-sized enterprises (SMEs) are a key source of employment in Latin America. In general, their job potential for women is two-sided. On the one hand, women are overrepresented in precarious, less competitive enterprises; this can be a roadblock in that it closes avenues for mobility that are open to men. This is related to the burden of reproductive work that makes women responsible for social care and hinders full integration into the public world, as set out in chapter I.

The high proportion of women in smaller SMEs poses a challenge to changing the production structure. ECLAC data show that the obstacles do not lie in the abilities of women entrepreneurs: women in the labour market are generally more educated than men, but this does not translate into equal wages and income. On the other hand, small enterprises have become by definition a space for women. They make it easier for women to reconcile work and family life and, because the workplace is often the home, they help address the lack of public policies for redistributing care (ECLAC, 2010a).

A study by the United States Agency for International Development (USAID, 2007) shows that microenterprises (from 1 to 10 workers) and small enterprises (11 to 50 workers) play a fundamental role in economic activity in developing countries such as Peru. But the capacities of those who lead these companies differ substantially and reflect the gaps between different segments of the population of Peru. In particular, there is an education gap stemming from poverty and the lack of infrastructure in rural areas of the country.

There is no question that microenterprises and SMEs, under certain conditions, can provide opportunities for women to achieve better labour-market integration, either as managers or workers. The key issue is to keep this sector from being exclusively relegated to women and reproducing a labour-market split where women are working in small enterprises and men are employed and building their careers in large companies where the job benefits and working conditions tend to be better. It is in this context that ICTs can become an essential tool for women-run enterprises to build competencies and boost their competitiveness.

The burden of unpaid work that women bear means that, on top of the inequality they face in each country, they enter the market at a disadvantage that has to do with their family responsibilities. Women must cope with distance from commercial centres, insufficient assets of their own and lack of time, which places them at a clear disadvantage when it comes to making their business perform efficiently.

Used strategically, ICTs are tools that can help women-run businesses achieve higher growth and productivity. Accordingly, ICTs are a powerful tool for creating advantages and opportunities. ICTs enable women entrepreneurs to participate more actively in the market economy, to be more competitive and to use the digital economy for social and personal success, especially for those living in rural or remote areas.

But why should ICTs be seen as an especially powerful tool for women? The reason is that women often face constrained mobility and overlapping responsibilities between traditional economic life (paid work) and the care economy (unpaid work). ICTs open an array of opportunities enabling women to negotiate, market and deliver their products, often by offsetting the lack of physical mobility, transport or, simply, a lack of access to the necessary information.

In *Structural Change for Equality: An Integrated Approach to Development* (2012), ECLAC emphasizes the need to strengthen the productivity of smaller enterprises because they account for a significant portion of employment in the region and have great potential for incorporating technology.

The objectives of the project[12] conducted by Peru's Ministry for Women and Social Development (MIMDES), the Asian Pacific Women's Information Network Center (APWINC) and the Inter-American Development Bank (IDB) to enable women entrepreneurs to mainstream the use of ICT in their businesses, improve their performance and replicate the knowledge acquired, required identifying women entrepreneurs with stable enterprises, experience in their respective sectors and capacities to implement the knowledge gained. This ensured that women entrepreneurs who participated in the project had comprehensive business experience, education at the tertiary level, access to and use of ICTs, direct responsibility for their enterprises and seamless linkage with actors at the regional and national levels that would enable them to expand their information and knowledge networks.

The women all agree[13] on the importance of using ICTs to increase their opportunities and expand their markets and contacts, not only regionally but also globally. This consensus on the opportunities that ICTs can provide has led them to adapt their enterprises to the current virtual environment:

> "The sector forces you (to learn how to use ICTs). I was afraid (…). What I have learned is that you have to be fast. The technology is fast, so you have to be fast, too, and respond really quickly."

For these women entrepreneurs, the training trip to the Republic of Korea represented a watershed in how they use ICTs for business:

> "When I went to Korea I had great expectations, but I didn't know that Korea was a developed country, industrially and technologically in all respects. When we saw that all of the teachers used technology in a very practical way, we were astonished. It was an eye-opener (…)"

The women entrepreneurs have been able to take ownership of ICTs, building on the opportunities that they open to business success. Each entrepreneur adapts these tools, which are not tailored to specific business environments, to her needs and capacities and puts them to strategic and creative use.

Although they were already using some of these technologies (such as mobile phones and the Internet) before receiving training, after the training sessions they began to more actively integrate other tools and possibilities for open access for the benefit of their businesses. Many have expanded social networks and online sales capabilities. This tool has been developed primarily through the creation and use of online catalogues and shops.

> "I came back from Korea sure that I wanted to implement an online shopping system (…). I tried to find out what to do in order to use these new media (…). I was very much limited by the cost of setting up an online store. I did some more research and found the Information Technology Chamber of Commerce, which helps you with these things."

This clearly shows the potential for building communication networks and networking with other actors at the local level that can facilitate the development and implementation of this system of online sales and purchases.

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12 The main objectives of the project entitled "Innovative Strategies for Peruvian Women's Participation in Digital Economy: A Pilot Program for Women Entrepreneurs" carried out in 2008 were to promote basic access to ICTs for women and improve the opportunities for them, especially in rural areas, to use ICTs as a tool in their businesses to develop their skills and improve their socioeconomic conditions. The project methodology consisted, first, of training in ICT use in business for Peruvian women entrepreneurs at the Sookmyung Women's University in the Republic of Korea. During a second stage, these women provided training in ICT use to other women entrepreneurs in Peru, in both urban and rural areas. The idea was to create a network of women entrepreneurs and a community of practice of women with ICT-intensive microenterprises and small businesses in Peru.

13 To hear from the women in this project, focus groups were organized for women to share experiences and evaluate the use of ICTs in their enterprises.

This is part of the communication and information capacities of these women entrepreneurs, enabling them to broaden their scope of action because they know where they can turn to grow their enterprises.

For women entrepreneurs, building confidence among potential customers is both a priority and a way to ensure the success of this new sales platform.

> "Trust. Since we work with customers overseas we see that many of them make a trial purchase (…); kind of like I'm going to see how well you do (…); what we have noticed is that we have to meet delivery times, that's what's most important when dealing with Europeans, you have to deliver on time, they aren't patient."

Another important factor is smooth communication with the online customer, in order to build that trust. Telephone communication proved to be useful in this regard.

> "(…) a voice, because it brings you closer, is vital. Social networks and technology can help you a lot, but the feeling you get when you communicate by phone is something else."

> "I have Skype because they called me from other countries (…) it's a more affordable tool and you can talk longer, that's why I got Skype. I mean, it was necessity that made me get those tools (…)"

> "All of our sales are by e-mail, most of them, just the ones that don't really believe in mail call me to verify what they received or to ask specific questions."

Social networks are becoming another product development strategy. Many women entrepreneurs mentioned Facebook as a tool that they have made part of doing business.

> "(…) when I went to Korea I saw that they did use it, that they used another approach (…) just for sales, beyond the personal things we used Facebook for."

> "For example, before the course in Korea we had Facebook (…), but it was there that I learned how to handle it beyond just a personal account and use it like a commercial page (…)"

In addition to social networks, customer databases are another business tool that has made it possible to organize and systematize the amount of information on customers and potential customers who visit business Internet sites, including outside the country.

> "(…) the database lets us be really creative with customer outreach strategies. For example, we have a programme that automatically sends them a message on their birthday."

> "(…) every so often I ask for new updated databases, on potential importers with companies, personal mail (...) For example, a number of embassies answered me through a programme that the Ministry of Foreign Affairs has, where you use a form to say what countries you want to reach with your products; the Trade Offices of Peru at the embassies, they put you in contact with businesses (…)."

Using a mobile phone is crucial not only to communicate more smoothly with workers, but also to be permanently connected to other social networks.

> "(…) mobile phones are very important to be in contact with the people who pick the fruit (...) we distribute mobile phones even in communities (…), because there is no other way to communicate because they are very remote communities."

> "(…) the mobile phone is essential (…) I check my mail and if I see something interesting from Facebook, I go to the computer."

## D. Concluding remarks

In general terms, the status of women in the digital economy is governed by factors that make up the gender-based social inequalities that prevail in other areas as well. This is exacerbated in a context where full integration into the information society and knowledge is more and more important for personal and job development. Increasing numbers of women and men are exposed to the new tools of the digital economy and more demanding requirements for basic and advanced training and keeping up to date in the workplace. It is for this reason that the inequalities that now shape linkages with the labour market, and, more specifically, with jobs in the digital economy must be addressed; otherwise, the gaps women face will deepen and only some women will benefit from the new paradigm.

There is a sexual division of labour that reproduces in the labour market a certain hierarchy and allocation of resources that is not conducive to the development of women. This is clearly seen in the fact that women enter at the less skilled levels and face greater difficulties in getting past certain thresholds, often associated with stereotypes that trap them in less qualified activities. Despite these characteristics, women have also had a positive experience with the use of ICTs for strengthening their enterprises.

Training and vocational training are undoubtedly a promising way to ensure quality jobs for women in these new scenarios, as it is necessary to build digital capacities and skills to ensure the integration of women in positions with more technological content. But it seems unlikely that this will happen if it is left to market forces alone, since the hegemonic gender system will tend to maintain the gender segregation that works for it. It follows that public policies on production development should focus on gender inequalities and targeted mechanisms to address these inequalities in the sector.

When women have access to training in the use of ICTs for business, the results are successful. In the case studied, women have been able to identify development potential, expand their businesses and improve the outcomes. In this environment, training expanded the possibilities for production development in the framework of the digital economy. ICTs can be a powerful tool for women, because they open an array of possibilities for negotiating, marketing and delivering their products. But this tool is not enough without the support of policies on access to credit, allocation of assets and training for business distributed equitably between men and women.

# Women in the world of science and knowledge

Examining the factors that help or hinder the professional careers of women scientists, especially in male-dominated fields like information and communications sciences and technologies, helps us to understand how women are entering the workplace in the information and knowledge society from a position which is characterized by traditionally male roles and behaviours.

For this we must look at the jobs held by women scientists in industrial research and development (R&D), and at female professionals in science and technology and in the new science-related professions. These new professions lie at the intersection between science and economics and involve a mixture of scientific and business functions such as technology transfer, incubation and entrepreneurship (TIE).

By understanding the situation of Caribbean and Latin American women in the fields of science and technology, policies and good practices can be established to achieve gender equality in these areas and benefit scientific and technological development.

**Box IV.1**
**It's not every day you get to plan a mission to Mars**

She travels 40 kilometres to work and 40 back home again every day. She doesn't mind because, as she says with pride, her team attends multiple meetings and analyses the agreed time schedules and technical risks of her project to make sure everything goes well. After all, it's not every day you get to plan a mission to Mars.

Sandra Cauffman is an electrical engineer, a Costa Rican working at the National Aeronautics and Space Administration (NASA). She is Deputy Director of the Mars Atmosphere and Volatile EvolutioN (MAVEN) project. Her career at NASA has been a brilliant one, but the story of how she got there is no less so.

"In my experience, being a woman in engineering is different from being a man in engineering. I know I'm generalizing and that men do make an effort, but women's abilities aren't really acknowledged. At least, not until they're seen in action. Although there's been a lot of progress in women's involvement in these fields, there's still a long way to go. It's hard in the United States and I'd venture to say it's even harder in Costa Rica. My advice to women in these fields is to learn to speak out and stand firm. You have to be firm about what you want and not take things personally. Sometimes you have to ignore people's negativity and stay positive and keep working to reach your dreams. You can make your dreams come true if you put in the effort, but sometimes you have to make sacrifices."

**Source**: Ministry of Science, Technology and Telecommunications [online] http://www.micit.go.cr/index.php/noticias-de-interes/1337-entrevista-me-parece-mentira-que-lanzaremos-la-mision-a-marte-a-finales-de-ano.html.

Review of data over the entire life cycle clearly shows that girls and young women have fewer incentives and opportunities to obtain the education and information needed to pursue a career in science and technology, and the women who work in this field dominated by male roles, images, and stereotypes are less likely to be promoted, since women are more concentrated in positions at the lower end of the occupational hierarchy in national science and technology systems (UNESCO, 2007).

Women in the region have gradually gained access to equal opportunities in education at different levels and more and more of them are earning university degrees and academic distinctions in various science and technology disciplines (UNESCO, 2007 and 2012). However, this is not translating into an equal increase in female participation in the science and technology workforce. The paths of men and women tend to diverge over the course of their careers inasmuch as women are promoted more slowly and leave jobs in science and technology more frequently to work in other fields. Women with the same level of education and academic training do not have the same work opportunities or the same professional careers and salaries as their male colleagues.

> *"Although women do not have the same facilities as men to do science anywhere in the world, it is even more difficult for women to become leaders in science in our region. While I am aware that motherhood and child rearing are very important factors to consider as possible constraints on women's progress and leadership, I don't believe that this is the only factor. I believe that there are very deep undercurrents probably having to do with women's lack of power and freedom to create and their talents going unrecognized".*
>
> Cecilia Hidalgo, National Natural Sciences Award 2006, Chile
>
> **Source**: Seminar "Brechas de igualdad: Género, ciencias y academia en el siglo XXI", Santiago, Chile, University of Chile, 2010.

The first differences and inequalities between men and women in science and technology arise in doctorate and postdoctorate courses, which are a watershed for entry to a scientific career. The largest gaps open up during the professional career itself, however.

Women tend to be more sharply underrepresented in science and technology than in other professions, and the field of engineering in particular has been noticeably resistant to change in gender ratios, despite several decades of efforts by the public and private sectors to promote the participation of women in this field. This is true of ICTs, as well, a relatively young field, that was initially expected to be less compromised by the traditional images, stereotypes and structures of gender discrimination that block the advancement of women in engineering and technology fields.

> In Argentina, gender occupational segregation is very marked in software development firms: women represent 41% of heads of department and supervisors, but only 21% of directors or managers. And when they do reach a management position, their salaries do not match those of their male colleagues. "Pay gaps (for management and directors) are very large, since women managers earn virtually half of male managers' pay."
>
> **Source**: Patricia Peña and others, "Las mujeres y las tecnologías de la información y las comunicaciones en la economía y el trabajo" (LC/W.476), *Project document*, Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), 2012.

## A. Progress and imbalances in science and technology

Many girls and young women in the region have the capacities and the talent to become highly skilled scientists and engineers, participate in technological innovation and contribute to development and general well-being. The figures for women's access to all levels of education are good in Latin America and the Caribbean (UNESCO, 2012). The region's literacy rate is high for both women (91.7%) and men (90.3%). And while parity has been reached in primary schooling, at the secondary level enrolment is in fact higher for girls than for boys: 107 girls for every 100 boys. At the tertiary level, as well, women's enrolment is higher: 119 women for every 100 men (Peña and others, 2012).

In most Latin American and Caribbean countries women represent half of the student body at all levels of education. In some countries, such as Argentina, the Bolivarian Republic of Venezuela, Ecuador and Uruguay, women's enrolment in university courses exceeds that of men. Women's academic performance has proven to be at least as good as that of men. A high percentage of female students at most Latin American universities

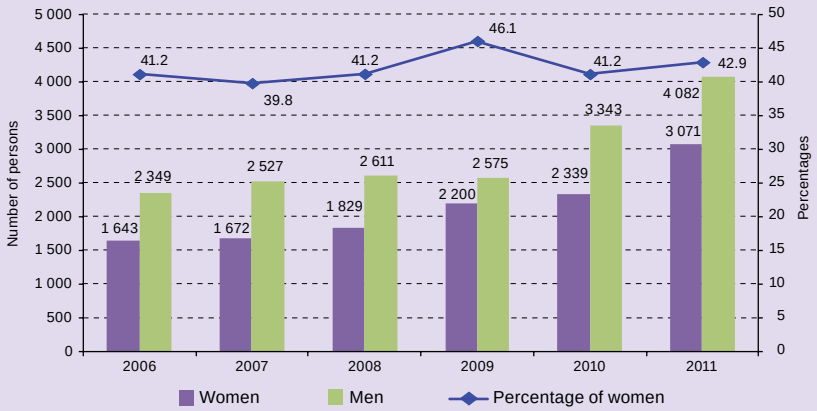
successfully complete their course of study. In some disciplines, over 50% of all graduates are women (UNESCO, 2012; Estébanez and others, 2011).

Women's numbers have been growing, too, among science and technology professionals in most of the countries. Taking the category of researcher as the most widespread indicator, the UNESCO Institute of Statistics (UIS, 2011) notes that 46% of science and technology researchers[1] in Latin America and the Caribbean are women, more than the world average of 29% (34% for Europe, 34.5% for Africa, 18.9% for Asia and 39.2% for Oceania).

**Box IV.2**
**Costa Rica: Ministry of Science, Technology and Telecommunications promotes equality**

In Costa Rica, it has always been the case that fewer women than men work in research and development (R&D), notwithstanding steady growth of R&D staff to 7,700 in 2011. The smaller proportion of women in R&D has to do with the difficulties women experience in pursuing professional development in an absolutely male-dominated field fraught with gender barriers.

**Costa Rica: staff devoted to research and development work, by sex, 2006- 2011**
*(Number of persons and percentages)*




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data provided by the Ministry of Science, Technology and Telecommunications of Costa Rica.

With a view to increasing women's enrolment in scientific university courses, tackling inequality in the aware of degrees and reducing the gap in pay for similar jobs, among other things, in August 2010 the Ministry of Science, Technology and Telecommunications of Costa Rica created a Science and Gender Unit within its Science and Technology Promotion Department. The new Unit was tasked with reflecting upon the role of women in the development of science and technology, and with mainstreaming the gender perspective into the work of the Ministry, from administration to project execution.

Most of the activities conducted have been aimed at promoting scientific vocations for girls and women, and benchmarking and publicizing the contributions of female scientists and technologists to the country's development.

The Meeting of Women in Science and Technology (2010) raised awareness among female students and young professionals on how to overcome gender barriers to entering and continuing in male-dominated careers. The second meeting (2012), organized jointly with the Gender Parity Commission of the College of Engineers and Architects, provided an overview of women's status in science and technology and publicized experiences of successful female engineers, with the participation of the National Institute of Women, the National Institute of Statistics and Censuses, the State of the Nation research and development programme, and other institutions.

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Ministry of Science, Technology and Telecommunications [online] www.micit.go.cr.

Despite these figures and advances, and despite the many initiatives aimed at attracting, recruiting and retaining women in science-related careers in the past decades, women are still dramatically underrepresented in this field.

[1] The Frascati Manual (2002) —an internationally recognized methodology for compiling and using R&D statistics— defines researchers as professionals working to acquire or create new knowledge, products, processes, methods and systems and services and to manage these projects.

**Box IV.3**
**Barriers to women in science**

Although the most obvious and direct forms of discrimination against women in scientific fields have disappeared, men and women do not enjoy equal conditions and opportunities for pursuing careers in science and technology research.

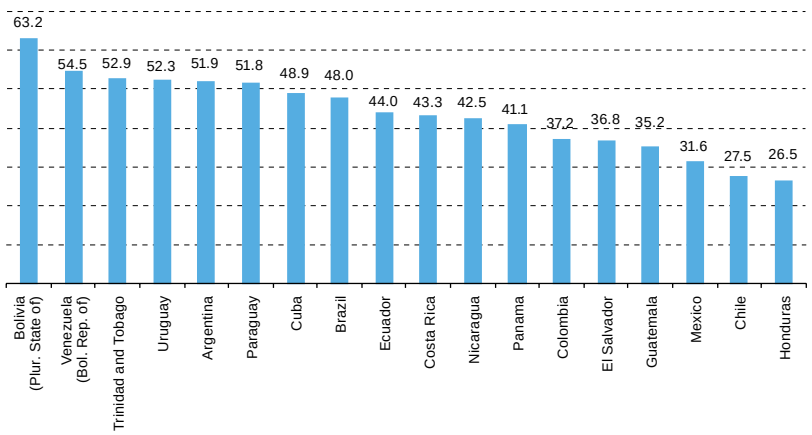
Most of the women interviewed for a study conducted by ECLAC on labour trajectories of women in science and technology said that there were gender barriers making it difficult for talented women to enter the scientific community, remain in it, see their work recognized and reach the top of their field. Among these barriers are:

- work-family conflicts (motherhood and care work) especially at early stages of the career, when women in research professions are making their way into their career ("rush hour")
- heavy male dominance of the power structure in science, which undermines meritocracy in the appraisal and promotion of women in research careers
- the persistence of gender images and stereotypes which converge with organizational cultures and formal and informal rules and standards in the academic community (psychological barriers).

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), "Trayectorias laborales de mujeres en ciencia y tecnología. Barreras y desafíos", Santiago, Chile, 2012.

Only seven countries in Latin America and the Caribbean showed relative gender parity in science and technology research. Half showed a moderate male dominance in this field, and in two countries (Chile and Honduras), 70% or more of researchers were male (see figure VI.1).

**Figure IV.1**
**Latin America and the Caribbean (countries with information available): proportion of researchers who are women, latest available year** [a]
*(Percentages)*




**Source**: UNESCO Institute for Statistics, "Women in science", *UIS Fact Sheet*, No. 23, December 2012.
[a] The percentages are based on the total number of people employed in research and development, including full-time and part-time workers. Simple average for Latin America and the Caribbean.

In most of the countries, the preponderance of women in university courses reverses at the early stages of the working career and divergence increases clearly with each step up the career ladder. Although more women are studying for postgraduate degrees, especially doctoral degrees, the retention rate for women falls as the research career advances (Estébanez and others, 2011; Rebufel, 2007).[2]

This phenomenon has been described in the literature as the leaky pipeline, which means that the process of becoming a researcher, which consists of several consecutive stages of education and work, loses more women than men at each transition point from one educational or professional level to the next.

The history of women scientists —in line with the general pattern of their participation in the labour market and in public life— has been one of moving from exclusion to segregation: both horizontal and, especially, vertical.

[2] In this respect, see, among others Estébanez and others (2011); UNESCO (2007 and 2012); Saavedra (2012); Rebufel (2007).

## 1. Horizontal segregation in science

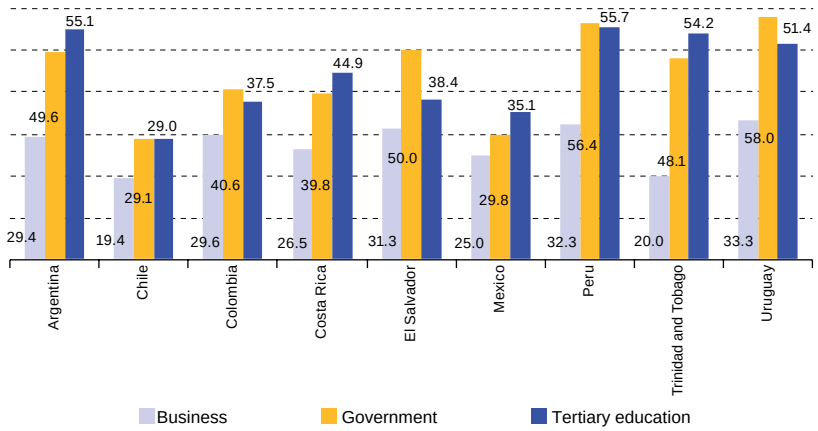
In science, horizontal segregation refers to the unequal distribution of men and women between scientific disciplines and sectors of the economy (academia, public sector and business) and the resulting concentration of women in certain occupations within science and technology.

Although the numbers of female students and professionals in science and technology has increased in the past few decades, they are concentrated in certain areas of knowledge, generally related to the traditional gender roles, images and stereotypes in society. The empirical evidence shows that women tend to predominate in disciplines related to medicine and health sciences, and social, humanistic and natural sciences. Women are fewest in disciplines related to the exact sciences and the various branches of engineering, which are dominated by men (UNESCO, 2007).

Despite higher enrolment rates and better learning achievements among girls in general, large disparities remain in the choice of secondary school subjects, where girls tend to engage less than boys in scientific and technical fields.

Another expression of horizontal gender segregation in science is the very scant number of women in industrial research (see figure VI.2). This trend is evident in all the countries with data available, although the percentages vary considerably.[3]

**Figure IV.2**
**Latin America and the Caribbean (countries with information available): proportion of researchers who are women, by sector, latest available year** [a]
*(Percentages)*




**Source**: UNESCO Institute for Statistics (UIS), September 2012, special tabulations.
[a] The percentages are based on the total number of people employed in research and development, including full-time and part-time workers.

## 2. Vertical segregation in science

Vertical segregation in science refers to the unequal position of women and men in occupational hierarchies. Several studies have shown that female researchers in the region have few possibilities of ascending to the upper levels of the job structure and gaining senior positions or positions of power. Although women represent a high percentage of science and technology researchers in Latin America and the Caribbean, as compared with other regions, there remains an obvious gap in women's participation in research work in general and in the upper echelons, in particular. In Mexico the figures are 31% and 16% respectively; in Brazil, 38% and 25%, and in Argentina, 55% and 28% (Estébanez, 2007 and 2011, Sieglin, 2012; Pérez and Ruiz, 2012).

[3] The most recent data for the countries of the European Union (E-27) show that women represent 39% of researchers in the government sector, 37% in tertiary education and just 19% in business (European Commission, 2009).

The breakdown of personnel by scientific category —level of seniority reached by the researcher in a specific system— is one of the main indicators of gender inequality in science. In all the countries, the most senior positions are held primarily by men and at rates surpassing their overall participation in the system.

Women in science and technology encounter not only a glass ceiling —visible or invisible obstacles that keep women from rising to the upper rungs of the professional ladder— but also a sticky floor, the term used in the specialized literature to describe the difficulties that tend to keep women at the lower levels of the organizational pyramid.

The issue of recognition is critical for women in these fields, because much of the motivation in scientific work revolves around peer acknowledgement. Women perceive that the scientific community systematically affords less value and recognition to their initiatives, findings and discoveries.

> *"The work isn't recognized: even when it's well done, the quality of the work isn't recognized because it's by a woman…. For example, when a woman proposes a research project, if the proposal is being assessed by men, it won't be considered. But if that same proposal is presented by a man, they do get funding".*
>
> Scientist, PhD in computer sciences interviewed by ECLAC for the study entitled "Trayectorias laborales de mujeres en ciencia y tecnología: Barreras y desafíos", 2012.

## B. Main gender barriers in science and technology careers

Tensions between career and family, especially at the early stages of a career, explain why fewer women than men pursue careers in science and why more women than men drop out of the career in the early stages. The studies show that the work-family conflict not only has a gender bias but is exacerbated by scientific institutions.

The professional evaluation and advancement of men and women in science and technology is subject not only to formal, meritocratic rules, but also to power relations within scientific institutions, gate-keepers[4] and informal networks. Analysis of these subtle mechanisms of discrimination and cumulative disadvantage in women's professional advancement, especially in the context of academic excellence, clearly shows gender segregation at work in these professions.

**Box IV.4**
**Women's participation in industrial research**

Two main problems in industrial research affect women disproportionately: first, the lack of support structures for achieving a balance between work and family life and, second, the need to develop a more inclusive workplace culture with a more diverse range of researcher profiles, which would also enhance competitiveness.

In order to resolve these issues, male and female workers need to achieve a better balance between work and caregiving activities. A more transparent culture needs to be built to put an end to clientelism, nepotism and old-boy networks, and to promote recruitment and promotion based exclusively on merit.

**Source**: H. Rübsamen-Waigmann and others, *Women in Industrial Research: A Wake Up Call for European Industry*, Luxembourg, Office for Official Publications of the European Communities, 2003.

### 1. Rush hour

One of the great problems for women in terms of their professional development is the conflict of roles they experience in having to deal simultaneously with family and professional demands. Specifically, a significant problem is the confluence of family and work cycles, mainly because the criteria for evaluation of the academic career are built to suit the male life cycle and professional trajectory. As a result, the most gruelling period for launching a professional career tend to coincide with the period of greatest fertility and the heaviest reproductive or family demands on women.

[4] Gate-keepers are institutions or persons located in key positions to control and influence researchers' access to fields of work and resources that are crucial for advancing in a science and technology career, such as financing, publications, participation in conferences, awards and patents.

Women's reproductive years and inequality in the distribution of domestic work are difficult to reconcile with an academic career, since the years in which a career is taking off tend to coincide with the family formation years.

Differences between men's and women's career tracks become evident at an early stage of the academic career which encompasses: (i) the process of obtaining a doctoral degree and the pursuit of scholarships abroad, (ii) recruitment into a scientific institutions for postdoctoral work, and (iii) competition for tenure. Tensions between work and personal life early in their career lead many young women to believe that science is incompatible with family life and that they must seek other horizons if they want to have children.

It is especially hard to reconcile the pressures generated in the process of gaining tenure (for which there are usually age and time limits) with the formation of a family and the birth of children. Research shows that many women experience this period as a dilemma: they must choose between motherhood and career advancement.

> *My supervisor asked me —I think it was the first day I went to his office— "Are you here alone or with your family?" "Alone," I said. "Just as well," he replied, "it's a headache with family."*
>
> PhD student in systems engineering and computer science, interviewed by ECLAC for the study entitled "Trayectorias laborales de mujeres en ciencia y tecnología: Barreras y desafíos".

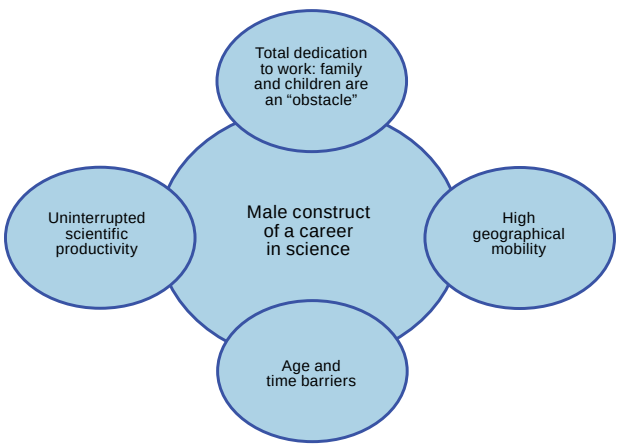
The length of this period varies considerably between countries and fields of science, but it generally encompasses from age of 25 to 35, sometimes 40 (ESF 2009; Caprile and Vallès, 2010).

The fact that the start of a researcher's professional life coincides with her reproductive age is among the unequal conditions that women face in choosing a career in science. Although marriage and motherhood are often postponed in our societies, bearing children is a biological function that cannot be put off indefinitely. The age at which men and women begin specialized training (doctoral and postdoctoral studies) coincides with women's childbearing years. This is one of the main reasons why they leave or postpone postgraduate studies. The science and technology systems in virtually none of the Latin American and Caribbean countries take this into account. As a result, there are few social or institutional mechanisms in place to enable women to pursue motherhood and childcare simultaneously with their academic training.

Two trends stand out in the countries of the region: (a) a significant proportion of women either stalling in their careers or leaving scientific professions when they decide to have children (Glover, 2001; Xie and Schauman, 2003); and (b) women in science- and technology-related areas having fewer children than their male colleagues and than women in general. Whereas male scientists have the same numbers of children as the rest of the population, fertility rates among female scientists are significantly lower (Blackwell and Glover, 2008; García de Cortázar and others, 2006; Glover, 2001).

Historically speaking, science has developed without women, so the standard evaluation and career advancement criteria are based on the traditional male life cycle and professional trajectory. Women are expected to adapt to the standards, norms and values constructed for and by men if they aspire to an academic career (see diagram VI.1).

**Diagram IV.1**
**Male conceptualization of a career in science**




**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), "Trayectorias laborales de mujeres en ciencia y tecnología: Barreras y desafíos", Santiago, Chile, 2012.

### (a) Total dedication and availability

This refers to the expectation that a scientist will have unlimited commitment to science throughout working life. Affording attention to other important obligations, such as family, is interpreted as a lack of dedication to the academic career. Long working days and out-of-hours work (evenings, nights and weekends) are seen as a standard and to be expected.

Commitment to science also means being available to participate in informal networks and in the scientific community outside hours and outside normal working places (Ackers and Gill, 2005; Griffiths, Moore and Richardson, 2007). Gender studies have found that the main difference between men and women is not their dedication to scientific work, but their total availability, i.e. women's lack of time and limited mobility for attending meetings at unusual hours, for frequent travel and for participating in formal and informal networks outside the normal working day and milieu (NAS, 2007).

Historically, this career model has been based on the profile of a male scientist supported by a woman, usually his wife, who takes care of all aspects of family life—home, children and social life. This model is still evident today among some men, but it has become increasingly obsolete for men and women who wish or need to take part in other activities.

### (b) Age and time barriers

The standard scientific career is construed as a rigid sequence of educational and occupational stages which are expected to be completed by a given age. Deviations or delays in this route are seen as denoting a lack of commitment and are therefore penalized (NAS, 2007). The sequence and duration of each stage varies from one country to another, but they are always rigid. Rules for access to financing, grants and tenure are usually defined in terms of age or time elapsed since the award of academic degrees or hiring to academic positions. These rules can be strict and legally binding, or can simply operate as institutional expectations. People who have moved "quickly" —in other words comparatively young academics who have published good papers at an early age— are highly favoured in hiring and advancement processes.

### (c) Uninterrupted scientific production

A third expression of the male construct of the scientific career which affects women disproportionately in launching their career is the notion of uninterrupted scientific productivity prevailing in most schemes of evaluation, financing and promotion (Thorvalsdottir, 2004). These ways of measuring scientific productivity may not be the best way to assess candidates' scientific potential and they worsen the inequalities between men and women in the scientific system (Feller, 2004). This generates a vicious cycle of academic practice: greater dedication by men to scientific research produces more and better publications, which secure them more financing for research (Yáñez, 2007; Yáñez and Godoy, 2010).

### (d) Geographical mobility

Scientific circles value professionals who are constantly available and geographically mobile in pursuit of professional advancement and/or international experience. Family- and time-related constraints on mobility and scientific productivity may act as a filter in selection procedures and advancement processes, thereby disadvantaging women in academic careers.

## 2. Professional advancement

As highlighted in studies on women's scientific productivity, the persistent gender asymmetries in science cannot be attributed to factors situated exclusively outside scientific organizations, for example, family responsibilities and time and mobility constraints.

In order to examine the hidden forms of gender discrimination blocking women's advancement in scientific careers, the studies take a closer look at the criteria and strict rules governing formal hiring and promotion procedures in academia, and analyse power relations, gate-keeping practices and male-dominated informal networks as underlying factors in gender segregation in science and technology.

One of the principles which the scientific community has traditionally most valued and protected is that of meritocracy as a tool of scientific excellence. Moving ahead in a scientific career is a highly demanding, merit-based and increasingly competitive process that is apparently gender-neutral. People who are efficient should be able to get to the top, regardless of gender, thanks to their effort and personal sacrifice and based on an objective evaluation of their performance. But gender discrimination in the scientific career operates in both informal and formal ways.

Informal networks play a key role in professional advancement. They provide a sense of belonging to the scientific community, access to professional resources, opportunities for advancement and stimulus (Etzkowitz, Kemelgor y Uzzi, 2000, cited in European Commission, 2012). In these networks scientists discuss research, share knowledge and information and weave the supports which influence scientific productivity and academic achievement. This milieu —regulated largely by social values, gender images and stereotypes, interests and emotional ties— can facilitate or impede women's advancement in science and technology by giving or denying them access to important academic and institutional information and by providing (or not) moral and emotional support (Gupta, 2007, cited in Sieglin, 2012).

The relative weakness of women scientists in informal networks is a subtle but powerful mechanism that explains women's higher dropout rates and slower progression through their careers as compared with men. This mechanism operates through a cumulative rationale of "non-happenings" and slightly exclusionary practices that gradually impede women's career and produce a sense of isolation and low professional self-esteem. As pointed out by Husu (2001 and 2004), hiring for attractive temporary positions is often conducted behind closed doors with no advance notice, which may benefit an exclusive group of men "in the know" through informal networks that the position is coming up for selection. So women are not seen, heard, read, cited or encouraged, in a type of hard-to-pinpoint and extremely subtle gender discrimination.

The most recent research on the mechanisms which build gender differences and inequalities in academic excellence focuses on people and agents which control scientists' access to fields and resources which are crucial for developing a successful research career. As noted earlier, gate-keepers are figures who decide on researchers' access to fields and resources such as financing, publications, conferences, prizes and patents (Husu, 2004 and 2008).

**Box IV.5**
**Gate-keepers in Chile**

In Chile only three of the 10 members of the two Senior Councils of the National Fund for Scientific and Technological Development (FONDECYT) are women. All three are members of the Senior Council for Science (there are none in the Senior Council for Technological Development). FONDECYT is the main programme administered by the National Council of Science and Technology (CONICYT) in Chile for awarding research funds. The main task of the FONDECYT Senior Councils is to assign resources for basic and applied research through calls for applications, evaluation, selection, oversight and appraisal of projects.

Of the 193 members who make up the study groups, 45 are women (23.3%). Of the 25 study group directors, five are women (Boisier, 2007). The study groups represent an intermediate level of decision making between external assessors and the FONDECYT Senior Councils. Their functions are to provide technical advice to the Senior Councils for selecting the projects submitted at each application, and to evaluate the progress and results of those under way. At present there are 25 study groups, made up of prominent members of the scientific and technological community. They are appointed and renewed periodically by the Senior Councils and administered by the programme management office.

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), "Trayectorias laborales de mujeres en ciencia y tecnología: Barreras y desafíos", Santiago, Chile, 2012.

## C. Concluding remarks

Although the number of women in jobs requiring ICT expertise is constantly rising, the same is not necessarily true of women in positions of decision-making and control of these resources. In the case of ICT-related careers, women are underrepresented in all decision-making structures at the global, regional and national levels, including policy and oversight bodies, the ministries responsible for science, technology and innovation or telecommunications, and corporate boards and senior executives (Primo, 2003).[5]

Science and technology professions appear to be less permeable than other highly skilled professions to the general trend towards a better gender balance. This state of affairs clearly contracts the scientific ethic of universalism and meritocracy. If universalism and meritocracy were the rule today, gender inequalities would be less sharp in science (European Commission, 2012).

One way of encouraging women's participation in science and technology is to increase the numbers of women studying these subjects in tertiary education, but until the female dropout rate from these professions decreases —or women are no longer forced to a standstill early in their careers— gender equality will not be achieved in this field.

[5] At the time of writing, these data were not available for the Latin American and Caribbean countries. In Europe (18 countries), women occupied only 9% of upper management positions and 9% of supervisory posts in the telecommunications industry in 2001. In the United States, in 2001, women occupied only 13% of upper management positions in major telecoms and electronics companies. In 2001 there were female ministers of communications or telecommunications in only three countries: Colombia, Mali and South Africa; and vice-ministers in another six: Angola, Belarus, the Czech Republic, Ghana, the Kyrgyz Republic and Tanzania. The literature indicates that without a critical mass of women in senior positions, it will be hard to effectively counteract practices of gender discrimination in this sector (European Database on Women in Decision-making, 2001; Jamieson, 2001).

# Information and communications technologies: tools for achieving gender equality

Governments in Latin America and the Caribbean, international agencies and civil society organizations are becoming increasingly aware of the importance of information and communications technologies (ICTs) to economic and social progress, and as cross-cutting tools for achieving equitable and sustainable development and for promoting and protecting human rights. The extent of access to and use of ICTs among the population, especially among the most disadvantaged groups, is usually taken into account in development policies.

While the importance of the gender perspective is acknowledged in these policies, and awareness of the gender digital divide is shining a spotlight on the factors that require attention, governmental efforts have been uneven across the region. In many cases the gender digital divide is recognized, as is the urgency of overcoming it, but no concrete action is taken beyond a declaration of political principle.

Although there has been no strategic or coordinated action from Governments, numerous ICT initiatives are already improving the lives of women on many levels, while also furthering the cause of gender equality. These initiatives are usually projects run by agents who vary considerably in nature (public, private, civil society organizations, women's organizations, companies and so forth) and level (international, regional, national or local). Machineries for the advancement of women have, in many instances, played a key role in these projects.

In general, these activities are either driven by a conviction that more women are needed in ICTs at all levels (as users, professionals, developers or leaders) or are aimed at promoting more egalitarian values on the web. The ultimate goal, therefore, is to boost gender equality within the information society. A wide range of other initiatives actually use ICTs as a medium and are also going a long way to improving women's lives, owing to their cross-functionality in myriad fields (including health care, education and combating violence).

All these initiatives represent a melting pot of ideas for tackling gender equality in the ICT field and present proposals for exploiting ICTs to impact gender equality. The number of these initiatives is rising and they must be given greater visibility and consolidated so they can gain strength and be replicated and transferred, thus producing a critical mass and placing the gender perspective on Governments' digital agendas.

Detailed below are a series of examples of this type of practice, which also illustrate where there is room for further progress. A wide net has been cast, giving priority to initiatives that demonstrate the value of access to and use of ICTs by women in various domains, particularly those that are considered fundamental to achieving equality: women's economic autonomy and well-being, and the promotion of gender equality. The chapter draws on experiences documented and reported by the countries of the region, as well as publicly available information on the Internet.

## A. ICTs used to increase women's economic autonomy

When it comes to the information society and gender, one of the key issues, as discussed in this document, is increasing women's economic autonomy by exploiting the employment opportunities offered by today's digital economy.

It is important to appreciate that ICT use is a job skill that is in demand worldwide. Competency in these tools represents a key component of an individual's employability and a channel for social integration. Hence, major efforts have been made to provide ICT training, embedding it, for example, throughout the school curriculum and, in particular, setting up digital literacy programmes for groups that are unfamiliar with ICTs because of their age, educational level, economic stratum, place of residence or ethnicity.

A number of digital literacy initiatives have been designed specifically for women. These cater to their particular needs and focus on differential issues surrounding the use of ICTs, targeting training not only to use of these technologies but also to other substantive matters (such as empowerment, communication, integration and rights).

### Chile: digital literacy through Biblioredes

Since 2002, the Department of Libraries, Archives and Museums (DIBAM) has been running the Biblioredes programme. Its goal is to transform people into agents of social and cultural development from public libraries and cyberspace, thus enabling them to overcome their isolation.

The programme is run in 412 public libraries and 18 regional computer laboratories all over the country, including the island territories. It features latest generation computers, Internet access and free training in digital content and developments.

Thanks to an agreement between this programme and the National Women's Service (SERNAM), almost 20,000 women from the Women, Work and Entrepreneurship Programme (formerly known as the Female Heads of Household Programme) took part in digital literacy courses between 2008 and 2011. There is currently an agreement with the Women's Employment Portal (run by PRODEMU, the Foundation for the Advancement and Development of Women) to teach digital literacy skills to 14,000 women.

**Source**: National Women´s Service, 2012 [online] www.biblioredes.cl/acceso-internet.

### El Salvador: Cuidad Mujer, opening doors to ICTs

Cuidad Mujer is an important scheme in the region. It provides services to women in the areas of education, economic autonomy, prevention, child care, gender-based violence, and sexual and reproductive health. It is an initiative of the Government of El Salvador, with technical and financial support from the Inter-American Development Bank (IDB), and its goal is to improve the living conditions of Salvadoran women by meeting their basic needs and serving their main interests. The first centre was opened in March 2011 in the municipality of Colón and four Cuidad Mujer centres are now up and running in different departments of the country, serving 127,000 women.

As part of a strategy to boost women's economic autonomy, each centre has its own computer room for delivering courses to improve women's skills, which will in turn enhance their employment opportunities. Thanks to this service, which is among the most requested, almost 600 women have received IT training (use of software, Windows, Word and basic Excel).

What makes Cuidad Mujer a particularly innovative model of care is the fact that it brings 15 State institutions together under one roof to provide women with different specialized services, ensuring they are treated in a timely manner and in an atmosphere of trust.

**Source**: Inter-American Development Bank (IDB) and Secretariat of Social Inclusion of the Government of El Salvador.

### Spain/Latin America: *Hola Fabiola*

*Hola Fabiola* is a training programme that helps Latin American women living in Spain learn how to use and exploit ICTs to the full. For these women, ICTs represent a highly useful tool for integration, equality, diversity and communication. The aim of *Hola Fabiola* is not only to pass on IT knowledge, but also to ensure that competency in these tools indirectly helps women to:

- Discover new channels for communicating with their immediate environment and home communities.
- Discover new ways of integrating with regard to, for example, employment, housing and legal procedures.
- Enhance their writing and speaking skills, and take advantage of the benefits of ICTs in the area of languages.
- Gain awareness of their rights in the field of equality and how to exercise them.
- Learn about Spanish culture.
- Discover new ways to participate in networks and associations.
- Get more out of their free time and leisure activities.
- Acquire skills that contribute to their individual and collective empowerment.

Hola Fabiola is run as part of a cooperation agreement between Fundación Orange and Fundación Directa and receives funding from the Ministry of Sanitation, Social Services and Equality. So far, nearly 100 women have been trained in collaboration with public and private organizations working with these groups of women.

**Source**: Ministry of Sanitation, Social Services and Equality, "Hola Fabiola", 2013 [online] www.holafabiola.com.

Receiving training in basic ICT use (digital literacy) is beneficial not only in terms of improving employment prospects. Indeed, specialized ICT applications and tools can also be an asset for employed as well as self-employed women, particularly since women tend to have less job security.

Telecommuting arrangements, or the relocation of work using ICTs, have made it easier to juggle a career and a family, especially for women, who are responsible for both spheres. Telecommuting programmes have been implemented by large firms as a human resources policy intended to attract and retain talent; a number of small businesses are also offering similar facilities. Nevertheless, telecommuting does present some risks. For instance, maintaining a presence in the office is important in some business cultures, and the remote and isolating nature of the telecommuting option could prove an obstacle to career development and progression. In addition, there is a risk of intensifying the existing division of labour between men and women, reinforcing the idea that reproductive burdens are the exclusive domain of women. For these reasons, telecommuting must be carefully managed and regulated if it is not to become a source of further discrimination.

### Colombia: Telecommuting Agreement

Colombia was the first country in Latin America to pass special legislation regulating telecommuting. On the basis of Law 1221 of 2008, a legal framework was created promoting equal treatment for individuals who work in a specific location and those who telecommute, in terms of benefits and labour and social guarantees and rights. The law is regulated through Decree 0884 of 2012, which promotes the adoption of telecommuting as a mode of working in the country.

A year after its adoption, significant headway had been made: 3,000 individuals had learned more about telecommuting; 200 private companies and 1,000 public officials had been trained; and 50 companies had been given advice on implementation.

In this context, the Ministry of Labour and the Ministry of Information and Communications Technologies are spearheading the Telecommuting Agreement; as of May 2013, 35 companies had signed up. The agreement covers aspects such as promoting intensive ICT use within companies, transforming organizational culture and moving towards flexible working patterns, and developing corporate policies that benefit mobile workers.

In particular, the Ministry of Labour encourages companies to allow women to telecommute during pregnancy and while breastfeeding once maternity leave has come to an end.

**Source**: Ministry of Labour, "El teletrabajo llegó para quedarse", 2013 [online] www.mintrabajo.gov.co/teletrabajo.html; Ministry of Information and Communications Technologies, "Vive Digital", 2013 [online] www.vivedigital.gov.co/teletrabajo/#.

Apart from new modes of working made possible by ICTs, everyday applications such as e-mail, chat, video conferencing, file sharing systems and social networks are making a huge difference to the jobs of millions of men and women. The impact may be even greater in the case of the latter, who can use these tools to manage day-to-day arrangements for the office and the home simultaneously.

ICTs are also vital tools for the self-employed. E-commerce, ICT-supported business management and Internet marketing are all solutions that can generate significant benefits in all areas of business. The integration of ICTs and women's entrepreneurship is regarded as a priority strategy, although, according to the specialist literature, women's businesses tend to be less dynamic and concentrated in sectors that have less value added compared with men's businesses. They operate in local markets and have little ICT integration. Incorporating technology into women's businesses opens up endless possibilities for strengthening and growing these businesses and exporting to new markets. From that point of view, any government strategy that promotes the digital inclusion of small and medium-sized enterprises (SMEs) and, in particular of micro and small enterprises, could be an extremely important way of supporting women's economic empowerment through training, content and applications, services, support for website creation, cloud computing, social networks, business strategy and e-Government.

Within the field of e-learning and teleservices, several initiatives are working to strengthen women's entrepreneurial profile (in general or in specific sectors), which may give their autonomy and economic development a significant boost. They consist of websites specializing in the provision of training and advice to female entrepreneurs or their trainers, together with other information and services of interest to these women (such as calls for bids, information on funding, offers and crowdfunding of projects).

### Central American Integration System (SICA): "Train the ICT Trainer" module aimed at assisting business women and female entrepreneurs through MSME centres

This module, developed within the framework of the 2011-2014 programme run by the Organization of American States (OAS) (through its Department of Economic Development, Trade and Tourism) and the Canadian International Development Agency (CIDA), aims to improve the competitiveness of the region's business women through ICT access, implementation and use in business.

It builds on the existing cooperation between the CTIC Foundation (Centre for the Development of Information and Communication Technologies) and CENPROMYPE (Centre for the Promotion of Micro and Small Enterprises in Central America), launched in 2008, through which various pilot projects were run to incorporate an ICT adviser into business support centres in Central America.

The module was taught using a mixed training methodology: it combined an initial phase of e-learning with complementary face-to-face sessions, comprising a total workload of 76 hours. The participating countries were Belize, El Salvador, Guatemala, Honduras, Nicaragua and Panama. On the basis of the training module, a database of advisers was created, who will be able to offer specialized services in centres for micro, small and medium-sized enterprises (MSMEs).

All participating institutions are willing to replicate the training through business consultancy and to highlight the following key points of the project in their institutional strategies:

- The importance of providing differential advice to women in micro, small and medium-sized enterprises.
- Business consultancy as a form of technical support for incorporating ICTs into business development.
- The role of new technologies in developing micro, small and medium-sized enterprises.

**Source**: Central American Integration System (SICA), 2013 [online] www.sica.int/cenpromype/.

### Mexico: INMUJERES strategy for the dissemination of business development information over the Internet

This is a strategy developed by the National Women's Institute of Mexico (INMUJERES). Several media are used:

- The website *Emprendedoras y empresarias*, intended for female entrepreneurs and business women who are looking to start up or grow a business. It publishes information on support programmes, calls for bids, training material and statistics. It comprises three sections:
  - Being a business woman: this section contains a glossary of basic business concepts and statistical information on female employers.
  - Developing your business: this has a page on training, containing a list of online courses delivered by public and private institutions and links to Internet sites offering specialized business management tools. It also has information on federal programmes that offer funding and marketing support.
  - Networking: here women can join the directory of businesswomen.
- A blog on personal finance and business issues: http://empresarias.blogspot.com.es/.
- Social networks: Facebook and Twitter profiles (www.facebook.com/empresarias.inmujeres http://twitter.com/empresariasINM) to publicize support programmes, report on technology and business news and target the public directly.

**Source**: National Women´s Institute, "Emprendedoras y empresarias", 2013 [online] http://empresarias.inmujeres.gob.mx/.

### Supportive and Sustainable Tourism in Latin America

Fostering an entrepreneurial spirit is crucial to encouraging women to set up small businesses and micro-enterprises, enhancing their potential for economic growth and self-sufficiency and providing them with a way of overcoming poverty and vulnerability. Sharing experiences, reporting on success stories and different role models of women entrepreneurs, and providing support through professional networks and associations are key factors enabling women to believe in their capabilities and in the potential of their ideas, and to decide to make their business initiative a reality.

This project —sponsored by the Banesto Foundation (in the future, the Botín Foundation)— aims primarily to support female entrepreneurship in the tourism industry, especially in the hotel sector. The four key pillars of the project are business support; specialized training; referral to sources of funding; and provision of means for integration into marketing platforms, including an agreement with the Secretary of State for Tourism of Spain for the use of its specialized tourist services management platform. The project currently markets and manages over 90 places to stay, 17 interactive routes and more than 30 entrepreneur projects in 7 countries in the region.

The criteria for inclusion in this network include: over 50% of the staff must be women, and at least 15% of them must be in management roles; the project must be 50% locally owned; 80% of procurement must be local; and it must be environmentally sustainable. The projects must demonstrate that they have an impact on the local economy, that they create employment (with a significant percentage of women in management positions), and that they increase the income of the women involved.

The project uses ICTs to publicize and market routes and accommodation for tourists and also as a tool for attracting funding for sustainable tourism projects run by female Latin American entrepreneurs, through a crowdfunding platform that manages individual contributions.

**Source**: Banesto Foundation, "Turismo solidario y sostenible en Latinoamérica", 2013 [online] www.turismo-solidario.es/latinoamerica/iniciativa.do.

Given its huge capacity to channel news, views, examples and role models, the Internet is also becoming a very active place for communication for women with decision-making authority in the business world, whether they are in an entrepreneurial or managerial role.

Almost no examples were found of technological entrepreneurship by women, an area offering great potential. Some Governments in the region and various international organizations are promoting initiatives such as technology incubators, financing of start-ups by figures such as angel investors, and calls for participation in awards for innovation, but women make up a conspicuous minority. Nevertheless, some platforms are beginning to generate a critical mass and increase the visibility of these female digital entrepreneurs.

### Spanish-speaking countries: *Ellas 2.0*

*Ellas 2.0* is a platform that aims to encourage women to develop technology-based businesses and transmits the message of Women 2.0 to Spanish-speaking communities. Its mission is to act as a catalyst of social change, mobilizing, equipping with visibility, inspiring, educating and connecting a new generation of female entrepreneurs who will head global, scalable and innovative projects with a high growth potential.

Weekly virtual meetings (*Ellas conectan*) are organized on a specific theme, for up to eight participants. The host is an expert on the subject and the networking is directed by a facilitator who is a role model in the sector.

**Source**: Ellas 2.0, 2013 [online] www.ellas2.org/.

The digital economy (in particular, the job opportunities the ICT sector can offer) represents another very important path to autonomy for women. This is a current, and primarily future, employment sector, but one in which women are still outnumbered by men and have less job security. As already mentioned in relation to equality in this area, some Governments have taken steps to attract women into the ICT industry and services, given the need for more specialized professionals.

The following schemes are designed to influence students' vocational choices in the education system. They use communication strategies to make girls more likely to be drawn to specialize in computer science, mathematics or engineering. Awards, forums, scholarships and fairs for young women in ICTs are among the initiatives developed by different organizations.

### International Telecommunication Union (ITU): Girls in ICT Portal

This is a website designed to encourage girls and young women to prepare for a career in ICTs, and to provide parents, teachers and other interested parties with information.

The portal is divided into two large sections:

- ICT studies and careers: this section contains links to information on grants, competitions and awards, training and internships, online networks, technology camps, national events taking place as part of Girls in ICT Day, and other initiatives to encourage and support women and girls to enter the ICT sector.
- Trends, analysis, and profiles: this section includes the study conducted by the International Telecommunication Union (ITU) entitled "A Bright Future in ICTs: Opportunities for a New Generation of Women", which surveys global trends in women's professional development and employment in the ICT sector. It also provides links to other technical papers on these issues and links to regional and private organizations working in this area, information on ICT careers and profiles of successful women.

The portal is managed by ITU, the United Nations specialized agency for information and communication technologies.

**Source**: International Telecommunication Union (ITU), "Girls in ICT Portal", 2013 [online] http://girlsinict.org/.

### Dominican Republic: *e-Chicas* and *Supermáticas*

The project "Gender and ICTs: Equality and Equity in E-Dominican", run by the Research Centre for Women's Action (CIPAF) and supported by the Fund for Gender Equality of the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) aims to overcome stereotypes, help more young and adolescent girls develop an interest in mathematics and science through clubs named *e-Chicas* and *Supermáticas*, and close the country's gender digital divide.

These initiatives are part of the first Plan for Equal Opportunities for Women in the Information Society, which seeks to incorporate the gender perspective into the broader National Strategy for the Information Society.

**Source**: Clubes e-Chicas y Supermáticas, 2013 [online] https://sites.google.com/site/echicasysupermaticas/home; and United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women), "Closing the science and technology gender gap in the Dominican Republic", 2013 [online] www.unwomen.org/en/news/stories/2012/7/closing-the-science-and-technology-gender-gap-in-the-dominican-republic.

### L' Oréal-UNESCO "For Women in Science" programme

This is a sponsorship programme that supports and recognizes the work of female researchers from around the world who contribute to the advancement of scientific knowledge. Each year, five female scientists are recognized for their excellence, together with 15 other women who are awarded international fellowships allowing them to pursue their scientific careers outside their home countries. National fellowships are also awarded in almost 50 countries (including Argentina, Chile, Colombia and Mexico), together with regional fellowships in the Arab States and Sub-Saharan Africa, in collaboration with the branches of the L'Oréal group and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

In the 15 years that it has been running, the programme has awarded fellowships to more than 1,700 women from 108 countries, and has recognized 77 women for their excellence, two of whom have won the Nobel prize.

**Source**: L'Oréal Foundation, "Women and Scientific Excellence", 2013 [online] www.loreal.com//Foundation/Article.aspx?topcode=Foundation_AccessibleScience_WomenExcellence.

Steps have also been taken in the region to increase the visibility of female ICT professionals and enhance the coordination between them, breaking down the stereotypes that associate men with IT professions. These initiatives function not only as mechanisms for attracting women into the sector, but also as forums that promote female role models in this field, publicize their contributions and help to improve the occupational situation of women in ICTs. Examples include directories of women in ICTs, platforms and working groups of female professionals in the sector, and the creation of professional women's organizations and associations.

### Latin America: Latin American Women in Computing Congress

This is an annual event that has taken place since 2009 within the framework of the Latin American Computing Conference (CLEI) organized by the Latin American Centre for Informatics Studies. Its main objective is to highlight women's research, interest and achievements in the different areas of information technology, with a view to encouraging more active participation from women. The papers presented are expected to identify the challenges facing women in the ICT field, in teaching, in the job market and in research.

The fifth Latin American Women in Computing Congress (Naiguatá, Bolivarian Republic of Venezuela, October 2013) is part of the Latin American Computing Conference 2013. Its topics will be:

- Encouraging the participation of women in the ICT sector
- Gender equality and ICTs
- Gender particularities in the development and deployment of ICTs
- Gender particularities in ICT education

- Analysis of the research activities of women in ICTs
- Gender and human-computer interaction
- Female leadership models in IT
- Internet social networking and the role of women
- Women's participation in decision-making at the national and international level in relation to the use of ICTs
- Public policies on women and ICTs

**Source**: Latin American Computing Conference (CLEI), "V Congreso de la Mujer Latinoamericana en la Computación", 2013 [online] http://clei2013.org.ve/v-congreso-mujer-latinoamericana-en-la-computacion/.

### Brazil: Women in Technology group

This is a non-profit organization whose aim is to increase women's participation in the ICT field. Its mission is to help women's potential be recognized in this area, and it is a reference group in the quest for gender equality.

Using the social networks, it seeks to:

- Encourage the exchange of experiences among members who work, wish to work or are undergoing training in this field.
- Achieve occupational equality between men and women.
- Provide training on and disseminate information technologies among women.
- Promote the inclusion of women in the ICT field.
- Collaborate in the development of society and in the role of women in technology.

**Source**: Mulheres na Tecnologia, 2013 [online] http://mulheresnatecnologia.org/.

### Box V.1
### Women dominating ICTs in the Caribbean

In the early 2000s, many Governments across the Caribbean liberalized their telecommunications markets. Recognizing that some communities and many individuals would not necessarily receive services if the provision was left solely to market mechanisms, these Governments committed to the principle of universality of access. To this end, they created Universal Service Funds (USF) whereby telecommunications companies must pay into a fund that will compensate any provider obliged to offer services to meet the goal of universal service.

USF programmes increase access to the Internet among disadvantaged groups. In December 2012 the Government of Saint Vincent and the Grenadines announced that approximately 350 low-income families would be provided with subsidized Internet access through the Smart Project, funded by the country's USF.

Other USF schemes have targeted women specifically, to ensure that service provision can be translated into empowerment. In one such activity funded by Grenada's USF programme, the National Telecommunications Regulatory Commission of Grenada and the ICT Centre for Excellence and Innovation collaborated to provide a training course for women in building e-businesses. The course was held in 2012 and targeted 50 women with small businesses. It focused on teaching women how to use ICTs to create employment opportunities for themselves. The classes included training on business development and management, plus the technical skills needed to host a business website. As an outcome of the course, the women participating were required to create a website for the type of business selected.

**Source**: Government of Saint Vincent and Grenadines, "The Universal Service Fund will provide Internet access to 350 low-income families", 6 December 2012 [online] http://www.gov.vc/; National Telecommunications Regulatory Commission, *Grenada Women and Girls in ICT Initiative 2012*, St. George, 2012 [online] http://www.ntrc.gd.

## B. ICTs used to improve women's well-being

Using ICTs to enhance women's autonomy by raising their professional standing in the digital economy is by no means the only way that these tools can contribute to the advancement of women in Latin America and the Caribbean.

Technological tools and solutions offer considerable scope for improving women's well-being, as evidenced by the multitude of technological applications in key areas such as education, health care and preventing and combating gender-based violence.

In the area of education, distance learning and e-learning systems serve to offer training to a wider range of people, who, for various reasons (family commitments, place of residence or lack of resources), find it very difficult to attend traditional face-to-face courses. Distance learning is booming; it is now being used by both formal and informal educational establishments, and is able to cover any topic or type of educational material. E-learning initiatives have thus emerged that target specific groups of women.

### Ecuador: *Proactiv@s*

The *Proactiv@s* project, presented in the framework of the first Regional ICT and Gender Forum in Ecuador, seeks to promote ICT access, use and empowerment among women and young and adolescent girls on equal terms with men and with the same timeliness. The project covers the entire population but places particular emphasis on priority groups such as teenage girls and women deprived of their liberty.

In relation to the latter group and, based on a public-private agreement between the Ministry of Telecommunications and Information Society of Ecuador and the operator, an infocentre was opened at the Quito Women's Social Rehabilitation Centre in May 2013, as a place for ICT participation and access. Its primary goal is the technological inclusion of women deprived of their liberty. It also encourages them to use ICTs for interactive learning and e-learning, as a way to improve their quality of life. This centre will benefit approximately 400 women.

**Source**: Proactivas Ecuador, 2013 [online] www.facebook.com/proactivas.ecuador, and www.infocentros.gob.ec/index.php/.

With regard to health**,** several examples illustrate how ICTs can make a big difference to women's lives. These include in particular initiatives in the area of reproductive health, and, more generally, in all areas of health where telemedicine systems can be implemented, which are specially designed for those population groups located furthest away from health-care services. Within the field of eHealth, notable advances have been made in the provision of services through mobile devices, which are changing the conception and practice of medicine around the world. The features of mobile telephony are already being used to facilitate tasks such as health worker training, the diagnosis and treatment of diseases, data collection, and the monitoring of patients or of epidemics and disasters.

### Guatemala: telemedicine in Alta Verapaz department 2011-2015

This is a project run by Asociación TulaSalud in collaboration with the Department of Health of Alta Verapaz, Cobán Regional Hospital, and the Cobán National School of Nursing. It aims to use ICTs to strengthen primary health care services, prioritizing comprehensive care for women in the indigenous, rural and neglected communities of Alta Verapaz. Activities have now been extended beyond this department.

The project involves three levels of care. At the first level, a member of the community with basic knowledge about health (tele-facilitator) is on hand to provide basic health care, educational talks, advice and home visits, especially to pregnant women and children suffering from malnutrition, and also follows up on patients after their treatment. The tele-facilitator has a mobile phone with an unlimited call plan for numbers within the telemedicine network.

At the second level, medical, paramedical and technical personnel in support services are able to upgrade their skills through ICT-based distance learning programmes prioritized by the Ministry of Public Health.

The services in the third level of care benefit from a programme of continuing medical education. In addition, care of indigenous communities is supported and strengthened by using mobile phones to provide information on the clinical condition of the patient. A telemedicine module has been set up at the Regional Hospital, which is operational 24 hours a day and deals with special cases referred by second-level personnel.

**Source**: TulaSalud, 2013 [online] www.tulasalud.org; and www.tulasalud.org/Programas/tele-medicina/niveles-de-atencion.

### Peru: WawaRed, getting connected for better health in pregnancy

This project is implemented by the Cayetano Heredia University of Peru and financed by the Mobile Citizen Programme of the Science and Technology Division at the Inter-American Development Bank (IDB), which supports the development of citizen-centred mobile services, targeting low-income groups in rural and urban areas in the Latin American and Caribbean region.

WawaRed has three main components: electronic medical records, text messages, and an interactive voice system.

The electronic medical record system ensures that patients' clinical information is never lost even when it is migrated to a local health centre. The text messaging programme consists in sending three motivational and educational text messages a week to participating pregnant women. Women who have a specific medical condition receive an appropriate weekly SMS. The system also functions as an electronic calendar, sending patients a message reminding them of the date and time of their appointments 48 hours in advance. The interactive voice system enables women calling a free hotline to choose from a series of options and obtain information relevant to their situation (loss of fluid or vaginal bleeding, headache, swelling or blurred vision, or how to prepare for labour).

**Source**: WawaRed, 2013 [online] http://wawared.org.

Entities and networks working for sustainable human development are also exploiting ICTs to promote economic and social cohesion, with special emphasis on particularly at-risk groups of women.

### Plurinational State of Bolivia: TICBolivia Network

The TICBolivia Network is a non-profit multi-sectoral association of 24 national organizations, including grassroots associations, non-governmental entities, private companies, universities and government bodies that use ICTs for sustainable human development, mainly in the areas of education, agriculture, and governance and gender.

The TICBolivia Network works for the recovery of good practices for ICT inclusion in at-risk sectors of society. It targets women and indigenous and rural organizations and seeks to contribute to gender equality and the empowerment of women through ICT use. Using the Internet, networking, an online consultation service, databases and the radio, headway has been made in building a culture of non-violence.

**Source**: TICBolivia Network, 2013 [online] www.ticbolivia.net/.

Economic and financial management is another area in which ICTs can be used to improve women's lives to great effect. The Haiti project was mentioned in chapter I, whereby mobile phones were used to transfer financial subsidies to low-income families for them to repair homes damaged by the 2010 earthquake, since most did not have a bank account. Other initiatives, supported by online information resources, work with women on household money management and developing a savings culture, providing them with the tools they need to get more out of their income and gain autonomy and independence in making financial decisions.

### Colombia: Women Savers in Action

A pioneering initiative in Colombia, this is a saving programme with a gender perspective. It consists of a savings plan designed to improve quality of life. Women who sign up also benefit from a financial education and savings culture plan. The project uses social networks to publicize its activities in the different municipalities.

**Source**: Department for Social Prosperity, 2013 [online] www.dps.gov.co/contenido/contenido.aspx?catID=629&conID=179&pagID=4469 and Proyecto Mujeres Ahorradoras en Acción, 2013 [online] www.facebook.com/mujeresahorradorasdps.

The last but certainly not the least important area where ICTs can bring great benefits for women is in the prevention of and fight against gender-based violence. ICTs can be used to provide georeferenced localization systems of places where women can seek assistance, information on the steps to take in the event of violence, emergency hotlines, online campaigns, coordinated government services (with unified records) and communication proposals for cultural change.

### Brazil: access to and participation in the Network to Combat Violence against Women

This website, launched on International Women's Day 2013 (8 March) by the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women), the United Nations Children's Fund (UNICEF) and UN-Habitat, which also functions as a smartphone application, compiles information on the support services available to women and girls who are victims of violence in the Network to Combat Violence against Women.

It provides emergency numbers, information on rights, and the functions and locations of the Specialized Women's Centres, which offer psychological, social and legal support. It also lists the steps to take in the event of rape, and the smartphone application contains a geographical positioning system, so users can locate the nearest specialized centre, as well as medical centres, police stations and prosecutor's offices.

At the same time, in conjunction with the Centre for Health Promotion (CEDAPS), a non-governmental organization, young female leaders in marginalized communities are being trained to teach their peers about this website and inform them how to identify and deal with violence against women.

Smartphones are also being used to create photographs and videos of situations that represent a security risk, such as poor infrastructure, blocked pedestrian routes, or poor or no lighting, for the purpose of creating interactive digital maps of the favelas. These are then shared with the local authorities so that action can be taken.

**Source**: "Acceso e participação a Rede de Proteção a mulher", 2013 [online] www.youtube.com/watch?v=mx4F4cLG0kQ.

### Colombia and Mexico: end violence, women's rights and safety online

This is a project run by the Association for Progressive Communications (APC), with the support of Funding Leadership and Opportunities for Women (FLOW) of the Dutch Ministry of Foreign Affairs.

A variety of strategies are employed to overcome violence against women, which aim to build women's leadership and ensure their rights and safety online. Initiatives include mapping proof of violence against women that has occurred online or as a result of the use of devices such as mobile phones or computers; action to strengthen women and girls' ability to deal with online violence; and the work of women's rights advocates and Internet rights activists to eradicate such violence. Activities are carried out in seven countries, including Colombia and Mexico.

**Source**: Association for Progressive Communications (APC), "End violence: women's rights and safety online", 2013 [online] www.apc.org/es/node/15192/.

### Peru: National Programme against Family and Sexual Violence

The Ministry for Women and Vulnerable Populations of Peru is using ICTs to prevent and address family and sexual violence. Activities include:

- Prevention: An active campaign is being conducted entitled *Quiere sin violencia, marca la diferencia* ("Love without violence makes all the difference"), aiming to reduce violence against women of all ages. Social networks are being successfully used to reach out to young people.
- Assistance:
  - Line 100: Guidance, counselling and referral to specialized services in cases of family and sexual violence.
  - Line 100 in Action: Emergency assistance following family violence, sexual violence and other high-risk social situations.
  - Chat 100: Online consultation service.
- Data generation:
  - National registry of family and sexual violence.
  - Gender violence research network (Redin): An online resource with a database of research and experts in gender violence. Its implementation was supported by the Spanish Agency for International Development Cooperation (AECID).

During 2012, guidance was provided 44,832 times through Line 100 and 1,832 queries were answered through Chat 100.

**Source**: Ministry for Women and Vulnerable Populations, 2013 [online] www.mimp.gob.pe.

### Guatemala: georeferenced system of local resources and electronic guidance for women

S.O.S. Mujeres is a website that provides resources to guide and assist women who are at risk or are victims or survivors of violence. It contains a map of local institutions in Guatemala classified by department and municipality, including health-care, justice and security institutions and civil society organizations, local networks and local government, along with others that can provide assistance, safety, access to justice, support and advice during the recovery process. The resources can be searched using an online tool that gives georeferenced, real-time information on the resource in question: the name of the institution, its address, location, phone number, opening hours, e-mail address, web page, contact person, together with a photograph of the place and the geographical reference point.

Other resources available on the website include news items, useful links, laws that can be downloaded, and relevant documents and articles.

**Source**: SOS Mujeres, 2013 [online] www.sosmujeres.com/?p=732.

### Take Back the Tech! Activism against gender violence

"Take Back the Tech!" was launched in 2006 by the women's rights programme of the Association for Progressive Communications (APC), a network of more than 150 women all around the world who advocate for online collaboration to achieve social change and women's empowerment through ICT use.

It is a collaborative campaign that takes place annually during the 16 Days of Activism Against Gender Violence (from 25 November to 10 December). The campaign urges ICT users —especially women and girls— to take control of technology and to use ICT platforms (such as mobile phones, instant messaging, blogs, websites, digital cameras, e-mail and podcasts) to end gender-based violence.

Local initiatives inspired by the campaign have sprung up in Brazil, Mexico and Uruguay, among other countries, including independent websites.

**Source**: Take Back the Tech, 2013 [online] www.dominemoslatecnologia.net/.

### Cuba: *Todas Contracorriente*

*Todas Contracorriente* ("Against the tide") is a cultural project that uses music to prevent violence against women. It is headed by the singer Rochy Ameneiro, and benefits from advice from Casa del Alba Cultural, the Ibero-American and African Masculinity Network, and Editorial de la Mujer.

*Todas Contracorriente* aims to foster opportunities for female artists to play a leading role in the fight against gender-based violence and in favour of greater female visibility in a fairer society that is based on respect and a culture of peace.

Launched on March 8, 2011, it was preceded by a violence prevention workshop aimed at musicians, artists and creators and organized as part of the United Nations Secretary-General's campaign "UNiTE to End Violence against Women".

Since its inception, numerous activities have been carried out to address all forms of violence. These include recording the music video *Contracorriente* for online dissemination (www.youtube.com/watch?v=qLTjlURQizw); workshops to highlight the achievements of eminent women; workshops in art instructor schools to prevent violence in music and audiovisual productions; and nationwide tours.

**Source**: Todas Contracorriente, 2013 [online] www.facebook.com/pages/TODAS-CONTRACORRIENTE/125350790902168.

All these initiatives illustrate how ICTs can contribute to women's well-being. The list could expand considerably as ICTs are increasingly being incorporated in women's programmes as tools for their deployment.

### Colombia: *En TIC Confío*

The ICT revolution in the way we communicate and share information has also put women and girls at greater risk, and, in particular, has created new arenas for and forms of violence against women. The most frequent forms of technology-related violence are:

- Online harassment and cyber-bullying.
- Pornography, including child pornography.
- Sexting, whereby phones, webcams or e-mails are used to send sexual images.
- Sexual assault in cases where technology is used to locate the victim, and where rape and assault are recorded in order to distribute the images online or using other means of communication.
- Breach of privacy, involving the unauthorized distribution of intimate images of women and girls through technological means.

*En TIC Confío* (a play on words meaning both "I trust ICTs" and "I trust you") is a web portal developed by the Colombian Ministry of Information and Communication Technologies as part of the country's national policy to encourage the responsible use of ICTs. It is intended to promote the safe use of new technologies, prevent and raise awareness of the risks and dangers, provide information about prevention and legislation, and share success stories about ICT use. The portal also makes it easier to report child pornography, giving users several options for reporting websites with pornographic content, or the abuse of suspected under-age victims.

The project "Strengthening the use of ICTs to combat violence against women and girls" is an example of civil society efforts to combat violence against women in a digital context. In Colombia, one of the participating countries, the project has supported seven proposals to prevent technology-based violence in local organizations within communities where women are more vulnerable and ICT use is still limited; it has also organized workshops to train experts and representatives of local organizations, participated in the "Take Back the Tech!" campaign and produced a national report on ICTs and gender-based violence.

**Source**: Association for Progressive Communications (APC) "Voces desde espacios digitales: violencia contra las mujeres relacionada con la tecnología" [online] www.apc.org/es/system/files/apcwnsp_mdg3issuepaper_2011_web_es_pdf.pdf; Ministry of Information and Communication Technologies, "En TIC Confío" [online] www.enticconfio.gov.co/enticconfio.html; Organización Colnodo [online] www.colnodo.apc.org/proyectos.shtml?apc=h-xx--81&x=99.

## C. ICTs used to promote gender equality

Finally, the third area where ICTs can contribute to gender equality is in the consolidation of structures, channels, organizations, consultations, messages and capacities that have a gender perspective, using ICTs to make strides towards gender mainstreaming, strengthening public services and transforming the Internet into a place for sharing and fostering more egalitarian ideas and attitudes.

The huge potential of ICTs in this regard has not gone unnoticed. Many websites and applications have been created to heighten public awareness, communicate on equality and provide training, which have largely been developed by international organizations, machineries for the advancement of women and women's organizations working towards these goals.

The following websites specialize in the generation and dissemination of knowledge on gender relations. They boast repositories of documents, libraries, discussion forums, web links, methodologies and databases, all of which can be accessed by students, researchers, technicians and State professionals.

### Gender Equality Observatory for Latin America and the Caribbean

In the Quito Consensus, adopted at the tenth session of the Regional Conference on Women in Latin America and the Caribbean (Quito, 2007), the member States of ECLAC called for that organization to create an equality observatory that would help strengthen machineries for the advancement of women.

The Gender Equality Observatory for Latin America and the Caribbean was implemented by the Gender Affairs Division of ECLAC, in collaboration with the United Nations Population Fund (UNFPA), the Pan American Health Organization (PAHO), UN-Women, the Spanish Agency for International Development Cooperation (AECID) and the Ibero-American General Secretariat (SEGIB). The Observatory is one of the analytical and statistical tools that have made it possible to follow-up on the agreements adopted in the Quito Consensus (2007) and the Brasilia Consensus (2010). In that regard, it has analysed trends at the heart of gender inequality in the areas of physical autonomy, economic autonomy and autonomy in decision-making, using a selection of indicators and the analysis of public policies linked in turn with the Millennium Development Goals and implementation of the Convention on the Elimination of All Forms of Discrimination against Women.

It has gathered a general corpus of knowledge, comprising legislative records on violence against women, abortion, care and quotas, and political and electoral systems, and a compilation of fair policies on gender equality, which cover national practices.

The Observatory also responds to the request of the Governments, made in the Brasilia Consensus (2010), to carry out training and capacity-building activities for exchanging and disseminating experiences aimed at public policymakers and political operators. These activities are aimed at compiling the practices employed in the countries and making progress in formulating public policies using the Observatory data. This request is fulfilled through technical assistance and the promotion of South-South cooperation.

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), "Gender Equality Observatory for Latin America and the Caribbean", 2013 [online] www.cepal.org/oig/default.asp?idioma=IN.

### *América Latina Genera*

This is a regional portal that facilitates access to and sharing of information, communication, participation and collective learning in order to promote gender equality and women's rights.

The website is part of the regional project entitled "América Latina genera, knowledge management for gender equality" developed within the framework of the regional cooperation fostered by the United Nations Development Programme (UNDP) for Latin America. The portal contains a vast array of resources, including a comprehensive

library with almost 800 publications and tools; a bazaar showcasing around 200 Latin American initiatives that promote gender equality; details of the training available; theoretical contributions on different areas of work; specialized resources by topic; an observatory with country-by-country information; and a space for news items and events.

The project promotes opportunities for sharing and capacity-building on the gender perspective, both virtual and face to face, such as virtual forums, knowledge fairs, and communities of practice.

**Source**: United Nations Development Programme (UNDP), " "América Latina Genera: Gestión del conocimiento para la igualdad de género", 2013 [online] www.americalatinagenera.org/es.

### Network of Documentation Centres on the Rights of Women in Central America (CDMujeres)

This is a project funded by the Spanish Agency for International Development Cooperation (AECID) and coordinated by the Women's Studies Research Centre (CIEM) of the University of Costa Rica and the Institute for the Promotion of Social Studies (IPES Elkartea) of Pamplona (Spain).

The aim of the network is to facilitate access to gender studies and specialized documentation on women's rights in the region. It also seeks to optimize the dissemination of information and documentation, as well as to promote cooperative work and publicize women's rights campaigns, using the Internet and social networks for greater impact and visibility.

The network was launched in April 2012 with 17 documentation centres, and as of mid-2013 it is composed of 27 centres run by Central American feminist and women's organizations, spearheaded by associations, public institutions and universities.

**Source**: Red de Centros de Documentación en Derechos de las Mujeres en Centroamérica, 2013 [online] http://cdmujeres.net/.

### GEM: Gender Evaluation Methodology for Internet and ICTs

GEM is an initiative of the women's rights programme of the Association for Progressive Communications (APC). It is an evaluation methodology that helps integrate gender analysis into the planning or evaluation of any social change initiative. It offers a systematic method for assessing whether ICTs are really improving women's lives and gender relations.

Besides a step-by-step evaluation methodology, GEM suggests strategies for incorporating gender analysis into the evaluation process.

Originally developed in 2002, during a second phase of adaptation between 2007 and 2009 it benefited from contributions from grassroots organizations specialized in rural ICT projects, telecentres, local initiatives and the impact of ICT policies on gender. During the second phase, a set of guidelines was produced for workshop facilitators and evaluation professionals in these areas.

**Source**: Gender Evaluation Methodology for Internet and ICTs (GEM), 2013 [online] www.genderevaluation.net/.

Furthermore, the nature of the Internet has made it an ideal place for communicating about and raising awareness of egalitarian values, for hosting blogs, online magazines and other websites dedicated exclusively to gender equality issues, as well as for launching online campaigns on various subjects with the aim of advancing towards greater levels of equality.

### Nicaragua: *Puntos De Encuentro* ("meeting points") for the transformation of day-to-day living

*Puntos de Encuentro* ("meeting points") is a Nicaraguan organization that works to help young and adult women exercise their rights and autonomy on a day-to-day basis. It uses media in combination with training and partnerships to promote and defend gender- and generational-based equality, respect for diversity, the rejection of discrimination and violence, and relationships based on mutual respect.

The project uses soap operas and television series to spread its messages and foster action for social change in an appealing and innovative way. It has developed two productions presenting realistic, everyday and entertaining stories that illustrate how to deal with domestic violence and how to challenge unequal power relations, with the aim of building more egalitarian relationships.

The organization is also involved in radio production. This comprises the DKY FM radio programme, theme-based promotional tours (face-to-face contact with listeners), the Central American Youth Communicator Network, and a monthly magazine that is widely disseminated online and on paper (26,000 copies). Training is also given and an information and documentation centre specializes in the history of the women's movement in Nicaragua and in the defence of women's human rights in Central America.

**Source**: Puntos de Encuentro para la Transformación de la Vida Cotidiana, 2013 [online] www.puntos.org.ni/.

### Mexico: news for women

The Communication and Information Centre for Women (CIMAC) was founded in 1988 by a group of communication professionals. Its mission is to generate and publish information; ensure that journalists incorporate women's human rights into their day-to-day work; and promote the media as a tool for educational and social transformation and as a strategy that enables civil society organizations to communicate their activities, demands and proposals. It also endeavours to influence national and global agendas in favour of human rights and social equity.

One of its programmatic linchpins is a multimedia news agency that supports the cause by producing and distributing written information, generating radio news and updating its website.

**Source**: Comunicación e Información de la Mujer, 2013 [online] www.cimac.org.mx/.

The Internet is also a place for actively sharing, raising awareness and communicating about women's role in ICT use, as well as for promoting a greater role for women in the information society.

### UNESCO Regional Chair on Women, Science and Technology in Latin America

This is a centre that provides training and creates and disseminates knowledge on the participation, contributions, uses and needs of women in the scientific and technological fields. The centre runs national, regional and international programmes and projects that link the gender perspective to education in the sciences, technology, innovation, health and communication. It encourages the creation of virtual networks and communities for learning and practice.

Virtual courses and workshops are available through the virtual classroom of the UNESCO Regional Chair on Women, Science and Technology in Latin America. These activities offer a flexible, interactive, and in-depth mode of learning. They provide conceptual foundations and pedagogical tools underpinned by the wealth of methodology and theory that gender studies contribute to various fields such as science and technology, the information and knowledge society, social communication and youth. An up-to-date online library and multimedia resources are also available.

**Source**: UNESCO Regional Chair Women, Science and Technology in Latin America, 2013 [online] www.catunescomujer.org/catunesco_mujer/index.php.

The Internet is not only a place for promoting and raising awareness of positive action; it can also be used to combat criminal behaviour and negative attitudes. Various ICT-based initiatives and devices have been launched to identify digital content that constitutes a direct attack on the dignity and rights of women and, where possible, report and remove it.

### Mexico: preventive cyber policing

This is a unit set up by Mexico City's Department of Public Security. Its main objective is to prevent the commission of crimes in which the Internet is used as a mode of operation, by monitoring websites and building a closer relationship with the public, focusing on the protection of children, adolescents and adults.

The unit's 30 staff members underwent 15 days of training from the national police of the Republic of Korea. Twenty officers "patrol" websites where crimes such as extortion, child pornography, prostitution of minors or cyber-bullying are committed. The other 10 officers work to prevent and inform the public about these offences by giving talks in schools and workplaces and using social networks.

**Source**: Policía Cibernética Preventiva, 2013 [online] http://ow.ly/i/25xyX.

The Internet has achieved a very important goal when it comes to promoting gender equality, which is to heighten the visibility of the women's associative movement (including women leaders, rural women, domestic workers and entrepreneurs). First, an online presence allows these organizations to publicize their work, spread their values and their messages, recruit more women and contribute to collective empowerment. Second, ICTs also serve as a channel for building up these organizations, since online training initiatives and applications enable them to increase their presence (through social networks, online marketing, forums and chats).

### *Abriendo Mundos*: migrant women, women with rights

This is a website for women migrating from Colombia, Ecuador, Peru and the Plurinational State of Bolivia to Spain and the European Union. It provides useful information, studies and best practices. A joint initiative of the European Union and Oxfam Great Britain, it aims to promote the concept of a global and borderless world in which the right to migrate is recognized and protected as a human right.

The focal points of this project are Fundación Esperanza in Ecuador and Colombia, Corporación Humanas in Colombia, Coordinadora de la Mujer and Colectivo Cabildeo in the Plurinational State of Bolivia, Flora Tristán Women's Centre in Peru and Intermón Oxfam in Spain, which, with the Uruguayan organization *Cotidiano Mujer* running the virtual platform, hope to be able to support women who decide to migrate.

**Source**: Abriendo mundos: Mujeres migrantes, mujeres con derechos, 2013 [online] http://abriendomundos.org/?cat=8&ttm=2.

The final examples detailed below illustrate how ICTs have become allies in the drive to mainstream a gender perspective and build capacity within organizations**.** Machineries for the advancement of women and other support organizations, besides gradually building up an online presence, are providing institutions with online material and resources to help them integrate the gender perspective into policy. Online training programmes have a unique role, owing to their impact on gender mainstreaming.

### SICA training programme on gender, integration and development

This is a training initiative of the General Secretariat of the Central American Integration System (SICA) and the Technical Secretariat for Women of the SICA Council of Ministers for Women's Affairs of Central America and the Dominican Republic, sponsored by the Spanish Agency for International Development Cooperation (AECID) and managed by the Economic and Technological Development Distance Learning Centre Foundation (CEDDET Foundation).

Its goal is to help build institutional capacities in the SICA region in order to make headway in the Central American integration process from the perspective of gender equality and equity.

Four courses were run in 2012 and 2013. A total of 120 professionals participated, all of whom were involved in Central American integration and had a need or an interest in acquiring knowledge that would increase the degree of integration of the gender perspective in their institutions and ensure that their work is based on the principles of gender equality and equity within a framework of sustainable human development.

**Source**: Economic and Technological Development Distance Learning Centre Foundation (CEDDET Foundation), "Programa SICA de capacitación en integración regional", 2013 [online] www.sica-ceddet.org/index.php?option=com_k2&view=item&id=344&lang=es.

### ECLAC: distance-learning courses on gender equality

During the eleventh session of the Regional Conference on Women in Latin America and the Caribbean, the Governments of the member States of the Economic Commission for Latin America and the Caribbean (ECLAC) adopted the Brasilia Consensus (2010), which, among other matters, emphasized a need for training, exchange and dissemination activities with a view to the formulation of public policies on gender equality. In this context, the Division for Gender Affairs of ECLAC, under the auspices of the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) and supported by the Latin American and Caribbean Institute for Economic and Social Planning (ILPES), has developed a series of distance-learning courses for national entities in the countries of the region on shaping and monitoring public policies on gender equality. The first courses were so successful that they are now being run for a second and third time. Over 500 professionals and technicians have now been trained.

The introductory course on gender statistics and indicators received very positive feedback. Its participants included staff from machineries for the advancement of women and the national statistical institutes of 22 Latin American and Caribbean countries. The course is designed for technicians and professionals whose work includes generating and using gender statistics to design and formulate public policy.

The aim of the course on time-use surveys is to strengthen regional capacity among producers and users of statistics to incorporate and improve methodologies for the collection of time-use data and methodologies for analysing the activities of different population groups as an input to the formulation of legislation and policies that improve the distribution of total work time between men and women.

The course on public care policies targets the same individuals, as well as social development and labour ministries and other bodies responsible for the formulation, implementation, monitoring and evaluation of policies on caring for dependants and reconciling work and family life.

The course on measuring violence against women through national surveys was run by the five regional commissions as part of the United Nations Development Account project entitled "Enhancing capacities to eradicate violence against women through networking of local knowledge communities".

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC) [online] http://cepal.org/mujer.

### Mexico: *Puntogénero*, training for equality

The Directorate of Training and Professionalization of the National Women's Institute of Mexico (INMUJERES) is implementing several strategies to increase gender-based training and professionalization among public officials:

- Classroom training and certification in occupational functions linked to the principle of equality between women and men
- Preparation of labour competency standards on gender
- A selection of online courses

The online courses are a source of continuous learning activities, designed to ensure that learning outcomes are applicable and useful both in the work of heightening awareness of and training in gender and in the various steps needed to build equality policies. The following courses are currently available:

- Basic course on gender
- Prevention and assistance with regard to sexual harassment
- Gender in public planning and budgeting
- Gender-based discrimination in the workplace
- Human rights reform and up-to-date constitutionality review

The website includes an online catalogue of professional gender services (Caliseg) that contains information on individuals or entities that offer specialized gender services such as dissemination, communication, training, research, translation, specialized assistance for specific groups, preparation of teaching materials or publications and consulting services for the design, implementation and evaluation of public policies on equality and equity between women and men.

**Source**: National Women´s Institute, "Puntogénero: Formación para la igualdad", 2013 [online] http://puntogenero.inmujeres.gob.mx/.

### PROGEO, management programme with a gender focus

This is a programme run by the Network of Latin American and Caribbean Women in Management (Women in Management - WiM). It is intended to provide a place to meet, debate and share ideas for men and women who work on and study the issues of gender, leadership, and developing women in management, and who are seeking to promote gender equality in Latin America and the Caribbean.

The overall objective of PROGEO is to use ICTs to design and implement distance-learning programmes that contribute to a greater understanding of and training in gender-based management issues among women in the region. It also aims to narrow the technological gaps found in most countries by using ICTs to promote equality of access to them. In the five years it has been active, the programme has welcomed around 406 participants (386 women and 20 men) from 25 countries.

**Source**: Women in Management, 2013 [online] www.wim-network.org/.

### El Salvador: Training School for Substantive Equality

The school aims to help reduce gender inequality and discrimination by institutionalizing a vocational training policy in the civil service that enhances the capacity of State institutions to meet their obligations to respect, protect and guarantee women's rights and further the cause of substantive equality.

The school, an initiative of the Salvadoran Institute for the Development of Women (ISDEMU), offers four inter-related programmes:

- Virtual training platform: this is an e-learning platform providing access to training courses whose content corresponds to the "ABC of substantive equality" course, with which civil servants must demonstrate familiarity and competency in their work.

- Institutional culture programme: to boost the capacities and competencies of civil servants, training modules are available on setting up and running gender units within public institutions responsible for monitoring and evaluating compliance with national gender equality legislation.
- Open teaching platform: this was developed in conjunction with national women's organizations.
- Centre for research, analysis and documentation: the centre's purpose is to build capacity to analyse national statistics from a women's rights perspective, to reach a better understanding of areas that have major gaps and generate discrimination and inequality.

**Source**: Salvadoran Institute for the Development of Women (ISDEMU), "Caminando hacia la igualdad sustantiva", 2013 [online] www.isdemu.gob.sv/.

## D. Concluding remarks

ICTs are not only important potential allies for furthering the advancement of women and gender equality in the world and in the region, but they are in fact already having an impact: many public bodies, international organizations, associations, universities and firms are using them in pioneering, purposeful and inspiring ways to promote, manage, share and multiply "e-equality".

While still lacking organization, these initiatives are much more numerous and powerful than they at first seem and they will no doubt be influential in the bid to build an information and knowledge society that encompasses and promotes equality.

But, to achieve this objective, this new territory must be populated with far more strategy, pedagogy, investment, initiatives, innovation, networks, commitments and partnerships, so that gender equality can be firmly situated in the world of technology, and technology in the world of equality.

In addition, the initiatives already under way need to be stronger and more sustainable, which will involve increasing their visibility and their financial resources, bringing them together in the form of communities that generate significant critical mass, and including them at the heart of Latin American and Caribbean digital agendas.

Comprehensive strategies must thus be established in public policies (as has already been done in some countries) that support the full inclusion of gender in the information society, and that respond to a drive towards new and ambitious measures in areas such as: encouraging women to pursue technological and scientific vocations; actively promoting female technological entrepreneurship; creating new online content and media for the development of micro, small and medium-sized enterprises headed by women; the technological modernization of economic activities and sectors that are primarily made up of women, all of which are crucial to social well-being (health, education, services and care); the digital inclusion of groups of women who are excluded or who have the least contact with technology; promoting women's participation in the decision-making areas of the ICT sector; expanding women's role in social networks; strengthening the ICT profile of machineries for the advancement of women and pro-equality organizations; communicating egalitarian values over the Web; and combating digital content that denigrates women.

It is clearly necessary to promote the expansion of the mobile information society, actively including women as key beneficiaries and protagonists of this new technological revolution which, more than any other, is inclusive of the majorities. Solid links must be forged between all types of agents likely to promote e-equality in the region: machineries for the advancement of women, bodies responsible for sectoral ICT policies, women's associations and companies in this sector.

With this outlook, it is much more likely that a handful of initiatives —worthwhile, but still few and far between— can be rapidly stepped up and transformed into an ambitious policy for an equality-based digital economy with discernible results.

# Digital agendas and the gender perspective

The public policy challenge for the information society from a gender perspective is twofold: steps must be taken, on the one hand, to seize the opportunities afforded by the digital revolution and, on the other, to minimize the risks of women falling behind. The challenge is political as well as technological, and success will depend on the willingness to implement digital strategies to mainstream the gender perspective, taking advantage of the new options offered by ICTs for pushing forward the gender equality agenda.

The Latin American and Caribbean region has made strides towards the information and knowledge society. Most of the countries in the region have drawn up national agendas or, at least, major sectoral ICT policies. Thus, the region now boasts very interesting digital inclusion experiments for expanding telecommunications infrastructure and upgrading public services and education. Access to mobile communication devices and Internet have yielded positive results and have been invaluable in enhancing conditions for the population as a whole, modernizing public administration and, albeit to a limited extent, boosting the competitiveness of Latin American and Caribbean economies.

In the region, policies for digital inclusion and for promoting dissemination of ICTs in education and public services have actually benefited women as well as men. However, gender asymmetries that hamper women's full participation on an egalitarian basis in the information society suggest the need for a specific, active and cross-cutting approach to gender equality in digital agendas.

Hence the danger that unsubstantial public policies for change and digital inclusion or failure to bring policies in line with new challenges will ultimately reproduce and even exacerbate the high rate of productive heterogeneity and the social and gender inequalities in the region.

## A. Digital agendas as an instrument for building the digital economy and advancing equality

### 1. Designing and establishing digital agendas in Latin America and the Caribbean

Over a decade ago, the countries of the region started to design and implement digital agendas, which have since been sanctioned by the two phases of the World Summit on the Information Society (held successively in 2003 and 2005) and by the inclusion of ICT issues in the United Nations Millennium Development Goals.

In this context, the Governments of countries in the region adopted the Plans of Action for the Information Society in Latin America and the Caribbean: eLAC 2005-2007, eLAC 2008-2010 and the current plan, Plan of Action for the Information and Knowledge Society in Latin America and the Caribbean (eLAC 2015). The different regional eLAC plans advocated developing and strengthening national e-strategies and reflected the broad consensus concerning the relevance and advisability of formulating public policies for ICT dissemination and active integration of the region into the information society.

Between the late 1990s and mid-2013, most of the countries in the region had adopted at least one national e-strategy document and had implemented different ICT policy initiatives (ECLAC, 2013).

These political efforts have been embodied in a number of initiatives. Advances in ICT access and use by citizens, and especially in schools, or the success in improving the efficiency and transparency of public management are well known. A number of exemplary initiatives have been launched in the region in recent years. They include the following: Argentina Conectada and Connecting Equality in Argentina; the National Broadband Plan in Brazil; the Enlaces Programme and Chile Compra in Chile; eEstrategia Vive Digital and the online government programme launched in Colombia; the National Strategy for the Information Society (e-Dominicana) in the Dominican Republic; and the Ceibal Plan in Uruguay.

While these strategies vary from one country to the next in terms of their institutional framework, many of them have been gaining importance and political priority, and some countries have even established ministries or secretariats with responsibility for telecommunications and the information society within the Office of the President.

The objectives and main lines of action of the strategies have evolved over time in line with progress in ICTs, with their growing importance for socioeconomic development and with consolidation of the issue as a public policy matter. Nevertheless, expanded telecommunications infrastructure and access remain by and large the central components in the national information society strategies in Latin America and the Caribbean. Strategies relating to electronic learning (e-learning) and electronic government (e-government) are the most common and most developed sectoral strategies in the region and across much of the world. In other sectors, such as electronic health-care provision (e-health), promotion of the ICT industry or dissemination of these technologies in the corporate world, projects and initiatives have been launched but are not always linked to a national strategy in the sector (ECLAC, 2013).

The strategies follow various organizational and coordination schemes depending on the country in question, ranging from decentralized models, involving authorities from different sectors and of the same hierarchical level under a supervisory coordinating unit (as in the case of Chile) to centralized models in which a specific authority has pre-eminence over the different sectors, as is the case, for example, in Colombia.

Notwithstanding the institutional advances of the digital agendas in the region, only in a few cases do these agendas represent a clear national policy priority; nor are there any effective leadership bodies that coordinate with other areas of government and with budgets commensurate with their objectives. Another common feature of these experiences is lack of continuity in the strategies, due to policy changes. This, admittedly, is typical in a democracy, but, in such cases the strategies are not treated as State matters and thus, it is not possible to define and fulfil objectives that extend beyond the period of a given administration.

## 2. Digital policies in the region: development and areas of coverage

The ICT programmes and projects implemented in the region fall into two different categories depending on the intensity, degree of dissemination and complexity of the national and sectoral ICT strategies. The first covers the period from the late 1990s to 2006. The second period runs from 2007 to the present. The differences observed relate both to the diversity of areas covered by the policies and to the number of initiatives under way during each period. This shift towards more complex policies was strongly influenced by the technological cycles, in particular by the development of Internet, which originally allowed for relatively limited use, which with the incorporation of broadband expanded to multiple uses and applications. This process has also been influenced by the wider experience with ICTs as a target for regional and global public policies.

The main ICT strategies formulated and executed in the initial period sought to reduce the digital divide, in terms of both access and use. In parallel, the Governments promoted ICT adoption at the State level and in the education sector, and some countries developed initiatives in other spheres, such as promotion of the ICT goods and service providers sector. The policies designed to reduce the digital divide were directed mainly towards improving telecommunications infrastructure, installing shared Internet access points, generating utilization capacities and boosting the IT infrastructure.

In the second period, from the middle of the past decade to the present, information society policies in the region have achieved a wider dissemination at the same time as they have become more complex, encompassing new areas of action. As in the past, the main initiatives seek to disseminate crucial infrastructure, but also to promote its use

and adoption by the population. Sectoral strategies have included new initiatives (such as the *One Laptop Per Child"* or "1: 1" programmes in education or open government in e-government), and gradually new areas of action, such as e-health and in some cases initiatives geared to promoting gender equality have been incorporated. During this period's ICT strategies, the initiatives centred on the roll-out of second-generation broadband.

In the recent period, ICT strategies have been consolidated thanks to national broadband plans that were first drawn up towards the end of the decade of the 2000s and which were characterized by an integrated approach bearing in mind not only connectivity but also use and appropriation, in addition to the expansion of the offer of applications. The National Broadband Programme of Brazil was the first such initiative in the region. Other countries gradually drew up their own strategies for broadband expansion. They include Argentina (National Telecommunications Plan: Argentina Connected); Chile (Todo Chile Comunicado (Connecting all Chile)); Colombia (Vive Digital); Costa Rica (National Broadband Strategy); Ecuador (National Broadband Plan); Mexico (Programme for Strengthening Broadband); and Peru (National Broadband Development Plan). In terms of digital literacy programmes, new, more targeted efforts have been introduced, such as the Vasconcelos 2.0 National Digital Inclusion Campaign, designed for adults who have not had any previous access to technology.

Policies for developing an enabling environment[1] range from regulation of the sector to more specific issues relating to Internet governance and in particular to promoting public interest (in areas such as protecting personal data, network neutrality, free Internet access and information security). Several countries have adopted new legislation in these areas and are engaged in reforming their regulatory frameworks in order to respond to a converging environment in which the boundaries between telecommunications, Internet, broadcasting and the mass media as a whole are blurred.

With respect to the sectoral digital strategies, in the education sector, the main initiatives have started to move beyond the provision of equipment and connectivity to schools, although these remain priority issues on the agenda. These initiatives promote continuous and ongoing training in ICTs (basic and specialized literacy) and through ICTs.[2] Some initiatives seek also to promote distance training (e-learning, self-instruction and learning communities), which calls for the production of digital educational resources and online courses. In addition, based on the experience with the Plan Ceibal[3] of Uruguay, several countries are pushing forward "1:1" programmes (one computer per student) in education.

Intensive ICT use in government emerges as a priority in many countries of the region and this is reflected in the different plans of action under way and the new public management trends being incorporated. Some countries will be implementing ambitious e-government programmes. Colombia, for example, launched the Online Government Programme, which rapidly placed it at the top of the world ranking in e-government. Specific initiatives in areas such as public procurement have also been successful, which means that several public portals are already operational (for example, those of Argentina, Brazil and Chile). The term "new trends" refers to a model of people-centred open government, whose focus is transparency and participation and which some countries in the region have started to implement.

Sectoral health initiatives which provide for specific treatment are few and far between in the region. Various projects have been observed but on the whole they are not part of a national sectoral strategy. These include the University Telemedicine Network in Brazil (RUTE) and the electronic clinical file-sharing platforms (ECE) being implemented in Mexico.

Lastly, the number of ICT dissemination initiatives or initiatives for incorporating ICTs into the production sector or promoting a national ICT industry is still very limited. A number of countries, including Argentina, Brazil, Costa Rica, Mexico and Uruguay and, more recently, Colombia, have been taking steps to promote the software industry. The development of a digital content industry[4] has attracted even less attention and there have been only a few direct initiatives for disseminating ICT use and ownership in the production sectors. They include the MiPyme

1 Reference is made to policies that foster an enabling environment at the national and international level for building the information society.

2 These include the Digital Skills for All Programme (Programa Habilidades Digitales para Todos (HDT)) of Mexico, a macro project for ICT development and use in basic education, whose potential outreach will be 9.2 million girls and boys and 500,000 teaching staff.

3 The Ceibal Plan of Uruguay or "1:1" programme is one of the most significant initiatives carried out in this field in the whole world. Launched in 2007 as a pilot project, it was extended to the whole country in 2008. It provides not only computer equipment but also Internet connectivity for the school centres and other public places, as well as for homes.

4 In Argentina, for example, steps have been taken to set up audiovisual technology poles and the Argentine Audiovisual Universal Content Bank (BACUA) was established in 2010; Colombia adopted the Policy for Promotion of a Digital Content Industry in 2011, while, in Brazil, the Ministry of Communication is developing a national policy on creative digital content.

Digital (Digital micro, small and medium enterprises) programmes in Colombia, the Incentive Programme for the Use of Information Technologies in Micro and Small Enterprises (PROIMPE) and Prosoft programme in Brazil and the PROSOFT programme (component of user subsidies) in Mexico.

In short, the progress of ICT infrastructure in most countries, the advance of electronic government and, in general, the extent to which societies are prepared to address the new challenges associated with the information society attest to the effectiveness of national digital strategies. In fact, during the past decade, the countries of the region registered absolute advances in different international indicators that measure progress in infrastructure (those of the International Telecommunication Union, ITU), electronic government (United Nations) and preparation for the information society (World Economic Forum).

At the same time, it should be recognized that, relatively speaking, the region has not managed to advance —and in fact, has even regressed— in global rankings compared with other regions. This shows that the efforts have not kept pace with advances at the international level. It is interesting to note, however, that the leading countries in the region in the three indices referred to above, which have even managed to improve their relative positions in those indices, are those that have maintained consistent ICT strategies and a certain degree of development: for example, Uruguay, Colombia and Barbados. Clearly, progress towards ICT dissemination, use and adoption depends on the implementation of consistent integrated national agendas over a period of time.

Apart from the successful cases mentioned above, the region has in general been facing the challenge of designing and implementing more integrated digital policies and also of linking them with innovation and competitiveness policies as well as with gender equality. It should be borne in mind that the close of the digital gap in access and use is scarcely dependent on digital inclusion policies, but rather on an effective shift in the development model and the production structure in the region towards more knowledge- and technology-intensive sectors.

Once the necessary advances in ICT use and dissemination have been achieved across the region, effective ICT dissemination among all the economic actors will ensure that these technologies underpin changes in production patterns and help to consolidate new sectors linked to these services. This would help to expand the supply of better-skilled and better-paid jobs and would contribute to a stronger performance by companies and sectors which find it difficult to absorb new technology. In this regard, it should be recognized that ICT dissemination and incorporation in the production sector as well as in the development of sectors that offer ICT products and services have not always been among the policy priorities in the region.

In such policies, the gender perspective appears to be downplayed or completely absent. The important point to remember is that when ranked and implemented consistently, digital strategies have yielded significant results in terms of inclusion and digital development. Hence, the incorporation of gender equality objectives in such strategies can be instrumental in enabling women to take a prominent part in the digital society.

**Box VI.1**
**Gender equality and broadband access**

Abundant empirical evidence attests to the economic impact that broadband and its positive externalities have had on innovation, productivity and corporate restructuring. Under its @lis2 project, co-funded by the European Commission, the Economic Commission for Latin America and the Caribbean (ECLAC) has been working intensively on the formulation of public policy recommendations for expanding broadband penetration in the region.

The economic contribution of broadband as a technology for general use shows up in numerous ways. The first relates to the development of telecommunication networks and takes shape in the same way as any infrastructure project: the roll-out of broadband creates employment and has an impact on the economy as a whole generating multiplier effects. The second effect relates to the spillover on the economic system as a whole, which influences corporations as well as individuals in their homes. On the one hand, broadband use by the production sector results in enhanced productivity, which contributes to GDP growth. On the other hand, private use by individuals increases the real income of households since it expands the possibilities of joining the labour market and can support and improve education processes, leading to poverty reduction, while at the same time boosting economic growth.

Recognizing the importance of women's access to ICT, and in particular to broadband as a key pillar of development, the participants at the seventh meeting of the Broadband Commission for Digital Development of the United Nations agreed to pursue gender equality in access by the year 2020. This new commitment is the decisive outcome of the first meeting of the Working Group on Gender of the Broadband Commission, held in Mexico City on 16 March 2013.

Box VI.1 (concluded)

The Broadband Commission for Digital Development was established in 2010 by the International Telecommunication Union (ITU) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) in response to an appeal by the Secretary-General of the United Nations for further advances towards the Millennium Development Goals. The Commission seeks to promote broadband in the international policy agenda and considers that the expansion of broadband access in all countries is key to stepping up progress towards these objectives by 2015. Established in 2012, the Commission's Working Group on Gender has defined the following objectives:

- To promote the digital inclusion of women.
- To empower women through digital literacy and skills-building.
- To promote the development of gender-sensitive applications (monitoring violence against women, etc.); in association with the private sector and civil society.
- To foster the provision of public services that cater for the specific needs of women and their environment.
- To promote technological training and the most attractive employment for children and young women.
- To promote digital entrepreneurship among women in the interests of social innovation.
- To foster protection of girls and women when they are online.
- To contribute to development post-2015.

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), *Conectados a la banda ancha: Tecnología, políticas e impacto en América Latina y España*, Edwin Fernando Rojas, 2012, Broadband Commission for Digital Development: www.itu.int/net/pressoffice/press_releases/2013/08.aspx.

## B. The gender perspective in digital agendas in Latin America and the Caribbean

This section reviews policy documents on which the strategies are based to determine the extent to which the gender perspective is mainstreamed into the digital agendas of selected countries considered representative of the situation in the region: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Paraguay, Peru and Uruguay. . More detailed examples are also provided of the inclusion of the gender perspective in digital policies in the region (Camacho, 2013).

### 1. Overview

In the analysis of gender mainstreaming into the selected digital agendas, references to the gender issue are taken into account especially references to specific initiatives for promoting gender equality and to greater participation by women in the digital ecosystem, in the different policy areas.

The analysis of digital policy documents reveals that gender mainstreaming is referred to in discursive statements and is one of the important explicit aspirations of most of them. Three basic approaches to this theme are identified: (i) The need for an equitable participation of men and women in the information society; (ii) ICTs as tools for achieving equity; and (iii) ICTs as tools for reducing gender violence. Only in rare cases, however, does this conceptual recognition filter through to policy initiatives.

Table VI.1 identifies the main issues addressed in digital policies and agendas of the selected countries and the inclusion or not of specific gender initiatives.

Clearly, efforts are being made to provide equal opportunities through the use of ICTs, whether through actions designed to promote digital inclusion, the improvement and accessibility of public services through ICTs or their use in promoting a wider coverage and in improving the quality of health and education services. These initiatives clearly are beneficial to all citizens, including girls and women. However, as shown in the table, most digital agendas considered do not formulate specific actions to address gender issues even in the priority areas where efforts are made to combat the situations of inequality faced by many women in relation to the use and ownership of ICTs whether as citizens, students, workers or businesswomen.

Apart from the national digital strategies, all countries implement various public and private initiatives that seek to support a stronger role for women in the information society (see chapter V). But these are usually just one-off projects, often driven by non-governmental organizations or international organizations and could benefit enormously from a boost at the national level led by the digital agendas.

The digital strategies being implemented in Dominican Republic, Ecuador and Mexico are of particular interest, since they actually contemplate specific actions geared to promoting gender equity.

**Table VI.1**
**Digital agendas (selected countries): inclusion of the gender dimension and principal performance areas**

| Country | Document | Main components | Inclusion of gender initiatives |
|---|---|---|---|
| Argentina | National Telecommunications Plan "Argentina Conectada" (2011) | Infrastructure and connectivity, contents and applications, human capital, financing and sustainability, legal framework | None |
| Brazil | Digital agenda: National Broadband Plan, 2010-2014 | Infrastructure and connectivity, training and content development | None |
| Chile | Agenda Digital Imagina Chile 2013-2020 | Connectivity and inclusion, environment, education and training, innovation and entrepreneurship, services and applications | None |
| Colombia | Plan Vive Digital, 2010-2014 | Social inclusion, competitiveness, education, infrastructure, productivity, support for micro, small and medium-sized enterprises (MSMEs) | None |
| Costa Rica | National Telecommunications Plan (2010-2014) and Digital social agenda | Infrastructure, universal access, economic development with ICTs, environment and social inclusion (digital literacy, health and education) | None |
| Ecuador | Digital Strategy for Ecuador 2.0 (2011) | Universal access, infrastructure, e-government, education, productivity, inclusive information society and integration with the National Plan for Good Living | Geared to the use of ICTs for combating gender violence, and to training women to use ICTs to strengthen their organizational skills |
| Mexico | Digital Agenda mx (2011-2015) | Universal access, equity and social inclusion, education, health, research, innovation and development | Integration of the gender issue into the strategic area of equity and social inclusion<br>Development of various platforms that support the inclusion of women, for example: Women entrepreneurs and businesswomen, a life free of violence, local development with women, Punto género, "El Avance Político de las Mujeres en la Mira" a forum for civil society organizations and Sistema de Indicadores de Género (a system of gender indicators) |
| Paraguay | ICT Executive Plan (2012) | Electronic government, industry and electronic commerce, digital inclusion, ICT legal framework and infrastructure | None |
| Peru | Digital Agenda 2.0 (November 2011) | Universal access, building competencies, access to services, digital government, ICT industry, productivity, competitiveness and innovation, promoting the digital agenda in public policies | None |
| Dominican Republic. | National Strategy for the Information Society (e-Dominicana, 2004) | Infrastructure and access, human capital development, e-government, enterprise, employment and business ventures, legal framework | Yes (initial version) |
| Uruguay | Digital Agenda, Uruguay, 2011-2015 | Universal access, education, citizen participation, e-government, production, health, environment | None |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of K. Camacho (2013), *Análisis de la integración de la perspectiva de género en las agendas y políticas digitales de Latinoamérica y el Caribe* (LC/W.541), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC) (2013) and official documents from the countries.

**Box VI.2**
**Strategic plans for information and communications technologies and gender mainstreaming in the Caribbean**

Saint Kitts and Nevis and Saint Vincent and the Grenadines have mainstreamed the gender perspective into their strategic ICT plans. The Saint Vincent and the Grenadines National ICT Strategy and Action Plan 2010-2015 establishes that ICT potential must be harnessed in order to address the country's problems with respect to poverty, social injustice and gender inequalities. The Action Plan encourages ICT use in education and in skills-building programmes.

The National ICT Strategy Plan (2006) for Saint Kitts and Nevis recognizes that ICTs can be used to smooth out gender inequalities. Accordingly, it provides financing for studies, employment and creation of productive enterprises for women. It supports the empowerment of women through web resources relating to health, social benefits, prevention of abuse, childcare and geriatric care, bearing in mind that women often act as caregivers.

**Source**: Ministry for Telecommunications, Science, Technology and Innovation of Saint Vincent and the Grenadines (2010): The National ICT Strategy and Action Plan 2010-2015. Available at http://www.gov.vc/ and Government of Saint Kitts and Nevis (2006): The National ICT Strategic Plan. Available at http://www.gov.kn/.

## 2. Digital Ecuador Strategy 2.0

In 2011, 37.5% of Ecuadorian women had access to computers and 34.2% access to the Internet, in both cases slightly under the corresponding figure for their male compatriots. Furthermore, 38.8% of women admitted that they were computer illiterate (INEC, 2011).

The same survey showed that among Ecuadorians who had higher education, only 7% had qualifications in technical areas. Of all the women who work in the telecommunications and ICT sector, approximately 80% are employed in administrative areas, while in technical areas women account for just 16.2% of executive positions and 12.2% in operational positions.

These are a few data that illustrate the gender digital divide, which was the backdrop for the launch in 2011 of the Digital Ecuador Strategy 2.0. This programme, which falls under the Ministry of Telecommunications and the Information Society, contemplates four main lines for development of the information society: equipment, connectivity, training and applications and content.

The strategy is based on three plans:

- The National Plan for Universal Access and Digital Readiness
- The National Plan for Digital Government
- The National Broadband Plan

The National Broadband Plan, which is the driving force of the Strategy, incorporates explicitly the objective of gender equality (MINTEL, 2012b). In this connection, the project entitled Proactiv@s was established. It seeks to encourage ICT access and use for women, adolescent girls and young girls as a means of empowering them. The project caters for the entire female population of Ecuador but places special emphasis on the priority groups, such as adolescents and women deprived of their liberty. This initiative was launched in November 2012 within the framework of the First Regional ICT and Gender Forum, organized by the Ministry of Telecommunications and the Information Society.

The purpose of this project is to reduce gender violence by promoting skills-building for women in appropriate ICT use that will empower them and enable them to take a leadership role in the society as a whole and in the information society in particular.

According to information from the Ministry, the three strategies pursued for the equitable integration of women under Proactiv@s are:

- Access to technology and equipment. Women have access to mobile telephones, but less so to Internet or computers. Actions are planned for affording women greater access to connectivity, for example through community centres.
- ICT training and equipment: Although they have access to technology in similar proportions to men, women have a much higher illiteracy rate, which means that they are less able to use ICTs strategically. An ICT training programme is therefore proposed for the population that does not know how to read or write.
- ICT labour market: Proactiv@s also proposes opening up opportunities for women to work in managerial posts in ICT companies.

Proactiv@s is guided by the following lines of action.[5]

- Supporting women's integration into the ICT labour market.
- Advancing and supporting social organizations that deal with gender issues.
- Facilitating access on an equitable basis by all women and girls to ICT infrastructure and services.
- Working in conjunction with the public and private sectors, academia and civil society as a whole for the promotion of gender equality.
- Facilitating women's access to the media on an egalitarian and non-discriminatory basis.
- Promoting gender inclusion and equal opportunities in the field of ICTs.
- Developing gender interaction portals.
- Encouraging mass technological developments that incorporate the language of origin and aspects of cultural identity of groups of multi-ethnic women.

[5] See Camacho (2013).

As part of this project, an Infocentre was inaugurated in the Female Social Rehabilitation Centre of Quito in May 2013 following an agreement by the Ministry and the telecommunications operator. This initiative provides a place for participation and access to ICTs and the fundamental objective is to improve the quality of life of women deprived of liberty through digital inclusion, and to stimulate the use of ICTs as tools for interactive learning and teletraining.

## 3. Digital Agenda of Mexico

Recent surveys show that the difference in computer and Internet use in Mexico is minimal with 51% for men and 49% for women.[6] This parity is not however matched by greater empowerment for women in areas such as education, science, technology or employment. Women represent more than half of the population in Mexico; however they do not account for the same percentage of the student body, of decision-makers or of the economically active population (EAP).

Moreover, the growing presence of women in higher education contrasts with their limited participation in science and technology, which are key areas for the development of a knowledge society. In terms of percentages, the areas of study chosen by women tend to be education and the humanities, health sciences, social sciences and administration. Women account for just 31% of the total number of students enrolled in the fields of engineering and technology.

The Government of Mexico has therefore adopted a series of initiatives for promoting gender equity in ICTs. The Agenda Digita.mx, which was launched in 2012, defines six core objectives which are the basis for different lines of action and strategies:

- Internet for all
- ICTs for equity and social inclusion
- ICTs for education
- ICTs for health
- ICTs for competitiveness
- Digital government

The central premise of the Agenda is that broadband and ICTs can leverage social equity, and that universal access to broadband connectivity is therefore a national priority for Mexico and is considered to be public utility.

The chapter on ICTs for equity and social inclusion of the agenda affirms that ICTs have proved to be a powerful tool for promoting gender equity. It states, further, that technology, in particular ICTs, can be used to promote gender equity and reduce gender violence (Secretariat for Communications and Transport of Mexico, 2012).

In line with these initial considerations, the section "Objectives, lines of action and strategies" in the document includes a specific paragraph on "Promoting equitable digital inclusion for women" with proposals for specific lines of work:

- Generate greater opportunities for appropriation of ICTs: generate educational content and online learning projects geared to young and adolescent girls.
- Train women workers to generate digital skills: train women workers in the use of devices, software and the Internet in order to reduce the ICT gender gap.
- Strengthen anti-violence projects and programmes through use of ICTs: promote the digital presence of programmes and projects that prevent and combat violence against women.

Mexico's Digital Agenda also mentions a series of strategic actions that are being implemented by the National Women's Institute (INMUJERES) in order to promote gender equity and reduce violence against women. These include the following:

- Women entrepreneurs and businesswomen: this is a virtual meeting room set up by INMUJERES for all women wishing to engage in commercial activities. The programme promotes networking, which enables them to access information on support programmes, events, news and new tools for business development.

[6] This information is based on the April 2012 National Survey on Availability and Use of Information Technology in Households, conducted by the National Institute of Statistics and Geography (INEGI), and on the survey of Habits of Internet Users in Mexico, conducted by the Mexican Internet Association (AMIPCI).

- Microsite "A life free from violence": this is a portal (vidasinviolencia.inmujeres.gob.mx) which provides citizens with information geared to protecting and disseminating women's human rights as enshrined in the Constitution and in the international treaties ratified by the State. It also seeks to promote a culture of non-violence, non-discrimination and gender equality.

The above-mentioned initiatives suggest that there is close coordination between the Agenda Digital and the activities conducted by INMUJERES. In each country, coordination between the work of the digital agendas and the machineries for the advancement of women is vital and must be taken into account. This can help to reinforce the gender perspective in digital agendas and to introduce digital-inclusion and ICT-empowerment initiatives within the broader gender agenda.

With respect to INMUJERES, another issue needs to be emphasized. The new Government of Mexico decided that the gender perspective should be mainstreamed as a cross-cutting approach throughout the National Development Plan 2013-2018, which governs all public policy. The National Programme for Equality between Women and Men (PROIGUALDAD) will therefore cease to be a special programme and will become a cross-cutting programme. In other words, all sectoral programmes, including the Agenda Digital, must be coordinated with PROIGUALDAD of INMUJERES.

Accordingly, INMUJERES is currently planning, for the coming years, the following actions relating to Agenda Digital:

- Gender mainstreaming as a guiding principle for the policies for innovation and introduction of new technologies.
- Broadening knowledge of women's participation in science and technology and reducing the digital divide in order to achieve equality.
- Assuming leadership in order to involve women in actions and programmes that facilitate their participation in technological spheres, in the acquisition of technological skills and in harnessing ICTs for their economic, political and social empowerment.
- Designing actions whereby Internet can become a tool for the expansion of women's projects.

In addition to the initiatives described above, INMUJERES runs a technological literacy workshop, entitled "Introduction to information and communication technologies (ICTs)". Forty workshops were held between 2008 and 2012 and were attended by almost 2,000 rural women. Twelve workshops are planned for 2013 and will be conducted in coordination with the Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food.

Another important public initiative is being implemented by the Secretariat of Communications and Transport of Mexico through the Coordinating Unit of the Information and Knowledge Society. This agency coordinates the Migrant Women Programme, which is designed to promote access to ICTs for women migrants and their families so that, notwithstanding geographical, educational, economic and cultural factors, they can, by adopting these technologies, avoid becoming isolated. The programme now benefits from the support and collaboration of more than 30 public bodies and social organizations.

The main actions of this programme are:

- Portal: The Portal www.mujermigrante.mx contains useful information for the migrant population. It presents close to 810 contents, including videos, comic strips, courses and tutorials with relevant information for migrant women and their families. The portal has an online chat service as well as a telephone hotline. It receives on average 6,000 visits per month from persons in countries including Colombia, Spain and the United States.
- Applications: Four mobile applications are available through the website and may be downloaded free of charge for i-Phone and android operating systems: *Chat mujer migrante, !Ayuda!, Manos amigas and Guía legal pro mujeres*. These applications cater for women and provide prompt and timely information on their rights.
- Training: Thirty-one face-to-face training workshops were conducted and an online course "*Mujeres que migran*" is currently being run for persons interested in migration issues (mujermigrante.mx/cursoenlinea/).
- Dissemination: of contents and services offered by the portal through advertising spots with a gender perspective, which were transmitted through community and university radios throughout the country.

## 4. Digital Strategy Dominican Republic: e-Dominicana

As part of the Gender and ICTs project, the Research Centre for Feminist Action (CIPAF) of the Dominican Republic released in 2011 the results of the study entitled *¿Otro techo de cristal? La brecha digital de g*énero en la República Dominicana (CIPAF, 2011a). Support for this study had been received from the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women). Some of its main conclusions were as follows:

- The gender divide persists in terms of computer use and, above all, access to Internet.
- Women accounted for 64% of the university student body in 2009 but for less than 50% in basic sciences and ICTs.
- In ICT careers, the proportion of women was 43%, but the percentage of males was high in all careers except computer engineering.
- Although women account for 51% of total employment in the ICT industry, there is a high level of sexual segregation in the labour market, which manifests itself in an underrepresentation of women in the highest-level, decision-making posts. Women are also underrepresented in professional science and engineering posts, especially in occupations linked to ICTs or posts of software and multimedia developers and analysts.

In 2004, the Dominican Republic formulated its first National Strategy for Information and Communication Technologies for Development, referred to as e-Dominicana, under the coordination of the Dominican Telecommunications Institute (INDOTEL). In 2005, a second version was launched entitled "e-Dominicana: Navegando hacia el futuro" (e-Dominicana: Surfing towards the future) (CIPAF, 2011b).

The National Commission for the Information and Knowledge Society (CNSIC) is the coordinating body for that Strategy and is chaired by INDOTEL and made up of stakeholders from the Government, the private sector and civil society.

In accordance with CIPAF (2011b), the first version of e-Dominicana included gender equity as one of its priority areas and defined specific objectives and projects for skills-building, bridging the digital divide, developing ICT applications and creating content. The second version 2005-2010, on the other hand, defined more general priority objectives.

Currently, the National Strategy for the Information Society of the Dominican Republic (e-Dominicana 2011-2015) rests on five basic pillars:

- Promote digital training for citizens.
- Promote electronic government.
- Increase the penetration of information and communication technologies in rural and marginal urban areas.
- Build the business sector and national competitiveness.
- Promote linkages, integration and coordination between stakeholders and sectors of Dominican society.

Against this background a significant initiative of the Research Centre for Feminist Action has been developed as part of the gender and ICT project. In the initial phase (2010-2011), the above-mentioned study, *¿Otro techo de Cristal? La Brecha digital de Género en la República Dominicana*, was conducted. It presented an analysis of gender inequality with regard to ICTs in the country and an overview of the gender perspective for the set of policies and initiatives in the information society. On this basis and following a broad process of consultations with public stakeholders and civil society, a proposal was formulated for integrating a series of demands and gender projects in the National Strategy for the information society: the Plan for Equal Opportunities for Women in the Information Society (PIOM-SI).

This Plan was presented to the public in 2012 and owing to the rigorous diagnosis and the detailed proposals put forward for bridging the gender-related digital divide at the different levels at which it manifests itself, it is an outstanding reference for efforts to integrate the gender perspective in digital policies in the region.[7]

One of the main objectives of the National Plan for Gender Equality and Equity (PLANEG) of the Ministry for Women's Affairs is to promote the full participation of women in the information and knowledge society, which it views as a priority strategy for their empowerment and advancement. PLANEG has drawn on PIOM-SI and contains objectives, areas of intervention and lines of action and a series of initiatives geared to mainstreaming gender equality into public ICT policies.

[7] Included under this Plan is a demonstration project described in chapter V: the mathematics club "e-chicas" and Super-máticas", which are aimed at maintaining interest in science subjects among young and adolescent girls in State-run schools in Dominican Republic.

Another important point of intersection between the Research Centre's initiative, the Ministry for Women's Affairs and the Digital Strategy of the Dominican Republic was the Gender and ICT Working Group, which was set up in 2011 within the framework of the National Commission for Information Society and Knowledge (CNSIC) (which coordinates e-Dominicana) in which the Dominican Telecommunications Institute and various other ministries also participated. Thus, efforts were made to ensure that equality and gender equity were present in national public policy design on ICTs and to convert them into a cross-cutting element of the new e-Dominicana, through specific policies, programmes and projects that make it possible to overcome the current gender-based digital divide in the country.

## C. Towards more integrated, gender-sensitive digital agendas

The foregoing sections have presented the digital policies being implemented progressively in the countries of the region and underscored the substantial impact they have had on development and on the digital inclusion of women as well as men. However, despite the persistent gender gaps and the positive impact that digital strategies could have on women's participation in the design and construction of the information and knowledge society, in most cases, no specific measures have been adopted to mainstream the gender dimension in these policies.

In this context, some national experiences such as those of Dominican Republic, Ecuador and Mexico attest to significant progress insofar as gender issues are being properly mainstreamed into digital strategies. The actions of these countries are in line with the consensuses reached under the Plan of Action for the Information Society in Latin America and the Caribbean (eLAC), and the Plan of Work 2013-2015 for the implementation of the Plan of Action on the Information and Knowledge Society for Latin America and the Caribbean (eLAC 2015). Under the section Relevant and emerging issues, this Plan proposes: "taking steps to mainstream the gender perspective across all policies designed to close the digital divide and promote the generation of statistics and information on the gender gap and the differentiated impacts of ICTs".

One of the main lessons learned from the most advanced experiences within the region, as highlighted in this chapter, is that gender equality policies must be brought into line with the digital strategies at the local and national levels. In other words, policies for equality in the information society must be promoted and articulated (by the governing bodies responsible for equality policies) and the same must be done with digital policies in relation to gender equality (by the agencies responsible for digital agendas). The aim must be to guarantee gender equality in the information society and, at the same time, to use ICTs as tools towards this end.

International best practices illustrate the importance of this coordination and, more generally, underscore the relevance today of mainstreaming the gender approach in digital agendas.

In recent years, Spain has made a qualitative leap in pushing forward ICT and gender policies. In an experience marked by three important milestones: first, the entry into force in 2007 of the Organic Act for Effective Equality between Men and Women, which recognizes the need to implement the principle of equal opportunities in the sphere of the information society and urges government authorities to promote the full incorporation of women in this field.[8] Second, the Ministry of Health, Social Services and Equality put in place the Action Plan for Equality between Women and Men in the Information Society (2009-2011). Based on a comprehensive approach and the formulation of measures to respond to the gender gaps identified (access, intensity, use), this Plan seeks to act as a guide for public agents involved in sectoral policies, defining the responsibilities of each of the State entities involved. Third, the Plan Avanza, the digital agenda implemented by the Ministry of Industry, Energy and Tourism, incorporated specific gender equality initiatives, mainly in its initial version and in the digital citizenship component (Ministry of Industry, Energy and Trade of Spain, 2005).

[8] Article 28 of the Information Society Act states that:
(i) The design and implementation of all public programmes for development of the information society will include the principle of effective equal opportunities for women and men.
(ii) The government will further women's full mainstreaming in the information society with specific programmes, particularly regarding access to and training in information and communication technologies, taking account of the needs of women members of communities at risk of exclusion and women living in rural settings.
(iii) The government will further information society content created by women.
(iv) Provision will be made to ensure the absence of any sexist language or content in information and communication technologies projects wholly or partially financed with public funds.

Another example is the Digital Agenda for Europe, in which reference is made to the digital policies of each member country of the European Union, which incorporates as one of its lines of action the decision to increase the participation of women in the ICT workforce by fostering teletraining and e-learning based on games and social networks. In addition, the Digital Agenda for Europe seeks to attract more women to ICT careers. This concern arises from the fact that European women account for less than one-third of those employed in the ICT sector and for the most part hold less responsible positions than men, at a time when there is a dearth of skilled workers in the ICT industry.

The growing realization that the process of ICT dissemination, use and appropriation is not automatic or universal and that active integration of the different social segments in the digital paradigm is both a need for inclusive development and a challenge which requires specific and complex strategies, has enabled policymakers in the region to advance towards increasingly integrated digital strategies.

The agendas formulated in recent years have tended to encompass more diverse issues than the earlier initiatives, which focused almost exclusively on access, infrastructure, online government services and the introduction of ICT in education. Capacity-building in ICT use, production and digital innovation emerges as a major challenge for our societies and one that is necessary in order to give the impetus needed for the digital economy in the region. Public ICT agendas are faced with new issues such as open data, environment, cloud computing, social networks and the use of big data as a support for policy decisions.

With the growing sophistication of these digital strategies, gender issues should gain currency. It is very clear today —and countries that have reached a higher level of digital development recognize it— that there is a gender gap and specific policies must be designed and put into practice in order to overcome it.

Such policies cannot be limited to specific areas, such as access or digital inclusion. The gender perspective must be mainstreamed throughout digital strategies in order to address the different gaps that have been identified (literacy, use, training, appropriation, science and innovation, ICT in self-employment, among other spheres of the digital economy) and all the areas in which girls, adolescent girls and women face specific problems, disadvantages or discrimination: health, education, business, citizen security and cybersecurity, protection of personal data and so forth.

## D. Concluding remarks

Naturally, the development of gender proposals within digital agendas, such as inclusion of an ICT agenda in policies for equality, is not a task for a single State actor but must be part of a convergence of efforts, resources and sensitivities from the various public stakeholders involved in issues such as innovation, ICTs, equality, education, health and employment. Moreover, the process must be open to the contributions of civil society, academia and the private sector.

The ultimate objective is to help to bridge the gap between men and women in the construction of and participation in the information and knowledge society; to this end, the gender perspective must be effectively mainstreamed into digital strategies both in terms of their overall and sectoral objectives and in relation to the different lines of action and the indicators necessary for monitoring them.

# Conclusions

Development strategies based on structural change, that is, on diversification of production with greater incorporation of knowledge and innovation, should enable the countries of the region to achieve sustainable economic growth and a more inclusive form of development, expanding opportunities for equality between individuals. A number of studies have demonstrated that new technologies, in particular ICTs are an important vector for transforming social, economic and political life around the world. They open up new economic and employment opportunities, and many countries in the region are well-positioned to leverage the advantages they offer to accelerate their development processes based on structural change.

The impact of ICT use on gender equality is mixed. While there have been advances in this direction, long-standing inequalities persist and new ones are emerging that reveal advances and setbacks, impediments and resistance to change. This document places the focus on the relationship between the information society, the economic autonomy of women and gender equality, showing that:

(i) ICTs can have a positive impact on growth and productivity in women-run businesses, opening up possibilities for new ways of negotiating and marketing their products, enabling them to participate more actively in the market economy, to be more competitive and to use the digital economy to achieve their rights and personal well-being.

(ii) In the digital economy as in other development paradigms, opportunities are not distributed equitably between countries or between individuals. The asymmetries thus developed must be tackled with specific policies. The gender order whereby women remain overwhelmingly responsible for unpaid work and caregiving in the home intersects with the new ways of organizing the global economy. The depth of the digital divide that affects women may increase even though the population excluded from the information society is decreasing. This is largely due to the slowness in closing the gender gaps, especially as regards ICT-related employment.

(iii) Women still have to contend with multiple forms of discrimination, and still account for a high proportion of persons living in poor households. The poverty femininity index for persons between the ages of 20 and 59 shows that in all the countries of the region, more women than men in this age group live in poor households and that while female participation in the labour market has increased, it has not changed since the first few years of the twenty-first century and half of Latin American and Caribbean women still remain outside the labour market.

(iv) While as many as 30.4% of women living in urban areas in the region have no income of their own, the figure for rural women in the same position is 41.4%, a difference of 11 percentage points. In terms of integration into the labour market, the activity rate of women living in rural areas is over 40%, which points to the significant presence of women in the labour market, although the activity rate for men in rural areas is more than double at 83.7%.

(v) Women do not have the same working opportunities or the same career path or wages as men even if their level of training and their academic qualifications are the same. In terms of job quality, women in ICT-related economic sectors are subject to a strong gender-based occupational segregation and their work is undervalued. The adoption of new technologies has not significantly altered the structure of gender-based occupational segregation. It has created new divisions within some occupations. Although women are outpacing men in the

area of education, patterns of horizontal and vertical segregation are being reproduced which concentrates women in given occupations, generally identified as "women's jobs", placing them in lower-paid positions that require less technological skill.

(vi) Small and above all micro enterprises have become an option par excellence for women —although often the stakeholders that provide facilities for their establishment and loans for businesses of this kind do not recognize women as their main target group. Since, in many cases, the workplace is in the home, this has an impact on women's productivity and reproduces the sexual division of labour relating to care and the burden of domestic work. Women's strong participation in MSMEs is a manifestation of inequality and poses a challenge for structural change based on new technologies. The opportunities that MSMEs provide cannot be fully leveraged unless policies on access to credit, distribution of assets and business training are distributed more equitably and are adapted to meet the needs of women.

(vii) Analytical studies point to the fact that girls and young women have less chance than men of receiving the education and information necessary for attaining a career in science and technology, and that those women who do work in this field, which is dominated by masculine roles, images and stereotypes, have fewer chances of being promoted, since they tend to be concentrated in the lower ranks of national science and technology systems. This is due to asymmetrical power relationships between men and women, historically entrenched in hegemonic gender systems which are reproduced in the family, schools and the labour market.

(viii) Development policies in general and production policies in particular cannot be neutral. Just as they must take into account inequalities between countries and between economies, so they must also consider and do away with the gender inequalities observed in the way they are integrated into the society, the labour market and the family. Clearly, there are numerous initiatives geared to ICT dissemination and use in a broad range of areas which contribute in a positive manner to the advancement of women and of gender equality in the region. It is not simply a matter of public policies but also of projects implemented by associations, universities and businesses. But at the same time, it points to the need to strengthen those efforts with a more strategic and pedagogic approach and with further investment and innovation and with a commitment to the achievement of genuine gender equality within the framework of the information and knowledge society. Such policies cannot be limited to specific areas, such as access or digital inclusion. The gender perspective must be mainstreamed throughout digital strategies in order to narrow the different gaps that have been identified (in literacy, use, training, appropriation, science and innovation, ICT in self-employment and other spheres of the digital economy) and all those areas in which girls, adolescent girls and women face specific problems, disadvantages or discrimination.

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# Annex 1
# The future agenda: comprehensive development and gender mainstreaming in policies for the digital economy

Understanding the process underpinning and perpetuating the gender digital divide is crucial to designing effective policies to address women's disadvantageous position in the information and knowledge society.

The steps taken in pursuit of the information society and gender equality can be mutually reinforcing as both involve profound changes in the conceptualization and organization of work. They foster and, indeed, require a systemic view of the creative process and highlight the porosity of the boundaries between the public and private spheres. Boosting and improving women's participation in the information society through public policy will lead to a wide range of benefits, helping to increase creativity, skills and competitiveness in the technology sectors and in society as a whole. Furthermore, the critical mass of information and communication technology (ICT) professionals required for the development of the digital economy at the national and regional levels will also grow and evolve.

In this context, it is difficult to understand the failure of public policy to promote women's integration into the digital economy, the lack of information on the situation of women in the economy (see annex 2), the weak gender perspective in digital agendas and the persistence of assumptions and stereotypes that propagate job segregation, wage discrimination and overburdening in terms of total work time.

In recent years, according to feminist theory as a theory of equality, it has been found that the various forms of exclusion that exist in society do not act independently of one other; on the contrary, their interrelationship creates a system of domination that reflects the intersection of multiple forms of discrimination. Therefore, in order to produce real change, the gender perspective must be mainstreamed in all public policies in the context of the digital economy.

Persistent inequalities in the knowledge society evidence once more the need for a critical analysis of development. Gender mainstreaming in development strategies does not mean merely including women in each topic at hand or in a specific section of development plans, or describing how these inequalities affect women's lives. Rather, it must go beyond this limited and splintered approach and demonstrate how unequal gender relations are power relations that shape all economic, political and cultural processes. Taking that step towards an analysis that respects the complexity of development could minimize the possible failure of some public policies (which can happen despite the good intentions behind them). It is on this basis that the Regional Conference on Women in Latin America and the Caribbean has conducted its work, as reflected in the consensuses of Brazilia, Quito, Mexico City and Lima, among others.

Starting from a development concept determined by dominant stakeholders and interests and economic growth and distribution reduced to trickle-down theory, progress has been made towards new and more complex concepts that acknowledge the failure of traditional approaches to achieve greater equality. ECLAC has given prominence to the

concept of equality and ownership of rights on its agenda; in *Time for equality: closing gaps, opening trails*, equality is put forward as both an ethical principle and the ultimate development objective.

The narrow concept of development is tied to expanding the production of goods for the market and does not take sufficient account of the production of services, production that is not market-driven (in households or non-profit institutions), or the toll taken on people's, and particularly women's, well-being, the environment and the economy by the destruction of non-renewable resources and environmental pollution.

Gender analysis helps to explain the many complex interconnections operating in development processes. To this end, certain basic concepts have had to be redefined, including work, production, reproduction, wealth, distribution, growth and indeed development itself. Given the complexity and diversity of the challenges posed by these redefinitions, further efforts are needed in order to:

- Raise the profile of women and gender relations in public policy, especially in connection with economic policy and the digital agenda, since this is where real development models are currently built and promoted.
- Increase recognition of the citizenship-building potential of the world of work, acknowledging the economic and social contribution of unpaid work and its links to paid work, and promoting a new, more equitable distribution of income, resources, time and power.
- Enhance the cross-sectoral and territorial focus of policies to help overcome the various forms of discrimination that women face, on the understanding that it is essential to have policies that are sensitive to inequalities in rural areas and ethnic and racial inequalities.

In these three areas, ICT, both in terms of access and equitable use, has a strategic value as it can accelerate the process of structural change and strengthen virtuous circles between integration and innovation.

As developing countries set out to draft proposals for the development of digital inclusion policies with a gender perspective, it is vital to know how the different gaps identified affect each country, in terms of literacy, use, training, appropriation, science and innovation and self-employment, among other facets of the digital economy, taking into account all of the areas where girls, adolescents and women face challenges, disadvantages or discrimination.

Discrimination mechanisms are reproduced in the use of ICT and manifest themselves in a digital gender gap. This significantly reduces the potential benefits for women of ICT use as a key tool for improving their labour-market integration and accessing education and health care, not to mention the benefits of ICT in terms of new management and communication techniques through online connections and social networks.

This then raises some key issues and questions that should be investigated in order to provide new inputs for policymaking on equality:

- Female workers in small and medium-sized enterprises (SMEs) and women entrepreneurs:
  - Analyse and propose specific policies in the region (national and local) to promote productive enterprises led by women considering essential aspects such as access to credit, ICT training, business incubation and promotion.
  - Incorporate ICTs in enterprises run by women in traditional sectors as education, health, tourism and personal services.
- Women in ICT companies:
  - Survey the typical working conditions in ICT companies (flexible hours, telework opportunities, as well as the unconditional dedication required) and training practices that foster or hinder gender equality.
  - Investigate and propose strategies to overcome occupational segregation, with a particular emphasis on the concept of the glass ceiling.
- Women in ICT-related professions:
  - Research gender stereotypes in education that discourage girls and young women from pursuing careers in non-feminized professions, such as those in the fields of science and technology.
  - Develop policies and programmes to encourage girls to take a greater interest in the exact sciences and adolescents to pursue training in the area of ICT.
  - Survey experiences of non-sexist software and digital content production.
- The gender perspective in digital policies:
  - Analyse experiences of gender mainstreaming in science and technology policies and agendas under the leadership of the national machinery for the advancement of women.

- Investigate the key features of the second digital divide, which has a particularly marked impact on women.
- Research good practices in mainstreaming gender in digital agendas and strategies (national and local) and map the institutional formats that are most conducive to the implementation of these policies at government level. Identify to what extent policies on equality and digital strategies should dovetail.

• The economic autonomy of rural , indigenous, Afro-descendent and migrant women

- Further study the scope and limitations of the factors contributing to the first and second digital divides.
- Expand the production of statistical information and analysis on the living conditions and the economic empowerment of these population groups.

All of this requires sustained and cross-cutting efforts to improve the collection, processing, analysis and dissemination of data disaggregated by sex.

# Annex 2
# Women's autonomy: what the figures say

The statistical annex was prepared on the basis of quantitative information available from ECLAC, international organizations (International Labour Organization (ILO) and United Nations Educational, Scientific and Cultural Organization (UNESCO)) and national statistics institutes or offices in the countries of Latin America and the Caribbean. The indicators were calculated using official statistics, either directly by government entities or through a process of comparison and standardization by ECLAC.

The latest available data were used; however, they do not necessarily correspond to the current period because of the time lag between the collection of information and the preparation of databases for the processing and analysis phases. Regional comparability of data is an essential criterion for this type of document. Even though some countries may have had more recent data, if they did not meet the conditions of equivalency and comparability, previous data that did meet those conditions were used instead. Data series were used for some indicators, where it was important to illustrate the scale of certain situations and their development over time. Most of the indicators presented in this annex are available on the website of the Gender Equality Observatory for Latin America and the Caribbean[1] and CEPALSTAT (the ECLAC online statistics portal).

The Gender Equality Observatory for Latin America and the Caribbean uses the concept of women's autonomy as the basis for assessing progress, obstacles and resistance with respect to gender equality in the region (ECLAC, 2013c).

The indicators available on the CEPALSTAT website help to elucidate the many factors that influence women's physical autonomy, autonomy in decision-making and economic autonomy.

It was not possible in all cases to reflect specific circumstances in each country in the region or to capture the diverse range of situations that affect certain population groups (rural, indigenous, Afro-descendent and migrant women) using disaggregated data, either because sample sizes were too small or because there was no systematic, regular and reliable collection of information on certain topics or for certain population groups. Progress in recent years has led to more and better data, but more must be done as the statistical output gap persists in relation to the disaggregation by sex of significant variables. Depending on the country, up-to-date information that can be disaggregated is not always available.

Generating, analysing and disseminating official statistics disaggregated by sex, with geographic coverage for both urban and rural areas, presents a huge challenge. Other challenges include the incorporation of new topics and

[1] The Gender Equality Observatory for Latin America and the Caribbean is the result of an inter-agency effort by the United Nations Population Fund (UNFPA), the Pan American Health Organization (PAHO), the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women), the Ibero-American Secretariat (SEGIB), the Spanish Agency for International Development Cooperation (AECID) and the Ministry of Foreign Affairs and Cooperation of Spain, through the Directorate General for the Planning and Evaluation of Development Policy (DGPOLDE).

the use of basic economic statistics and administrative records. This requires better coordination and prioritization within national statistical systems in the region, especially with regard to calculating basic intercensal statistics on economic, social and demographic topics, among others.

In order to make good decisions that help facilitate progress towards an inclusive, democratic, and egalitarian society in which there is no discrimination between women and men, it is necessary to invest in the production of robust, good-quality statistics that offer ample opportunity for disaggregation by sex.

The regular and systematic measurement of new phenomena or those which have received little attention and that tend to be evaluated using non-traditional criteria reveals vast gaps between women and men. For example, the measurement of unpaid work shows, despite the scarcity of data and the different methodologies employed, dramatic differences between women and men in the composition of total workload.

The data in this annex are from households, firms, surveys, censuses and administrative records. It is organized into six sections, whose focus ranges from a global perspective to specific cases. These up-to-date data complement the analysis in the rest of the document and include both traditional data and new information. The sections of the annex are as follows:

1. The labour-market situation from the perspective of people and companies (tables A.1 to A.11)
2. Education, research and development (tables A.12 to A.14)
3. Poverty and gender (tables A.15 to A.19)
4. Internet access and use (tables A.20 to A.27)
5. Rural and indigenous women (tables A.28 to A.33)
6. Women in the financial system in Chile (tables A.34 to A.42)

Below is a brief overview of the sources used to prepare the indicators presented in the document and in the statistical annex.

### Household surveys

The indicators on employment, poverty and income, and the situation of households and families are calculated using data from countries' household surveys contained in ECLAC databases; those data were processed by applying algorithms to ensure comparability. The low coverage of such surveys in the Caribbean countries is reflected in the limited information available compared with other countries in the region. In other cases, existing information was not available for processing.

### Time-use surveys

It is important to note that time-use surveys vary significantly between countries. Some countries have opted for separate surveys, others have included time-use modules in household or employment surveys and others have simply incorporated a set of questions on time use in regular surveys. One of the main problems is that not all countries use standardized definitions and calculations, that is, the figures are not calculated using the same parameters of comparability. Nevertheless, despite the discrepancies in methodology, in all cases a similar pattern is found in terms of the differences in time distribution and in the level of participation in paid and unpaid work between women and men.

### Censuses

Economic and Agriculturel censuses were used for the indicators on economic participation and employment by sex. The Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC provided support with respect to the analysis of the situation of indigenous women and the last round of population censuses was used, which allowed for breakdowns by ethnicity.

### Other sources of information

This statistical annex takes a fresh approach to gender statistics. Non-traditional information sources were processed to produce gender statistics: information was obtained from countries' economic statistics to place women in the region's production structures. Economic statistics have at least two levels of aggregation, basic and summary, and are usually calculated by countries' national statistics institutes or statistical offices and central banks.

The first level (basic statistics) includes indicators such as inflation and changes in economic activity and production, as well as data from structural surveys (industry, trade and services, for example), censuses (economic and Agriculturel, among others) and statistics from administrative records (taxpayer, bank and credit records). The second level (summary statistics) includes national accounts, the balance of payments, and monetary and financial statistics. These two levels are connected and, in fact, basic economic statistics must be consistent with the requirements of, for example, national accounts; however, they also have particular features that enable public policymakers and researchers to develop their own analyses of the specific phenomena under consideration. In this sense, the two levels are complementary and interdependent.

Basic economic statistics provide information on significant structural variables, such as employment, wages and firm size, so that intertemporal analyses can be conducted to identify gaps and women's position in the economy. The indicators available contribute to the discussion, design and evaluation of both cross-cutting and sectoral public policies to foster greater autonomy for Latin American and Caribbean women.

Basic economic statistics are also a complement to long-term labour market analyses. In this connection, records, based on different instruments, make it possible to gather more precise data on employment, economic activity, firm size, wage gaps, production structure and participation in decision-making, among other areas.

# 1. The labour-market situation from the perspective of people and companies

**Table A.1**

**Latin America (18 countries): rate of economic activity,[a] national total by sex, census rounds of 1990, 2002 and 2010**

*(Percentages)*

| Country | Women | | | Men | | |
|---|---|---|---|---|---|---|
| | Census rounds | | | Census rounds | | |
| | 1990 | 2002[b] | 2010[c] | 1990 | 2002[b] | 2010[c] |
| Argentina[d] | 38.0 | 45.4 | 48.0 | 75.7 | 72.2 | 73.9 |
| Bolivia (Plurinational State of)[e] | 45.1 | 61.0 | 62.5 | 73.5 | 83.3 | 81.2 |
| Brazil | 43.4 | 55.4 | 57.8 | 84.3 | 81.1 | 80.2 |
| Chile | 31.5 | 39.0 | 42.1 | 73.6 | 73.3 | 70.7 |
| Colombia[f] | 42.4 | 53.0 | 55.7 | 84.8 | 82.1 | 81.3 |
| Costa Rica | 32.4 | 41.0 | 43.3 | 82.5 | 79.3 | 75.9 |
| Dominican Republic | ... | 39.3 | 41.3 | ... | 74.9 | 72.3 |
| Ecuador[g] | 42.1 | 52.8 | 47.9 | 80.0 | 80.6 | 77.9 |
| El Salvador | ... | 44.2 | 46.0 | ... | 79.1 | 78.7 |
| Guatemala[h] | 27.5 | 47.6 | 47.2 | 89.9 | 91.4 | 88.3 |
| Honduras | 30.9 | 36.9 | 43.3 | 87.2 | 85.0 | 82.5 |
| Mexico | 29.9 | 43.2 | 43.6 | 80.9 | 82.3 | 80.7 |
| Nicaragua | ... | 46.3 | 43.6 | ... | 86.3 | 82.8 |
| Panama | 45.9 | 44.3 | 47.2 | 71.5 | 80.1 | 80.4 |
| Paraguay[i] | 46.1 | 52.4 | 52.8 | 84.2 | 85.3 | 83.3 |
| Peru[j] | ... | 58.0 | 66.7 | ... | 79.2 | 83.5 |
| Uruguay[g] | 43.3 | 50.1 | 55.2 | 74.7 | 72.1 | 74.5 |
| Venezuela (Bolivarian Republic of)[k] | 34.3 | 54.4 | 49.8 | 79.4 | 83.4 | 78.4 |
| **Latin America[l]** | **38.1** | **48.0** | **49.8** | **80.2** | **80.6** | **78.7** |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Population aged 15 years and over.
[b] Refers to household surveys conducted by the countries in 2002, with the exception of Chile, which conducted its survey in 2000, and El Salvador, Nicaragua, Paraguay and Peru, which conducted theirs in 2001.
[c] Refers to household surveys conducted by the countries in 2010, with the exception of Brazil and Chile, which conducted their surveys in 2009.
[d] Refers to urban areas: the metropolitan area for 1990, 32 urban agglomerations for 2002, and 31 urban agglomerations for 2010.
[e] Data for 1990 refer to urban areas of Cochabamba, El Alto, La Paz, Oruro, Potosí, Santa Cruz, Sucre, Tarija and Trinidad.
[f] From 2002 on, the figures for urban and rural areas are not strictly comparable with those for earlier years, owing to changes in the survey sample design.
[g] The information for the 1990 and 2002 rounds refers to urban areas.
[h] The latest information available is from the 2008 census round, conducted in 2006.
[i] Data for 1990 refer to the metropolitan area of Asunción.
[j] From 2004 on, the figures are not strictly comparable with those for earlier years, owing to methodological changes.
[k] From 1998 on, the survey sample design does not allow urban-rural breakdown. The figures therefore refer to the national total.
[l] Simple average. Includes only the data available for each round; does not include Guatemala for the 2010 census round.

**Table A.2**
**Latin America (18 countries): rate of economic activity [a] by sex and geographical areas, 2010 census round**
*(Percentages)*

| Country | Women | | | Men | | |
|---|---|---|---|---|---|---|
| | National | Urban | Rural | National | Urban | Rural |
| Argentina [b] | ... | 48.0 | ... | ... | 73.9 | ... |
| Bolivia (Plurinational State of) | 62.5 | 58.0 | 72.3 | 81.2 | 77.1 | 90.1 |
| Brazil | 57.8 | 57.7 | 58.5 | 80.2 | 79.1 | 86.0 |
| Chile | 42.1 | 43.9 | 29.1 | 70.7 | 71.1 | 68.6 |
| Colombia | 55.7 | 58.9 | 42.9 | 81.3 | 79.5 | 86.9 |
| Costa Rica | 43.3 | 47.8 | 34.9 | 75.9 | 75.1 | 77.2 |
| Dominican Republic | 41.3 | 45.3 | 32.3 | 72.3 | 70.6 | 75.4 |
| Ecuador | 47.9 | 49.3 | 45.0 | 77.9 | 75.7 | 82.3 |
| El Salvador | 46.0 | 52.2 | 33.6 | 78.7 | 75.5 | 84.3 |
| Guatemala [c] | 47.2 | 54.3 | 39.2 | 88.3 | 84.6 | 92.3 |
| Honduras | 43.3 | 50.3 | 36.0 | 82.5 | 75.0 | 88.9 |
| Mexico | 43.6 | 47.3 | 36.7 | 80.7 | 79.1 | 83.4 |
| Nicaragua | 43.6 | 50.8 | 31.9 | 82.8 | 77.4 | 90.1 |
| Panama | 47.2 | 50.6 | 39.6 | 80.4 | 78.3 | 84.3 |
| Paraguay | 52.8 | 55.3 | 48.6 | 83.3 | 80.6 | 87.2 |
| Peru | 66.7 | 62.9 | 75.2 | 83.5 | 80.7 | 89.2 |
| Uruguay | 55.2 | 55.4 | 50.3 | 74.5 | 74.2 | 82.0 |
| Venezuela (Bolivarian Republic of) [d] | 49.8 | ... | ... | 78.4 | ... | ... |
| **Latin America [e]** | **49.9** | **52.1** | **44.5** | **79.0** | **76.4** | **83.7** |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Population aged 15 years and over. Refers to surveys conducted by the countries in 2010, with the exception of Brazil and Chile, which conducted their surveys in 2009.
[b] Includes 31 urban agglomerations.
[c] The latest information available is from the 2008 census round, conducted in 2006.
[d] From 1998 on, the survey sample design does not allow urban-rural breakdown.
[e] Simple average. Does not include Guatemala for the 2010 census round.

## Table A.3

**Latin America (17 countries): employed population by sex and occupational category, two latest years available**

*(Percentages)*

| Country | Years | Women | | | | | Men | | | | | Total | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Wage-earners | Non wage-earners | Domestic workers | Unpaid family workers | Others | Wage-earners | Non wage-earners | Domestic workers | Unpaid family workers | Others | Wage-earners | Non wage-earners | Domestic workers | Unpaid family workers | Others |
| Argentina [a] | 2010 | 62.7 | 17.5 | 16.4 | 1.2 | 2.1 | 69.3 | 25.3 | 0.2 | 0.4 | 4.8 | 66.6 | 22.1 | 6.9 | 0.7 | 3.7 |
| | 2011 | 62.2 | 16.7 | 17.1 | 1.2 | 2.8 | 68.7 | 25.5 | 0.3 | 0.3 | 5.2 | 66.0 | 21.9 | 7.2 | 0.6 | 4.2 |
| Bolivia (Plurinational State of) | 2008 | 38.5 | 40.3 | 6.8 | 14.3 | 0.0 | 56.7 | 36.7 | 0.5 | 6.2 | 0.0 | 48.5 | 38.3 | 3.3 | 9.8 | 0.0 |
| | 2009 | 39.5 | 39.8 | 7.8 | 12.9 | 0.0 | 60.3 | 33.7 | 0.6 | 5.4 | 0.0 | 51.2 | 36.4 | 3.8 | 8.7 | 0.0 |
| Brazil | 2009 | 57.3 | 21.4 | 18.2 | 3.1 | 0.0 | 68.4 | 29.3 | 0.9 | 1.5 | 0.0 | 63.5 | 25.8 | 8.4 | 2.2 | 0.0 |
| | 2011 | 61.8 | 19.4 | 16.6 | 2.2 | 0.0 | 69.4 | 28.7 | 0.9 | 1.0 | 0.0 | 66.1 | 24.7 | 7.7 | 1.5 | 0.0 |
| Chile | 2010 | 63.4 | 22.7 | 11.6 | 2.3 | 0.0 | 72.3 | 26.5 | 0.3 | 1.0 | 0.0 | 68.8 | 25.0 | 4.7 | 1.5 | 0.0 |
| | 2011 | 62.3 | 23.8 | 11.7 | 2.2 | 0.0 | 73.0 | 25.8 | 0.4 | 0.8 | 0.0 | 68.7 | 25.0 | 4.9 | 1.4 | 0.0 |
| Colombia | 2010 | 42.9 | 43.1 | 8.7 | 5.2 | 0.1 | 47.7 | 49.5 | 0.2 | 2.5 | 0.1 | 45.5 | 46.7 | 4.0 | 3.7 | 0.1 |
| | 2011 | 42.1 | 44.6 | 8.1 | 5.0 | 0.2 | 48.3 | 49.1 | 0.3 | 2.2 | 0.1 | 45.5 | 47.1 | 3.8 | 3.5 | 0.1 |
| Costa Rica | 2010 | 65.3 | 17.8 | 16.0 | 0.9 | 0.0 | 75.5 | 23.0 | 0.9 | 0.6 | 0.0 | 71.3 | 20.8 | 7.1 | 0.7 | 0.0 |
| | 2011 | 63.9 | 18.1 | 17.0 | 1.0 | 0.0 | 75.2 | 23.6 | 0.7 | 0.5 | 0.0 | 70.5 | 21.3 | 7.5 | 0.7 | 0.0 |
| Dominican Republic | 2010 | 55.4 | 29.3 | 12.8 | 2.5 | 0.0 | 47.5 | 50.7 | 0.7 | 1.1 | 0.0 | 50.5 | 42.6 | 5.3 | 1.6 | 0.0 |
| | 2011 | 56.6 | 28.4 | 12.2 | 2.8 | 0.0 | 47.6 | 50.1 | 0.8 | 1.5 | 0.0 | 51.2 | 41.5 | 5.3 | 2.0 | 0.0 |
| Ecuador | 2010 | 49.1 | 33.9 | 8.0 | 9.0 | 0.0 | 63.4 | 33.7 | 0.2 | 2.7 | 0.0 | 57.5 | 33.8 | 3.4 | 5.3 | 0.0 |
| | 2011 | 47.6 | 36.2 | 6.3 | 10.0 | 0.0 | 61.5 | 35.7 | 0.2 | 2.6 | 0.0 | 55.7 | 35.9 | 2.7 | 5.6 | 0.0 |
| El Salvador | 2010 | 45.9 | 39.4 | 7.6 | 6.9 | 0.1 | 68.1 | 27.6 | 0.4 | 3.6 | 0.2 | 57.6 | 33.2 | 3.8 | 5.2 | 0.2 |
| | 2011 | 47.2 | 38.2 | 7.3 | 7.2 | 0.0 | 68.1 | 27.6 | 0.6 | 3.8 | 0.0 | 58.4 | 32.5 | 3.7 | 5.4 | 0.0 |
| Honduras | 2010 | 44.7 | 37.2 | 8.3 | 9.8 | 0.0 | 57.7 | 35.8 | 0.5 | 5.9 | 0.0 | 51.9 | 36.4 | 4.0 | 7.7 | 0.0 |
| | 2011 | 47.6 | 34.9 | 7.3 | 10.2 | 0.0 | 59.0 | 34.7 | 0.2 | 6.1 | 0.0 | 53.9 | 34.8 | 3.4 | 7.9 | 0.0 |
| Mexico | 2010 | 60.7 | 22.2 | 9.4 | 6.0 | 1.8 | 69.5 | 24.9 | 0.7 | 2.1 | 2.8 | 65.9 | 23.8 | 4.3 | 3.7 | 2.4 |
| | 2011 | 61.5 | 20.9 | 10.0 | 5.8 | 1.9 | 70.2 | 24.1 | 0.7 | 1.9 | 3.2 | 66.6 | 22.8 | 4.5 | 3.5 | 2.6 |
| Nicaragua | 2008 | 46.8 | 37.1 | 9.8 | 6.3 | 0.1 | 60.9 | 34.5 | 0.9 | 3.5 | 0.1 | 54.5 | 35.7 | 4.9 | 4.8 | 0.1 |
| | 2010 | 36.3 | 39.5 | 11.1 | 13.1 | 0.1 | 56.3 | 32.0 | 1.6 | 10.1 | 0.1 | 47.0 | 35.5 | 6.0 | 11.5 | 0.1 |
| Panama | 2010 | 68.5 | 18.8 | 11.3 | 1.5 | 0.0 | 72.4 | 26.1 | 0.8 | 0.6 | 0.0 | 70.8 | 23.1 | 5.1 | 1.0 | 0.0 |
| | 2011 | 73.0 | 15.7 | 10.5 | 0.8 | 0.0 | 73.0 | 25.6 | 0.9 | 0.4 | 0.0 | 73.0 | 21.4 | 5.0 | 0.6 | 0.0 |
| Paraguay | 2010 | 40.9 | 32.1 | 21.4 | 4.1 | 1.5 | 64.4 | 28.0 | 0.9 | 2.8 | 3.9 | 54.5 | 29.7 | 9.6 | 3.4 | 2.9 |
| | 2011 | 47.8 | 30.8 | 15.8 | 4.7 | 0.8 | 65.2 | 30.1 | 1.1 | 2.1 | 1.6 | 57.6 | 30.4 | 7.5 | 3.2 | 1.2 |
| Peru | 2010 | 41.4 | 40.9 | 8.5 | 9.1 | 0.1 | 58.2 | 36.8 | 0.3 | 4.3 | 0.3 | 50.7 | 38.6 | 4.0 | 6.5 | 0.2 |
| | 2011 | 44.2 | 39.3 | 7.3 | 8.9 | 0.3 | 58.2 | 36.5 | 0.3 | 4.5 | 0.5 | 52.0 | 37.8 | 3.4 | 6.5 | 0.4 |
| Uruguay | 2010 | 60.5 | 22.2 | 15.4 | 1.6 | 0.4 | 69.5 | 27.7 | 1.2 | 0.6 | 0.9 | 65.3 | 25.2 | 7.7 | 1.1 | 0.7 |
| | 2011 | 62.4 | 21.9 | 14.1 | 1.3 | 0.4 | 71.2 | 26.3 | 1.1 | 0.5 | 0.9 | 67.2 | 24.3 | 7.0 | 0.9 | 0.7 |
| Venezuela (Bolivarian Republic of) | 2010 | 57.6 | 38.3 | 3.2 | 0.9 | 0.0 | 57.1 | 42.4 | 0.1 | 0.4 | 0.0 | 57.3 | 40.8 | 1.3 | 0.6 | 0.0 |
| | 2011 | 58.3 | 37.5 | 2.8 | 1.4 | 0.0 | 57.3 | 42.1 | 0.1 | 0.6 | 0.0 | 57.7 | 40.3 | 1.2 | 0.9 | 0.0 |
| **Latin America [b]** | **2010** | **56.4** | **28.7** | **9.8** | **5.1** | **0.0** | **66.1** | **31.4** | **0.5** | **2.0** | **0.0** | **62.1** | **30.3** | **4.3** | **3.3** | **0.0** |
| | **2011** | **60.7** | **21.0** | **15.3** | **2.7** | **0.2** | **68.5** | **29.1** | **0.8** | **1.1** | **0.5** | **65.1** | **25.6** | **7.1** | **1.8** | **0.4** |

**Source**: International Labour Organization (ILO), 2012 Labour Overview, Latin America and the Caribbean, Lima, ILO regional office for Latin America and the Caribbean, 2012.

[a] Includes 28 urban agglomerations. Data refer to the working-age population, defined as 14 years of age and over.

[b] Weighted average does not include Brazil, because the country's national household survey was not carried out in 2010.

**Table A.4**

**The Caribbean (10 countries): gross economic participation rate [a] by sex, 1990, 2002 and 2011**

*(Percentages)*

| Country | Sex | Selected years | | |
|---|---|---|---|---|
| | | 1990 | 2002 | 2011 |
| Bahamas | **Women** | **61.7** | **64.2** | **63.1** |
| | Men | 77.5 | 72.3 | 69.6 |
| | Both sexes | 69.4 | 68.1 | 66.2 |
| Barbados | **Women** | **59.0** | **65.1** | **63.7** |
| | Men | 75.9 | 77.6 | 77.8 |
| | Both sexes | 67.0 | 71.1 | 70.5 |
| Belize | **Women** | **31.8** | **41.1** | **47.1** |
| | Men | 82.6 | 81.9 | 82.9 |
| | Both sexes | 57.6 | 61.7 | 65.1 |
| Guyana | **Women** | **36.3** | **42.6** | **45.2** |
| | Men | 81.8 | 81.6 | 82.2 |
| | Both sexes | 58.0 | 61.2 | 62.8 |
| Haiti | **Women** | **57.5** | **54.5** | **59.3** |
| | Men | 82.0 | 82.5 | 84.9 |
| | Both sexes | 69.2 | 68.0 | 71.8 |
| Jamaica | **Women** | **65.6** | **57.3** | **52.5** |
| | Men | 79.9 | 75.6 | 72.6 |
| | Both sexes | 72.5 | 66.2 | 62.3 |
| Saint Vincent and the Grenadines | **Women** | **44.5** | **51.6** | **59.6** |
| | Men | 81.0 | 80.3 | 80.1 |
| | Both sexes | 62.4 | 65.9 | 69.8 |
| Saint Lucia | **Women** | **47.3** | **52.0** | **56.5** |
| | Men | 78.6 | 79.6 | 80.6 |
| | Both sexes | 62.5 | 65.5 | 68.3 |
| Suriname | **Women** | **36.5** | **35.2** | **34.2** |
| | Men | 66.8 | 62.6 | 64.9 |
| | Both sexes | 51.4 | 48.7 | 49.3 |
| Trinidad and Tobago | **Women** | **41.7** | **48.2** | **46.3** |
| | Men | 74.6 | 74.9 | 77.0 |
| | Both sexes | 58.1 | 61.3 | 61.3 |

**Source**: International Labour Organization (ILO), online database.

[a] Percentages of the total population. Result of estimates of economic participation rates and total population, on the basis of information from censuses and household surveys conducted in the respective countries.

**Table A.5**

**Latin America (18 countries): women employed [a] in urban areas by occupational category, 1990, 2002 and latest data available**

*(Percentages)*

| Country | Occupational category | Selected years | | |
|---|---|---|---|---|
| | | 1990 [b] | 2002 [c] | Latest data available [d] |
| Argentina [e] | Employers | 2.8 | 2.3 | 2.6 |
| | Wage workers | 57.8 | 67.7 | 66.1 |
| | Own-account workers | 24.5 | 17.0 | 14.9 |
| | Domestic workers | 12.4 | 11.6 | 15.2 |
| | Unpaid workers | 2.1 | 1.4 | 1.2 |
| Bolivia (Plurinational State of) [f] | Employers | 0.8 | 2.3 | 3.5 |
| | Wage workers | 33.0 | 31.6 | 39.9 |
| | Own-account workers | 47.0 | 46.5 | 37.6 |
| | Domestic workers | 12.0 | 8.0 | 7.7 |
| | Unpaid workers | 7.1 | 11.5 | 11.2 |
| Brazil | Employers | 2.5 | 3.1 | 2.5 |
| | Wage workers | 58.8 | 53.6 | 62.0 |
| | Own-account workers | 21.1 | 20.0 | 16.9 |
| | Domestic workers | 14.5 | 19.1 | 16.5 |
| | Unpaid workers | 3.1 | 4.2 | 2.1 |
| Chile | Employers | 1.4 | 3.0 | 1.6 |
| | Wage workers | 59.2 | 61.7 | 66.1 |
| | Own-account workers | 17.6 | 16.7 | 19.1 |
| | Domestic workers | 19.3 | 16.3 | 12.7 |
| | Unpaid workers | 2.4 | 2.3 | 0.5 |
| Colombia [g] | Employers | 2.2 | 2.9 | 3.0 |
| | Wage workers | 57.5 | 43.8 | 42.0 |
| | Own-account workers | 24.0 | 35.2 | 41.7 |
| | Domestic workers | 13.0 | 12.3 | 8.3 |
| | Unpaid workers | 3.3 | 5.8 | 5.0 |
| Costa Rica | Employers | 2.3 | 4.8 | 2.5 |
| | Wage workers | 67.9 | 63.0 | 63.9 |
| | Own-account workers | 13.9 | 19.6 | 15.6 |
| | Domestic workers | 11.8 | 9.8 | 17.0 |
| | Unpaid workers | 4.1 | 2.9 | 1.0 |
| Dominican Republic | Employers | ... | 2.4 | 2.5 |
| | Wage workers | ... | 61.1 | 55.4 |
| | Own-account workers | ... | 25.0 | 26.9 |
| | Domestic workers | ... | 10.0 | 12.7 |
| | Unpaid workers | ... | 1.5 | 2.5 |
| Ecuador | Employers | 2.8 | 4.5 | 2.1 |
| | Wage workers | 45.6 | 44.8 | 47.7 |
| | Own-account workers | 30.0 | 32.1 | 34.1 |
| | Domestic workers | 11.1 | 10.5 | 6.3 |
| | Unpaid workers | 10.5 | 8.0 | 9.8 |
| El Salvador | Employers | ... | 3.5 | 3.2 |
| | Wage workers | ... | 46.1 | 46.0 |
| | Own-account workers | ... | 34.3 | 36.0 |
| | Domestic workers | ... | 8.4 | 7.6 |
| | Unpaid workers | ... | 7.6 | 7.2 |
| Guatemala | Employers | 1.6 | 3.5 | 3.2 |
| | Wage workers | 44.1 | 43.9 | 44.1 |
| | Own-account workers | 29.8 | 32.5 | 30.3 |
| | Domestic workers | 17.3 | 8.6 | 8.9 |
| | Unpaid workers | 7.2 | 11.6 | 13.5 |

Table A.5 (concluded)

| Country | Occupational category | Selected years | | |
|---|---|---|---|---|
| | | 1990 [b] | 2002 [c] | Latest data available [d] |
| Honduras | Employers | 0.9 | 3.0 | 2.5 |
| | Wage workers | 43.7 | 49.2 | 45.3 |
| | Own-account workers | 34.0 | 32.2 | 35.2 |
| | Domestic workers | 15.6 | 8.7 | 8.2 |
| | Unpaid workers | 5.7 | 6.9 | 8.7 |
| Mexico | Employers | 1.3 | 2.0 | 5.9 |
| | Wage workers | 69.4 | 61.7 | 67.9 |
| | Own-account workers | 17.3 | 18.9 | 13.2 |
| | Domestic workers | 7.0 | 8.2 | 8.8 |
| | Unpaid workers | 4.9 | 9.3 | 4.3 |
| Nicaragua | Employers | ... | 2.6 | 0.6 |
| | Wage workers | ... | 42.2 | 42.5 |
| | Own-account workers | ... | 35.8 | 40.7 |
| | Domestic workers | ... | 10.0 | 10.1 |
| | Unpaid workers | ... | 9.5 | 5.6 |
| Panama | Employers | 1.6 | 1.8 | 2.4 |
| | Wage workers | 70.7 | 65.9 | 73.0 |
| | Own-account workers | 10.0 | 15.6 | 13.3 |
| | Domestic workers | 16.4 | 15.2 | 10.5 |
| | Unpaid workers | 1.3 | 1.4 | 0.8 |
| Paraguay [h] | Employers | 2.4 | 4.3 | 3.4 |
| | Wage workers | 42.4 | 38.1 | 48.9 |
| | Own-account workers | 30.6 | 31.2 | 27.6 |
| | Domestic workers | 24.4 | 21.0 | 15.7 |
| | Unpaid workers | 0.1 | 5.3 | 4.3 |
| Peru [i] | Employers | ... | 2.4 | 3.3 |
| | Wage workers | ... | 35.9 | 42.4 |
| | Own-account workers | ... | 40.7 | 38.4 |
| | Domestic workers | ... | 11.2 | 7.2 |
| | Unpaid workers | ... | 9.8 | 8.7 |
| Uruguay | Employers | 2.4 | 2.1 | 2.9 |
| | Wage workers | 58.8 | 56.4 | 61.6 |
| | Own-account workers | 18.3 | 19.5 | 19.8 |
| | Domestic workers | 17.0 | 19.6 | 14.4 |
| | Unpaid workers | 3.5 | 2.4 | 1.3 |
| Venezuela (Bolivarian Republic of) [j] | Employers | 2.3 | 2.5 | 1.7 |
| | Wage workers | 71.9 | 48.8 | 57.7 |
| | Own-account workers | 17.9 | 38.4 | 36.3 |
| | Domestic workers | 5.6 | 6.6 | 3.0 |
| | Unpaid workers | 2.3 | 3.8 | 1.4 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Employed female population aged 15 years and over, in urban areas.
[b] Data for 1990, except for Guatemala, Mexico and Plurinational State of Bolivia, where they refer to 1989, and Colombia and Panama, where they refer to 1991.
[c] Data for 2002, except for El Salvador, Nicaragua, Paraguay and Peru, where they refer to 2001, and Chile, where they refer to 2003.
[d] Data for 2011, except for Guatemala, where they refer to 2006; Nicaragua and Plurinational State of Bolivia, where they refer to 2009, and El Salvador, Honduras and Mexico, where they refer to 2010.
[e] Data for 1990 refer to the metropolitan area, those for 2002 to 32 urban agglomerations and the latest data available (2011) to 31 urban agglomerations.
[f] Data for 1989 refer to Cochabamba, El Alto, La Paz, Oruro, Potosí, Santa Cruz, Sucre, Tarija and Trinidad.
[g] From 2002 on, the figures for urban and rural areas are not strictly comparable with those for earlier years, owing to changes in the survey sample design.
[h] Data for 1990 refer to the metropolitan area of Asunción.
[i] From 2004 on, the figures are not strictly comparable with those for earlier years, owing to methodological changes.
[j] From 1998 on, the survey sample design does not allow urban-rural breakdown. The figures therefore refer to the national total.

**Table A.6**

**Latin America (18 countries): employed persons [a] by sex and kind of economic activity, national total, 1990, 2002 and latest data available**

*(Percentages)*

| Country and kind of economic activity | Women | | | Men | | |
|---|---|---|---|---|---|---|
| | Selected years | | | Selected years | | |
| | 1990 [b] | 2002 [c] | Latest data available [d] | 1990 [b] | 2002 [c] | Latest data available [d] |
| **Argentina** [e] | | | | | | |
| Agriculture | 0.2 | 0.7 | 0.3 | 0.5 | 1.5 | 1.8 |
| Mining | 0.0 | 0.1 | 0.2 | 0.0 | 0.4 | 0.7 |
| Manufacturing | 17.2 | 8.7 | 9.1 | 28.3 | 15.8 | 17.0 |
| Electricity, gas and water | 0.4 | 0.2 | 0.3 | 1.3 | 0.7 | 0.8 |
| Construction | 0.2 | 0.3 | 0.6 | 9.8 | 11.3 | 15.0 |
| Commerce | 16.0 | 18.7 | 22.2 | 20.6 | 23.5 | 23.5 |
| Transport | 2.3 | 2.1 | 3.2 | 9.3 | 10.8 | 11.2 |
| Financial services | 8.5 | 8.4 | 8.9 | 7.8 | 9.8 | 9.6 |
| Other services | 55.2 | 60.5 | 54.6 | 22.5 | 26.0 | 19.9 |
| Not specified | 0.0 | 0.2 | 0.6 | 0.0 | 0.2 | 0.6 |
| **Bolivia (Plurinational State of)** [f] | | | | | | |
| Agriculture | 1.3 | 36.1 | 30.9 | 3.1 | 42.1 | 29.6 |
| Mining | 0.4 | 0.2 | 0.1 | 3.3 | 1.7 | 1.7 |
| Manufacturing | 10.6 | 10.3 | 9.8 | 16.5 | 12.8 | 13.2 |
| Electricity, gas and water | 0.4 | 0.1 | 0.1 | 1.4 | 0.3 | 0.4 |
| Construction | 0.5 | 0.7 | 0.6 | 13.2 | 9.7 | 13.4 |
| Commerce | 42.4 | 29.8 | 29.6 | 13.5 | 11.6 | 12.9 |
| Transport | 1.5 | 0.8 | 1.9 | 12.5 | 8.0 | 10.9 |
| Financial services | 1.6 | 2.2 | 4.1 | 2.9 | 3.1 | 4.3 |
| Other services | 41.3 | 19.6 | 22.7 | 33.5 | 10.7 | 13.5 |
| Not specified | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 |
| **Brazil** | | | | | | |
| Agriculture | 11.2 | 16.0 | 11.0 | 24.6 | 22.5 | 18.4 |
| Mining | 0.1 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 |
| Manufacturing | 12.0 | 12.0 | 11.0 | 17.7 | 14.8 | 13.9 |
| Electricity, gas and water | 0.3 | 0.2 | 0.2 | 1.1 | 1.1 | 1.2 |
| Construction | 0.5 | 0.5 | 0.5 | 9.9 | 12.1 | 14.2 |
| Commerce | 13.7 | 19.8 | 23.8 | 12.9 | 21.6 | 21.9 |
| Transport | 0.9 | 1.2 | 1.7 | 6.0 | 7.2 | 8.3 |
| Financial services | 2.4 | 5.9 | 8.2 | 2.5 | 7.4 | 9.2 |
| Other services | 58.6 | 44.3 | 43.4 | 23.8 | 12.9 | 12.8 |
| Not specified | 0.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.2 |
| **Chile** | | | | | | |
| Agriculture | 5.1 | 6.3 | 5.8 | 22.8 | 17.2 | 12.3 |
| Mining | 0.3 | 0.3 | 0.6 | 3.3 | 2.2 | 4.2 |
| Manufacturing | 15.1 | 9.8 | 7.2 | 18.2 | 15.3 | 12.1 |
| Electricity, gas and water | 0.0 | 0.3 | 0.3 | 0.0 | 0.7 | 1.1 |
| Construction | 0.9 | 1.1 | 1.0 | 10.3 | 13.0 | 15.2 |
| Commerce | 22.8 | 25.2 | 29.9 | 15.0 | 16.7 | 22.5 |
| Transport | 2.5 | 3.4 | 3.5 | 9.6 | 10.4 | 10.6 |
| Financial services | 7.5 | 7.0 | 8.8 | 7.4 | 6.8 | 8.5 |
| Other services | 45.4 | 46.3 | 42.8 | 13.0 | 17.3 | 13.7 |
| Not specified | 0.4 | 0.2 | 0.0 | 0.5 | 0.3 | 0.0 |
| **Colombia** [g] | | | | | | |
| Agriculture | 10.2 | 6.5 | 6.8 | 34.4 | 29.1 | 25.2 |
| Mining | 0.8 | 0.7 | 0.5 | 1.4 | 1.4 | 1.7 |
| Manufacturing | 19.1 | 15.7 | 14.4 | 13.0 | 11.9 | 12.1 |
| Electricity, gas and water | 0.3 | 0.2 | 0.3 | 0.8 | 0.6 | 0.7 |

Table A.6 (continued)

| Country and kind of economic activity | Women | | | Men | | |
|---|---|---|---|---|---|---|
| | Selected years | | | Selected years | | |
| | 1990 [b] | 2002 [c] | Latest data available [d] | 1990 [b] | 2002 [c] | Latest data available [d] |
| Construction | 0.5 | 0.5 | 0.6 | 6.8 | 7.6 | 9.4 |
| Commerce | 27.4 | 28.8 | 32.1 | 17.2 | 23.0 | 22.4 |
| Transport | 1.4 | 1.9 | 3.7 | 7.1 | 9.7 | 11.5 |
| Financial services | 3.6 | 5.6 | 9.4 | 3.8 | 5.4 | 6.7 |
| Other services | 36.4 | 40.0 | 32.1 | 15.5 | 11.2 | 10.3 |
| Not specified | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 |
| **Costa Rica** | | | | | | |
| Agriculture | 6.0 | 4.0 | 4.3 | 33.0 | 21.7 | 20.1 |
| Mining | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.1 |
| Manufacturing | 23.6 | 13.7 | 9.8 | 15.9 | 14.6 | 13.1 |
| Electricity, gas and water | 0.4 | 1.0 | 0.9 | 1.6 | 1.6 | 2.2 |
| Construction | 0.4 | 0.4 | 0.8 | 8.8 | 10.1 | 9.6 |
| Commerce | 21.0 | 27.7 | 26.2 | 13.6 | 22.5 | 21.6 |
| Transport | 0.9 | 1.6 | 2.8 | 5.2 | 7.9 | 8.8 |
| Financial services | 2.5 | 9.0 | 9.7 | 3.8 | 8.4 | 9.2 |
| Other services | 44.5 | 42.3 | 45.4 | 17.0 | 12.6 | 15.0 |
| Not specified | 0.7 | 0.2 | 0.1 | 0.8 | 0.4 | 0.4 |
| **Dominican Republic** | | | | | | |
| Agriculture | ... | 2.3 | 2.5 | ... | 23.8 | 21.6 |
| Mining | ... | 0.0 | 0.4 | ... | 0.3 | 0.5 |
| Manufacturing | ... | 14.5 | 8.7 | ... | 14.1 | 11.1 |
| Electricity, gas and water | ... | 0.3 | 0.4 | ... | 0.9 | 0.9 |
| Construction | ... | 0.7 | 0.4 | ... | 9.1 | 9.8 |
| Commerce | ... | 30.6 | 30.4 | ... | 23.4 | 26.1 |
| Transport | ... | 2.0 | 1.6 | ... | 10.4 | 10.8 |
| Financial services | ... | 6.2 | 7.1 | ... | 4.1 | 5.7 |
| Other services | ... | 43.4 | 48.6 | ... | 13.9 | 13.5 |
| Not specified | ... | 0.0 | 0.0 | ... | 0.0 | 0.0 |
| **Ecuador** [h] | | | | | | |
| Agriculture | 2.4 | 4.5 | 20.5 | 9.3 | 10.9 | 32.5 |
| Mining | 0.2 | 0.2 | 0.1 | 0.9 | 0.9 | 0.8 |
| Manufacturing | 16.1 | 12.8 | 10.3 | 19.0 | 15.6 | 10.9 |
| Electricity, gas and water | 0.4 | 0.1 | 0.2 | 1.4 | 0.6 | 0.6 |
| Construction | 0.5 | 1.1 | 0.8 | 11.0 | 10.7 | 9.5 |
| Commerce | 36.2 | 38.0 | 35.2 | 21.5 | 28.4 | 19.8 |
| Transport | 1.3 | 2.0 | 2.1 | 8.3 | 9.4 | 8.9 |
| Financial services | 3.7 | 4.0 | 5.3 | 5.3 | 7.1 | 5.7 |
| Other services | 39.3 | 37.3 | 25.5 | 23.2 | 16.3 | 11.3 |
| Not specified | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **El Salvador** | | | | | | |
| Agriculture | ... | 3.7 | 5.5 | ... | 32.1 | 32.6 |
| Mining | ... | 0.0 | 0.0 | ... | 0.2 | 0.1 |
| Manufacturing | ... | 23.8 | 20.6 | ... | 18.4 | 18.4 |
| Electricity, gas and water | ... | 0.0 | 0.1 | ... | 0.8 | 0.7 |
| Construction | ... | 0.3 | 0.4 | ... | 9.3 | 8.9 |
| Commerce | ... | 40.4 | 42.0 | ... | 18.2 | 19.2 |
| Transport | ... | 1.3 | 1.2 | ... | 7.2 | 6.6 |
| Financial services | ... | 1.7 | 1.3 | ... | 1.1 | 1.0 |
| Other services | ... | 28.6 | 28.7 | ... | 12.8 | 12.6 |
| Not specified | ... | 0.0 | 0.0 | ... | 0.0 | 0.0 |
| **Guatemala** | | | | | | |
| Agriculture | 14.6 | 19.7 | 14.7 | 59.4 | 47.4 | 40.6 |
| Mining | 0.0 | 0.0 | 0.0 | 0.3 | 0.5 | 0.2 |

Table A.6 (continued)

| Country and kind of economic activity | Women | | | Men | | |
|---|---|---|---|---|---|---|
| | Selected years | | | Selected years | | |
| | 1990 [b] | 2002 [c] | Latest data available [d] | 1990 [b] | 2002 [c] | Latest data available [d] |
| Manufacturing | 23.4 | 23.8 | 20.7 | 10.7 | 11.4 | 13.8 |
| Electricity, gas and water | 0.2 | 0.0 | 0.1 | 0.5 | 0.3 | 0.4 |
| Construction | 0.2 | 0.2 | 0.3 | 5.7 | 8.6 | 11.2 |
| Commerce | 29.4 | 32.8 | 34.2 | 8.3 | 17.2 | 16.0 |
| Transport | 0.8 | 0.4 | 0.7 | 3.4 | 3.3 | 4.7 |
| Financial services | 1.6 | 0.8 | 2.4 | 1.4 | 0.7 | 4.3 |
| Other services | 29.7 | 22.2 | 27.0 | 10.3 | 10.4 | 8.8 |
| Not specified | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| **Honduras** | | | | | | |
| Agriculture | 5.7 | 8.6 | 12.3 | 56.5 | 51.6 | 49.8 |
| Mining | 0.1 | 0.1 | 0.0 | 0.5 | 0.3 | 0.3 |
| Manufacturing | 22.0 | 25.6 | 18.4 | 10.4 | 11.6 | 9.8 |
| Electricity, gas and water | 0.2 | 0.2 | 0.3 | 0.7 | 0.6 | 0.7 |
| Construction | 0.3 | 0.4 | 0.3 | 6.9 | 7.8 | 8.2 |
| Commerce | 33.5 | 32.7 | 36.8 | 10.2 | 14.0 | 15.0 |
| Transport | 0.7 | 1.3 | 1.0 | 3.2 | 4.4 | 5.2 |
| Financial services | 1.5 | 3.1 | 3.7 | 1.3 | 2.7 | 3.3 |
| Other services | 35.9 | 28.1 | 26.5 | 10.2 | 7.1 | 7.0 |
| Not specified | 0.1 | 0.0 | 0.6 | 0.0 | 0.0 | 0.8 |
| **Mexico** | | | | | | |
| Agriculture | 9.9 | 9.2 | 5.0 | 31.5 | 21.0 | 18.3 |
| Mining | 0.5 | 0.0 | 0.2 | 1.7 | 0.0 | 0.7 |
| Manufacturing | 18.6 | 18.1 | 14.9 | 15.3 | 17.0 | 16.4 |
| Electricity, gas and water | 0.1 | 0.1 | 0.2 | 0.7 | 1.1 | 0.5 |
| Construction | 0.8 | 0.6 | 0.9 | 8.9 | 11.7 | 13.1 |
| Commerce | 24.2 | 27.3 | 25.5 | 13.7 | 16.0 | 15.1 |
| Transport | 1.1 | 0.7 | 1.9 | 4.7 | 6.6 | 7.0 |
| Financial services | 2.3 | 0.0 | 1.8 | 1.5 | 0.0 | 1.4 |
| Other services | 42.5 | 44.0 | 49.6 | 21.9 | 26.6 | 27.2 |
| Not specified | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.2 |
| **Nicaragua** | | | | | | |
| Agriculture | ... | 9.3 | 10.3 | ... | 45.2 | 46.7 |
| Mining | ... | 0.1 | 0.1 | ... | 0.8 | 0.7 |
| Manufacturing | ... | 14.5 | 15.1 | ... | 10.3 | 9.5 |
| Electricity, gas and water | ... | 0.4 | 0.1 | ... | 0.9 | 0.4 |
| Construction | ... | 0.3 | 0.3 | ... | 8.0 | 6.4 |
| Commerce | ... | 36.0 | 33.8 | ... | 15.9 | 15.7 |
| Transport | ... | 0.7 | 0.9 | ... | 5.5 | 6.1 |
| Financial services | ... | 0.5 | 2.9 | ... | 0.5 | 3.7 |
| Other services | ... | 38.2 | 36.1 | ... | 12.9 | 10.2 |
| Not specified | ... | 0.0 | 0.5 | ... | 0.0 | 0.6 |
| **Panama** [i] | | | | | | |
| Agriculture | 0.4 | 5.8 | 7.1 | 7.5 | 29.1 | 23.1 |
| Mining | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 |
| Manufacturing | 8.4 | 8.7 | 7.1 | 13.5 | 9.2 | 6.8 |
| Electricity, gas and water | 1.0 | 0.4 | 0.7 | 2.2 | 1.0 | 1.2 |
| Construction | 0.3 | 0.8 | 1.7 | 6.1 | 9.4 | 15.9 |
| Commerce | 23.3 | 26.9 | 28.4 | 28.4 | 19.3 | 19.5 |
| Transport | 3.3 | 2.9 | 3.7 | 12.5 | 9.7 | 10.7 |
| Financial services | 6.8 | 7.1 | 4.9 | 6.7 | 5.1 | 2.2 |
| Other services | 56.4 | 47.5 | 46.2 | 23.0 | 17.0 | 20.4 |
| Not specified | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |

Table A.6 (concluded)

| Country and kind of economic activity | Women | | | Men | | |
|---|---|---|---|---|---|---|
| | Selected years | | | Selected years | | |
| | 1990 [b] | 2002 [c] | Latest data available [d] | 1990 [b] | 2002 [c] | Latest data available [d] |
| **Paraguay** [j] | | | | | | |
| Agriculture | 0.8 | 19.8 | 19.7 | 3.1 | 37.7 | 29.4 |
| Mining | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.0 |
| Manufacturing | 14.9 | 10.2 | 8.3 | 19.8 | 13.0 | 12.2 |
| Electricity, gas and water | 0.5 | 0.3 | 0.4 | 1.9 | 0.6 | 0.6 |
| Construction | 0.1 | 0.1 | 0.3 | 14.1 | 7.9 | 11.0 |
| Commerce | 28.4 | 30.2 | 29.1 | 20.7 | 20.3 | 23.2 |
| Transport | 2.5 | 1.0 | 1.8 | 8.3 | 5.4 | 5.9 |
| Financial services | 4.2 | 2.8 | 4.6 | 6.6 | 3.9 | 4.7 |
| Other services | 48.6 | 35.7 | 35.7 | 25.1 | 11.0 | 12.9 |
| Not specified | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| **Peru** [k] | | | | | | |
| Agriculture | ... | 30.6 | 23.7 | ... | 38.8 | 28.9 |
| Mining | ... | 0.1 | 0.2 | ... | 0.8 | 2.1 |
| Manufacturing | ... | 8.5 | 9.4 | ... | 10.6 | 10.7 |
| Electricity, gas and water | ... | 0.1 | 0.0 | ... | 0.3 | 0.3 |
| Construction | ... | 0.2 | 0.5 | ... | 6.5 | 9.6 |
| Commerce | ... | 35.1 | 36.7 | ... | 17.5 | 16.5 |
| Transport | ... | 0.8 | 1.9 | ... | 8.7 | 12.0 |
| Financial services | ... | 2.1 | 4.2 | ... | 4.1 | 5.7 |
| Other services | ... | 22.5 | 23.3 | ... | 12.7 | 14.1 |
| Not specified | ... | 0.0 | 0.0 | ... | 0.0 | 0.0 |
| **Uruguay** [h] | | | | | | |
| Agriculture | 1.0 | 1.3 | 4.9 | 4.9 | 6.2 | 14.2 |
| Mining | 0.1 | 0.0 | 0.0 | 0.3 | 0.2 | 0.4 |
| Manufacturing | 19.2 | 11.1 | 10.4 | 21.8 | 15.3 | 15.1 |
| Electricity, gas and water | 0.6 | 0.7 | 0.5 | 2.2 | 1.8 | 1.2 |
| Construction | 0.4 | 0.4 | 0.6 | 11.0 | 12.6 | 12.9 |
| Commerce | 17.4 | 19.8 | 21.8 | 18.2 | 23.7 | 21.3 |
| Transport | 2.1 | 2.1 | 2.7 | 8.4 | 8.9 | 8.4 |
| Financial services | 4.5 | 9.1 | 8.7 | 5.3 | 9.5 | 8.7 |
| Other services | 54.8 | 55.5 | 50.2 | 28.0 | 21.7 | 17.8 |
| Not specified | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Venezuela (Bolivarian Republic of)** [l] | | | | | | |
| Agriculture | 2.2 | 1.9 | 1.6 | 18.0 | 15.0 | 11.9 |
| Mining | 0.4 | 0.2 | 0.4 | 1.3 | 0.6 | 1.5 |
| Manufacturing | 13.3 | 10.3 | 9.0 | 16.1 | 12.6 | 12.8 |
| Electricity, gas and water | 0.7 | 0.3 | 0.2 | 1.2 | 0.7 | 0.6 |
| Construction | 0.9 | 0.8 | 0.9 | 10.2 | 12.3 | 14.2 |
| Commerce | 22.5 | 34.8 | 32.5 | 19.9 | 21.8 | 18.4 |
| Transport | 1.6 | 1.5 | 2.2 | 8.3 | 10.9 | 13.8 |
| Financial services | 7.7 | 4.7 | 5.4 | 5.2 | 4.9 | 5.7 |
| Other services | 50.6 | 45.2 | 47.5 | 19.7 | 20.8 | 20.8 |
| Not specified | 0.1 | 0.3 | 0.2 | 0.1 | 0.3 | 0.3 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Employed population aged 15 years and over.
[b] Data for 1990, except for Guatemala, Mexico and Plurinational State of Bolivia, where they refer to 1989, and Colombia and Panama, where they refer to 1991.
[c] Data for 2002, except for El Salvador, Nicaragua, Paraguay and Peru, where they refer to 2001, and Chile, where they refer to 2003.
[d] Data for 2011, except for Guatemala, where they refer to 2006; Nicaragua and Plurinational State of Bolivia, where they refer to 2009, and El Salvador, Honduras and Mexico, where they refer to 2010.
[e] Data for 1990 refer to the metropolitan area, those for 2002 to 32 urban agglomerations and the latest data available (2011) to 31 urban agglomerations.
[f] Data for 1989 refer to Cochabamba, El Alto, La Paz, Oruro, Potosí, Santa Cruz, Sucre, Tarija and Trinidad.
[g] From 2002 on, the figures for urban and rural areas are not strictly comparable with those for earlier years, owing to changes in the survey sample design.
[h] Data for 1990 and 2002 refer to urban areas.
[i] Data for 1991 refer to urban areas.
[j] Data for 1990 refer to the metropolitan area of Asunción.
[k] From 2004 on, the figures are not strictly comparable with those for earlier years, owing to methodological changes.
[l] From 1998 on, the survey sample design does not allow urban-rural breakdown. The figures therefore refer to the national total.

**Table A.7**

**Latin America (17 countries): employed population in the non-wage category, subcategory employers, by sex and size of establishment, two latest years available**

*(Percentages in relation to the total employed population)*

| Country | Years | Women | | Men | | Total | |
|---|---|---|---|---|---|---|---|
| | | Non-waged Employers | | Non-waged Employers | | Non-waged Employers | |
| | | Establishments with 5 or more workers | Establishments with 6 or more workers | Establishments with 5 or more workers | Establishments with 6 or more workers | Establishments with 5 or more workers | Establishments with 6 or more workers |
| Argentina [a] | 2010 | 1.9 | 0.5 | 3.7 | 1.5 | 3.0 | 1.1 |
| | 2011 | 2.1 | 0.4 | 3.6 | 1.8 | 3.0 | 1.2 |
| Bolivia (Plurinational State of) | 2008 | 2.6 | 0.9 | 5.7 | 2.6 | 4.3 | 1.9 |
| | 2009 | 3.1 | 0.3 | 5.7 | 1.1 | 4.5 | 0.7 |
| Brazil | 2009 | 2.2 | 0.8 | 4.4 | 1.7 | 3.4 | 1.3 |
| | 2011 | 1.8 | 0.7 | 3.0 | 1.6 | 2.5 | 1.2 |
| Chile | 2010 | 2.1 | 0.7 | 3.7 | 2.1 | 3.1 | 1.6 |
| | 2011 | 2.2 | 0.6 | 3.5 | 2.2 | 3.0 | 1.6 |
| Colombia | 2010 | 2.4 | 0.5 | 5.3 | 1.0 | 4.0 | 0.8 |
| | 2011 | 2.6 | 0.5 | 5.3 | 1.3 | 4.1 | 0.9 |
| Costa Rica | 2010 | 1.3 | 0.5 | 3.1 | 1.5 | 2.4 | 1.1 |
| | 2011 | 2.0 | 0.6 | 3.4 | 1.8 | 2.8 | 1.3 |
| Dominican Republic | 2010 | 2.6 | 0.4 | 3.2 | 1.5 | 3.0 | 1.1 |
| | 2011 | 1.7 | 0.6 | 3.3 | 2.1 | 2.6 | 1.5 |
| Ecuador | 2010 | 1.9 | 0.4 | 3.9 | 1.6 | 3.1 | 1.1 |
| | 2011 | 1.9 | 0.2 | 3.7 | 0.9 | 3.0 | 0.6 |
| El Salvador | 2010 | 3.1 | 0.1 | 4.7 | 0.8 | 4.0 | 0.5 |
| | 2011 | 2.8 | 0.1 | 4.4 | 0.6 | 3.6 | 0.4 |
| Honduras | 2010 | 2.2 | 0.3 | 3.9 | 0.9 | 3.1 | 0.6 |
| | 2011 | 1.8 | 0.0 | 3.6 | 0.7 | 2.8 | 0.4 |
| Mexico | 2010 | 2.1 | 0.4 | 5.2 | 1.4 | 3.9 | 2.5 |
| | 2011 | 2.1 | 0.3 | 5.2 | 1.3 | 3.9 | 0.9 |
| Nicaragua | 2008 | 1.9 | 0.3 | 3.9 | 1.3 | 3.0 | 0.9 |
| | 2010 | 2.6 | 0.1 | 6.9 | 1.1 | 4.9 | 0.7 |
| Panama | 2010 | 1.4 | 0.6 | 2.8 | 1.7 | 2.2 | 1.3 |
| | 2011 | 1.7 | 0.7 | 2.8 | 1.6 | 2.3 | 1.2 |
| Paraguay | 2010 | 3.1 | 0.6 | 6.0 | 1.6 | 4.8 | 1.2 |
| | 2011 | 3.0 | 0.4 | 6.6 | 1.6 | 5.0 | 1.1 |
| Peru | 2010 | 3.3 | 0.3 | 6.5 | 1.6 | 5.1 | 1.0 |
| | 2011 | 2.8 | 0.4 | 6.1 | 1.3 | 4.6 | 0.9 |
| Uruguay | 2010 | 1.9 | 0.7 | 3.7 | 1.6 | 2.9 | 1.2 |
| | 2011 | 1.9 | 0.7 | 3.7 | 1.6 | 2.9 | 1.2 |
| Venezuela (Bolivarian Republic of) | 2010 | 1.2 | 0.3 | 3.5 | 1.2 | 2.6 | 0.9 |
| | 2011 | 1.3 | 0.4 | 3.7 | 1.0 | 2.7 | 0.7 |
| **Latin America** [b] | **2010** | **2.2** | **0.5** | **5.0** | **1.4** | **3.9** | **1.0** |
| | **2011** | **1.8** | **0.7** | **3.4** | **1.5** | **2.7** | **1.2** |

**Source**: International Labour Organization (ILO), 2012 Labour Overview, Latin America and the Caribbean, Lima, ILO regional office for Latin America and the Caribbean, 2012.

[a] Data refer to the working-age population, defined as 14 years and over, in 28 urban agglomerations.

[b] Weighted average does not include Brazil, because the country's national household survey was not carried out in 2010.

**Table A.8**

**Latin America (15 countries): employed population [a] by main kinds of economic activity and sex, latest data available**

*(Percentages)*

| Country [b] | Main economic activities | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Agriculture | | | Manufacturing | | | Commerce | | | Services | | |
| | Women | Men | Number of women employed for every 100 men employed | Women | Men | Number of women employed for every 100 men employed | Women | Men | Number of women employed for every 100 men employed | Women | Men | Number of women employed for every 100 men employed |
| Argentina | 15.3 | 84.7 | 18.1 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Brazil | 30.5 | 69.5 | 44.0 | 29.5 | 70.5 | 41.8 | 31.6 | 68.4 | 46.1 | 38.9 | 61.1 | 63.7 |
| Chile | 29.4 | 70.6 | 41.7 | 23.0 | 77.0 | 29.8 | 34.2 | 65.8 | 52.0 | 42.3 | 57.7 | 73.4 |
| Colombia | | | | 35.7 | 64.3 | 55.6 | 36.8 | 63.2 | 58.2 | 44.6 | 55.4 | 80.6 |
| Costa Rica | 13.7 | 86.3 | 15.9 | 27.9 | 72.1 | 38.8 | 42.2 | 57.8 | 72.9 | 31.2 | 68.8 | 45.3 |
| Cuba | 17.4 | 82.6 | 21.0 | 30.7 | 69.3 | 44.3 | 44.4 | 55.6 | 79.9 | 48.6 | 51.4 | 94.6 |
| Dominican Republic | ... | ... | ... | 24.4 | 75.6 | 32.2 | 56.2 | 43.8 | 128.3 | 27.5 | 72.5 | 37.9 |
| Ecuador | 45.0 | 55.0 | 82.0 | 29.3 | 70.7 | 41.4 | 45.0 | 55.0 | 81.7 | 38.3 | 61.7 | 62.0 |
| El Salvador | 27.4 | 72.6 | 37.7 | 48.1 | 51.9 | 92.6 | 49.0 | 51.0 | 96.2 | 55.0 | 45.0 | 122.3 |
| Guatemala | 8.4 | 91.6 | 9.2 | 29.9 | 70.1 | 42.6 | 51.1 | 48.9 | 104.4 | 41.1 | 58.9 | 69.7 |
| Honduras | ... | ... | ... | 52.5 | 47.5 | 110.5 | ... | ... | ... | ... | ... | ... |
| Mexico | 11.6 | 88.4 | 13.0 | 35.9 | 64.1 | 55.9 | 53.4 | 46.6 | 114.8 | 43.0 | 57.0 | 75.4 |
| Nicaragua | 22.0 | 78.0 | 28.2 | 44.0 | 56.0 | 78.7 | 56.1 | 43.9 | 128.0 | 33.5 | 66.5 | 50.4 |
| Panama | 32.3 | 67.7 | 47.7 | ... | ... | ... | . | ... | ... | ... | ... | ... |
| Paraguay | 6.6 | 93.4 | 7.1 | ... | ... | ... | ... | ... | ... | ... | ... | ... |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the latest official statistical information available for each country: for Argentina: National Institute of Statistics and Censuses (INDEC), National Agriculturel Census 2002; for Brazil: Brazilian Geographical and Statistical Institute (IBGE), Agriculturel Census 2006 and Directorate of Surveys, Central Registry of Companies 2010; for Chile: National Institute of Statistics (INE), Agriculturel Census 2007-2008, Commerce Survey 2010, National Annual Industrial Survey (ENIA) 2009 and Services Survey 2010; for Colombia: National Administrative Department of Statistics (DANE), Annual Services Survey 2011 and Annual Manufacturing Survey 2010; for Costa Rica: Office of the President of the Republic of Costa Rica, Directorate General of Civil Service (DGSC), document presented at the fifteenth forum organized by the Central American Institute for Public Administration (CAIPA) and the Directorate General of Civil Service (DGSC), 2008; for Cuba: National Statistics Office (ONE), *Anuario Estadístico de Cuba 2010*; for Ecuador: National Statistics and Census Institute (INEC), National Agriculturel Census 2000 and National Economic Census (CENEC) 2010; for El Salvador: Ministry of Economic Affairs (MIDECON) and Department of Statistics and Censuses (DIGESTYC), *Directorio de Unidades Económicas 2011-2012*, Ciudad Delgado, 2012; for Guatemala: Guatemalan Social Security Institute (IGSS), *Boletín Estadístico Afiliación. Año 2011*; for Honduras: Central Bank of Honduras, *Industria de bienes para transformación (maquila) y actividades conexas en Honduras*, Tegucigalpa, 2011; for Mexico: National Institute of Statistics and Geography (INEGI), Agriculture, Livestock and Forestry Census 2007 and Economic Census 2009; for Nicaragua: Nicaraguan Social Security Institute (INSS), *Anuario Estadístico 2011*, Managua, 2012; for Panama: National Statistics and Census Institute (INEC), VII National Agriculturel Census, 2011; for Paraguay: Ministry of Agriculture and Livestock (MAG), National Agriculturel Census 2008; and for Dominican Republic: National Statistics Office (ONE), National Survey of Economic Activities (ENAE) 2009.

[a] Refers to the total number of persons employed in a particular year, whether in temporary or permanent employment. Shows only information that is available online and disaggregated by sex.

[b] The data refer to the following years: Argentina, 2002 (agriculture only); Brazil, 2006 (agriculture) and 2010 (all other activities); Chile, 2007-2008 (agriculture), 2009 (manufacturing) and 2010 (commerce and services); Colombia, 2010 (manufacturing) and 2011 (commerce and services); Costa Rica, 2008; Cuba, 2010; Dominican Republic, 2009 (manufacturing, commerce and services); Ecuador, 2000 (agriculture) and 2010 (all other activities); El Salvador, 2011; Guatemala, 2011; Honduras, 2011 (manufacturing only); Mexico, 2007 (agriculture) and 2009 (all other activities); Nicaragua, 2011; Panama, 2011 (agriculture only); and Paraguay, 2008 (agriculture only).

## Table A.9

**Brazil and Ecuador: persons employed [a] in firms and establishments by sex and kind of economic activity, 2010**

*(Numbers of persons and percentages)*

| Economic activity [b] | | Brazil | | | | | | Ecuador | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Numbers of persons | | | Percentages | | Number of women employed for every 100 men employed | Numbers of persons | | | Percentages | | Number of women employed for every 100 men employed |
| Section | Name | Women | Men | Total | Women | Men | | Women | Men | Total | Women | Men | |
| A | Agriculture, forestry and fishing | 72 270 | 374 446 | 446 716 | 16.2 | 83.8 | 19 | 10 727 | 26 553 | 37 280 | 28.8 | 71.2 | 40 |
| B | Mining and quarrying | 19 037 | 163 782 | 182 819 | 10.4 | 89.6 | 12 | 1 372 | 12 423 | 13 795 | 9.9 | 90.1 | 11 |
| C | Manufacturing | 2 360 911 | 5 651 670 | 8 012 581 | 29.5 | 70.5 | 42 | 78 108 | 188 800 | 266 908 | 29.3 | 70.7 | 41 |
| D | Electricity, gas, steam and air conditioning supply | 23 674 | 101 545 | 125 219 | 18.9 | 81.1 | 23 | 1 802 | 6 890 | 8 692 | 20.7 | 79.3 | 26 |
| E | Water supply, sewerage, waste management and remediation activities | 69 945 | 290 288 | 360 233 | 19.4 | 80.6 | 24 | 1 298 | 5 056 | 6 354 | 20.4 | 79.6 | 26 |
| F | Construction | 212 248 | 2 416 328 | 2 628 576 | 8.1 | 91.9 | 9 | 3 626 | 29 223 | 32 849 | 11.0 | 89.0 | 12 |
| G | Wholesale and retail trade, repair of motor vehicles and motorcycles | 3 449 097 | 4 576 181 | 8 025 278 | 43.0 | 57.0 | 75 | 299 589 | 311 801 | 611 390 | 49.0 | 51.0 | 96 |
| H | Transportation and storage | 351 763 | 1 774 324 | 2 126 087 | 16.5 | 83.5 | 20 | 12 338 | 36 862 | 49 200 | 25.1 | 74.9 | 33 |
| I | Accommodation and food service activities | 848 808 | 687 125 | 1 535 933 | 55.3 | 44.7 | 124 | 90 910 | 62 385 | 153 295 | 59.3 | 40.7 | 146 |
| J | Information and communication | 274 022 | 454 676 | 728 698 | 37.6 | 62.4 | 60 | 24 636 | 27 205 | 51 841 | 47.5 | 52.5 | 91 |
| K | Financial and insurance activities | 466 203 | 410 989 | 877 192 | 53.1 | 46.9 | 113 | 26 488 | 21 657 | 48 145 | 55.0 | 45.0 | 122 |
| L | Real estate activities | 50 684 | 59 559 | 110 243 | 46.0 | 54.0 | 85 | 3 713 | 5 988 | 9 701 | 38.3 | 61.7 | 62 |
| M | Professional, scientific and technical activities | 380 485 | 423 853 | 804 338 | 47.3 | 52.7 | 90 | 19 658 | 42 660 | 62 318 | 31.5 | 68.5 | 46 |
| N | Administrative and support service activities | 1 565 874 | 2 264 680 | 3 830 554 | 40.9 | 59.1 | 69 | 14 755 | 48 644 | 63 399 | 23.3 | 76.7 | 30 |
| O | Public administration and defence, compulsory social security | 4 126 354 | 3 299 132 | 7 425 486 | 55.6 | 44.4 | 125 | 55 390 | 129 652 | 185 042 | 29.9 | 70.1 | 43 |
| P | Education | 1 711 688 | 815 888 | 2 527 576 | 67.7 | 32.3 | 210 | 136 077 | 91 611 | 227 688 | 59.8 | 40.2 | 149 |
| Q | Human health and social work activities | 1 359 024 | 493 015 | 1 852 039 | 73.4 | 26.6 | 276 | 65 961 | 40 673 | 106 634 | 61.9 | 38.1 | 162 |
| R | Arts, entertainment and recreation | 85 596 | 123 920 | 209 516 | 40.9 | 59.1 | 69 | 8 144 | 14 532 | 22 676 | 35.9 | 64.1 | 56 |
| S | Other service activities | 667 353 | 522 279 | 1 189 632 | 56.1 | 43.9 | 128 | 46 920 | 55 152 | 102 072 | 46.0 | 54.0 | 85 |
| U | Activities of extraterritorial organization and bodies | 950 | 912 | 1 862 | 51.0 | 49.0 | 104 | 98 | 127 | 225 | 43.6 | 56.4 | 77 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Directorate of Surveys, Central Registry of Companies of Brazil, and National Economic Census (CNE) of Ecuador.

[a] Refers to employed persons receiving a wage permanently or temporarily.

[b] Classification according to the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, which both countries use.

**Table A.10**

**Ecuador: managers or owners of companies by sex and economic activity, 2010**

*(Numbers of persons and percentages)*

| Economic activity [a] | | Numbers of persons | | | Percentages | | Number of female managers or owners for every 100 male managers or owners |
|---|---|---|---|---|---|---|---|
| Section | Name | Women | Men | Total | Women | Men | |
| A | Agriculture, forestry and fishing | 271 | 716 | 987 | 27.5 | 72.5 | 38 |
| B | Mining and quarrying | 15 | 136 | 151 | 9.9 | 90.1 | 11 |
| C | Manufacturing | 11 802 | 36 065 | 47 867 | 24.7 | 75.3 | 33 |
| D | Electricity, gas, steam and air conditioning supply | 33 | 240 | 273 | 12.1 | 87.9 | 14 |
| E | Water supply, sewerage, waste management and remediation activities | 63 | 268 | 331 | 19.0 | 81.0 | 24 |
| F | Construction | 202 | 1 348 | 1 550 | 13.0 | 87.0 | 15 |
| G | Wholesale and retail trade, repair of motor vehicles and motorcycles | 148 569 | 121 182 | 269 751 | 55.1 | 44.9 | 123 |
| H | Transportation and storage | 1 054 | 4 174 | 5 228 | 20.2 | 79.8 | 25 |
| I | Accommodation and food service activities | 32 666 | 19 149 | 51 815 | 63.0 | 37.0 | 171 |
| J | Information and communication | 9 266 | 10 495 | 19 761 | 46.9 | 53.1 | 88 |
| K | Financial and insurance activities | 1 095 | 2 271 | 3 366 | 32.5 | 67.5 | 48 |
| L | Real estate activities | 535 | 1 171 | 1 706 | 31.4 | 68.6 | 46 |
| M | Professional, scientific and technical activities | 2 942 | 10 382 | 13 324 | 22.1 | 77.9 | 28 |
| N | Administrative and support service activities | 2 400 | 3 417 | 5 817 | 41.3 | 58.7 | 70 |
| O | Public administration and defence, compulsory social security | 749 | 3 260 | 4 009 | 18.7 | 81.3 | 23 |
| P | Education | 7 374 | 5 707 | 13 081 | 56.4 | 43.6 | 129 |
| Q | Human health and social work activities | 6 606 | 9 303 | 15 909 | 41.5 | 58.5 | 71 |
| R | Arts, entertainment and recreation | 1 698 | 3 928 | 5 626 | 30.2 | 69.8 | 43 |
| S | Other service activities | 17 078 | 22 553 | 39 631 | 43.1 | 56.9 | 76 |
| U | Activities of extraterritorial organization and bodies | 7 | 27 | 34 | 20.6 | 79.4 | 26 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the National Economic Census (CNE) of Ecuador.
[a] Classification according to the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4.

**Table A.11**

**Latin America (18 countries): open unemployment [a] in urban areas by sex, 1990, 2002 and latest data available**

*(Percentages, annual average rate)*

| Country | Sex | Selected years | | |
|---|---|---|---|---|
| | | 1990 [b] | 2002 [c] | Latest data available [d] |
| Argentina [e] | **Women** | **6.4** | **18.0** | **8.5** |
| | Men | 5.7 | 17.8 | 6.2 |
| | Both sexes | 5.9 | 17.9 | 7.2 |
| Bolivia (Plurinational State of) [f] | **Women** | **9.1** | **7.9** | **6.2** |
| | Men | 9.5 | 5.2 | 3.6 |
| | Both sexes | 9.4 | 6.4 | 4.8 |
| Brazil | **Women** | **3.9** | **13.0** | **9.8** |
| | Men | 4.8 | 8.4 | 5.5 |
| | Both sexes | 4.5 | 10.4 | 7.4 |
| Chile | **Women** | **9.7** | **12.4** | **9.6** |
| | Men | 8.1 | 8.5 | 6.6 |
| | Both sexes | 8.7 | 10.1 | 7.8 |
| Colombia [g] | **Women** | **13.0** | **20.2** | **14.8** |
| | Men | 6.7 | 14.6 | 10.0 |
| | Both sexes | 9.3 | 17.1 | 12.2 |
| Costa Rica | **Women** | **6.2** | **7.7** | **9.7** |
| | Men | 4.9 | 6.2 | 6.3 |
| | Both sexes | 5.3 | 6.8 | 7.7 |
| Dominican Republic | **Women** | **...** | **10.5** | **8.7** |
| | Men | ... | 5.4 | 5.7 |
| | Both sexes | ... | 7.5 | 7.0 |
| Ecuador | **Women** | **9.2** | **13.9** | **6.1** |
| | Men | 4.2 | 5.8 | 4.3 |
| | Both sexes | 6.1 | 9.1 | 5.1 |
| El Salvador | **Women** | **...** | **5.0** | **5.1** |
| | Men | ... | 8.8 | 8.3 |
| | Both sexes | ... | 7.0 | 6.8 |
| Guatemala | **Women** | **3.8** | **7.0** | **3.1** |
| | Men | 3.3 | 5.2 | 2.4 |
| | Both sexes | 3.5 | 6.0 | 2.7 |
| Honduras | **Women** | **5.9** | **5.7** | **7.2** |
| | Men | 7.6 | 6.3 | 5.9 |
| | Both sexes | 6.9 | 6.0 | 6.5 |
| Mexico | **Women** | **3.1** | **2.6** | **4.3** |
| | Men | 3.4 | 3.9 | 7.6 |
| | Both sexes | 3.3 | 3.4 | 6.3 |
| Nicaragua | **Women** | **...** | **11.7** | **7.3** |
| | Men | ... | 13.1 | 9.2 |
| | Both sexes | ... | 12.5 | 8.4 |
| Panama | **Women** | **22.8** | **19.8** | **5.4** |
| | Men | 17.9 | 14.0 | 5.3 |
| | Both sexes | 20.0 | 16.5 | 5.4 |
| Paraguay [h] | **Women** | **6.5** | **10.7** | **8.3** |
| | Men | 6.2 | 9.7 | 4.9 |
| | Both sexes | 6.3 | 10.2 | 6.4 |
| Peru [i] | **Women** | **...** | **7.6** | **5.2** |
| | Men | ... | 6.8 | 4.5 |
| | Both sexes | ... | 7.2 | 4.8 |
| Uruguay | **Women** | **11.1** | **21.1** | **7.8** |
| | Men | 7.3 | 13.4 | 4.9 |
| | Both sexes | 8.9 | 16.9 | 6.3 |
| Venezuela (Bolivarian Republic of) [j] | **Women** | **8.4** | **18.8** | **9.1** |
| | Men | 11.2 | 14.4 | 7.0 |
| | Both sexes | 10.2 | 16.2 | 7.8 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Population aged 15 years and over.

[b] Data for 1990, except for Guatemala, Mexico and Plurinational State of Bolivia, where they refer to 1989, and Colombia and Panama, where they refer to 1991.

[c] Data for 2002, except for El Salvador, Nicaragua, Paraguay and Peru, where they refer to 2001, and Chile, where they refer to 2003.

[d] Data for 2011, except for Guatemala, where they refer to 2006; Nicaragua and Plurinational State of Bolivia, where they refer to 2009, and El Salvador, Honduras and Mexico, where they refer to 2010.

[e] Data for 1990 refer to the metropolitan area, those for 2002 to 32 urban agglomerations and the latest data available (2011) to 31 urban agglomerations.

[f] Data for 1990 refer to Cochabamba, El Alto, La Paz, Oruro, Potosí, Santa Cruz, Sucre, Tarija and Trinidad.

[g] From 2002 on, the figures for urban and rural areas are not strictly comparable with those for earlier years, owing to changes in the survey sample design.

[h] Data for 1990 refer to the metropolitan area of Asunción.

[i] From 2004 on, the figures are not strictly comparable with those for earlier years, owing to methodological changes.

[j] From 1998 on, the survey sample design does not allow urban-rural breakdown. The figures therefore refer to the national total.

## 2. Education, research and development

**Table A.12**

**Latin America (18 countries): population [a] by sex and number of years of schooling, national total, 1990, 2002 and latest data available**

*(Percentages)*

| Country and number of years of schooling | Women | | | Men | | | Both sexes | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1990 [b] | 2002 [c] | Latest data available [d] | 1990 [b] | 2002 [c] | Latest data available [d] | 1990 [b] | 2002 [c] | Latest data available [d] |
| **Argentina** [e] | | | | | | | | | |
| 0-5 years | 17.3 | 10.2 | 7.4 | 13.7 | 9.3 | 6.6 | 15.6 | 9.8 | 7.0 |
| 6-9 years | ... | 36.5 | 25.0 | ... | 40.0 | 26.2 | ... | 38.1 | 25.6 |
| 10-12 years | 67.8 | 31.5 | 37.0 | 70.4 | 31.1 | 41.4 | 69.1 | 31.3 | 39.1 |
| 13 years and over | 14.9 | 21.7 | 30.6 | 15.9 | 19.6 | 25.7 | 15.3 | 20.7 | 28.3 |
| **Bolivia (Plurinational State of)** [f] | | | | | | | | | |
| 0-5 years | 35.7 | 47.0 | 37.2 | 22.1 | 34.7 | 26.3 | 29.4 | 41.1 | 31.9 |
| 6-9 years | 18.4 | 19.2 | 17.4 | 21.0 | 23.2 | 19.5 | 19.6 | 21.2 | 18.4 |
| 10-12 years | 29.4 | 20.6 | 25.6 | 31.9 | 26.8 | 32.7 | 30.6 | 23.6 | 29.1 |
| 13 years and over | 16.5 | 13.2 | 19.7 | 25.0 | 15.3 | 21.6 | 20.4 | 14.2 | 20.6 |
| **Brazil** | | | | | | | | | |
| 0-5 years | 61.3 | 45.0 | 33.5 | 62.3 | 47.2 | 35.8 | 61.8 | 46.0 | 34.6 |
| 6-9 years | 18.7 | 23.1 | 21.1 | 19.1 | 24.4 | 23.6 | 18.9 | 23.7 | 22.3 |
| 10-12 years | 14.0 | 23.6 | 31.6 | 12.3 | 21.0 | 29.6 | 13.2 | 22.3 | 30.6 |
| 13 years and over | 6.0 | 8.3 | 13.8 | 6.2 | 7.4 | 11.0 | 6.1 | 7.9 | 12.5 |
| **Chile** | | | | | | | | | |
| 0-5 years | 21.8 | 14.9 | 13.2 | 19.7 | 12.6 | 11.1 | 20.8 | 13.8 | 12.2 |
| 6-9 years | 32.0 | 26.4 | 23.6 | 32.1 | 27.0 | 24.4 | 32.1 | 26.7 | 24.0 |
| 10-12 years | 31.7 | 39.0 | 41.2 | 32.2 | 39.0 | 41.8 | 31.9 | 39.0 | 41.5 |
| 13 years and over | 14.5 | 19.7 | 21.9 | 16.0 | 21.3 | 22.8 | 15.2 | 20.5 | 22.4 |
| **Colombia** [g] | | | | | | | | | |
| 0-5 years | 52.6 | 42.4 | 35.0 | 52.9 | 43.5 | 36.4 | 52.7 | 43.0 | 35.7 |
| 6-9 years | 22.1 | 19.6 | 18.0 | 21.7 | 19.2 | 18.9 | 21.9 | 19.4 | 18.4 |
| 10-12 years | 17.6 | 26.4 | 29.1 | 16.3 | 25.3 | 28.5 | 17.0 | 25.9 | 28.8 |
| 13 years and over | 7.8 | 11.6 | 17.9 | 9.1 | 11.9 | 16.3 | 8.4 | 11.7 | 17.1 |
| **Costa Rica** | | | | | | | | | |
| 0-5 years | 30.4 | 21.6 | 16.5 | 29.7 | 20.7 | 16.3 | 30.0 | 21.2 | 16.4 |
| 6-9 years | 44.5 | 45.2 | 43.8 | 45.7 | 47.7 | 47.1 | 45.1 | 46.4 | 45.4 |
| 10-12 years | 16.7 | 18.9 | 21.9 | 15.7 | 17.1 | 20.0 | 16.2 | 18.0 | 20.9 |
| 13 years and over | 8.4 | 14.3 | 17.9 | 8.9 | 14.4 | 16.6 | 8.6 | 14.4 | 17.3 |
| **Dominican Republic** | | | | | | | | | |
| 0-5 years | ... | 34.6 | 27.4 | ... | 36.6 | 29.8 | ... | 35.6 | 28.6 |
| 6-9 years | ... | 27.7 | 24.5 | ... | 29.9 | 28.6 | ... | 28.8 | 26.5 |
| 10-12 years | ... | 23.6 | 28.9 | ... | 21.0 | 28.7 | ... | 22.3 | 28.8 |
| 13 years and over | ... | 14.2 | 19.2 | ... | 12.5 | 13.0 | ... | 13.3 | 16.1 |
| **Ecuador** [h] | | | | | | | | | |
| 0-5 years | 16.5 | 14.2 | 41.6 | 13.6 | 12.0 | 40.3 | 15.1 | 13.1 | 41.0 |
| 6-9 years | 42.9 | 36.7 | 13.0 | 45.5 | 38.6 | 13.6 | 44.1 | 37.6 | 13.3 |
| 10-12 years | 27.2 | 28.2 | 26.3 | 24.0 | 26.9 | 28.6 | 25.6 | 27.5 | 27.4 |
| 13 years and over | 13.4 | 20.9 | 19.1 | 16.9 | 22.5 | 17.4 | 15.1 | 21.7 | 18.3 |
| **El Salvador** | | | | | | | | | |
| 0-5 years | ... | 47.3 | 41.0 | ... | 40.3 | 35.0 | ... | 44.1 | 38.3 |
| 6-9 years | ... | 26.7 | 28.9 | ... | 32.0 | 33.6 | ... | 29.1 | 31.1 |
| 10-12 years | ... | 17.0 | 19.3 | ... | 17.8 | 20.9 | ... | 17.4 | 20.1 |
| 13 years and over | ... | 9.0 | 10.7 | ... | 9.9 | 10.4 | ... | 9.4 | 10.6 |
| **Guatemala** | | | | | | | | | |
| 0-5 years | 75.0 | 61.6 | 58.7 | 68.3 | 51.0 | 49.6 | 71.8 | 56.6 | 54.6 |
| 6-9 years | 16.3 | 22.5 | 24.1 | 21.8 | 30.9 | 30.8 | 19.0 | 26.5 | 27.2 |
| 10-12 years | 6.8 | 12.2 | 12.6 | 6.5 | 11.6 | 13.1 | 6.6 | 11.9 | 12.8 |
| 13 years and over | 1.8 | 3.6 | 4.6 | 3.4 | 6.5 | 6.5 | 2.6 | 5.0 | 5.5 |

Table A.12 (concluded)

| Country and number of years of schooling | Women | | | Men | | | Both sexes | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1990 [b] | 2002 [c] | Latest data available [d] | 1990 [b] | 2002 [c] | Latest data available [d] | 1990 [b] | 2002 [c] | Latest data available [d] |
| **Honduras** | | | | | | | | | |
| 0-5 years | 58.4 | 46.3 | 37.8 | 59.5 | 49.0 | 39.6 | 58.9 | 47.5 | 38.6 |
| 6-9 years | 29.6 | 36.1 | 36.5 | 29.7 | 36.4 | 39.4 | 29.7 | 36.2 | 37.9 |
| 10-12 years | 9.3 | 12.4 | 19.2 | 7.5 | 9.5 | 14.6 | 8.4 | 11.0 | 17.0 |
| 13 years and over | 2.7 | 5.2 | 6.5 | 3.3 | 5.2 | 6.5 | 3.0 | 5.2 | 6.5 |
| **Mexico** | | | | | | | | | |
| 0-5 years | 40.4 | 30.1 | 22.7 | 35.1 | 26.4 | 19.4 | 37.9 | 28.3 | 21.1 |
| 6-9 years | 45.4 | 40.3 | 42.0 | 42.8 | 41.5 | 43.6 | 44.2 | 40.9 | 42.8 |
| 10-12 years | 8.8 | 19.6 | 20.0 | 11.2 | 18.3 | 19.9 | 10.0 | 19.0 | 20.0 |
| 13 years and over | 5.3 | 10.0 | 15.2 | 10.9 | 13.8 | 17.1 | 8.0 | 11.8 | 16.1 |
| **Nicaragua** | | | | | | | | | |
| 0-5 years | ... | 48.5 | 40.2 | ... | 50.9 | 41.1 | ... | 49.7 | 40.7 |
| 6-9 years | ... | 30.6 | 32.3 | ... | 31.8 | 34.7 | ... | 31.2 | 33.5 |
| 10-12 years | ... | 15.1 | 17.5 | ... | 11.1 | 15.0 | ... | 13.2 | 16.3 |
| 13 years and over | ... | 5.8 | 10.0 | ... | 6.2 | 9.2 | ... | 6.0 | 9.6 |
| **Panama** [i] | | | | | | | | | |
| 0-5 years | 12.0 | 17.7 | 14.3 | 10.8 | 17.9 | 13.9 | 11.4 | 17.8 | 14.1 |
| 6-9 years | 36.0 | 37.3 | 32.8 | 38.8 | 43.5 | 39.2 | 37.3 | 40.4 | 35.9 |
| 10-12 years | 31.6 | 25.9 | 28.3 | 30.5 | 24.3 | 29.1 | 31.1 | 25.1 | 28.7 |
| 13 years and over | 20.4 | 19.2 | 24.6 | 20.0 | 14.4 | 17.8 | 20.2 | 16.8 | 21.3 |
| **Paraguay** [j] | | | | | | | | | |
| 0-5 years | 20.3 | 36.2 | 21.6 | 15.6 | 34.0 | 20.9 | 18.2 | 35.1 | 21.2 |
| 6-9 years | 41.0 | 35.9 | 36.0 | 40.6 | 38.7 | 35.4 | 40.8 | 37.3 | 35.7 |
| 10-12 years | 28.1 | 17.6 | 25.2 | 30.4 | 18.2 | 29.2 | 29.2 | 17.9 | 27.2 |
| 13 years and over | 10.6 | 10.3 | 17.3 | 13.3 | 9.1 | 14.5 | 11.9 | 9.7 | 15.9 |
| **Peru** [k] | | | | | | | | | |
| 0-5 years | ... | 38.6 | 30.9 | ... | 27.9 | 21.3 | ... | 33.4 | 26.2 |
| 6-9 years | ... | 19.9 | 16.4 | ... | 22.9 | 18.0 | ... | 21.3 | 17.2 |
| 10-12 years | ... | 24.5 | 26.5 | ... | 29.6 | 32.0 | ... | 27.0 | 29.1 |
| 13 years and over | ... | 17.1 | 26.2 | ... | 19.6 | 28.7 | ... | 18.3 | 27.5 |
| **Uruguay** [h] | | | | | | | | | |
| 0-5 years | 22.4 | 13.9 | 10.4 | 21.1 | 13.3 | 10.8 | 21.8 | 13.6 | 10.6 |
| 6-9 years | 44.7 | 43.0 | 41.8 | 47.9 | 47.1 | 47.4 | 46.1 | 44.9 | 44.4 |
| 10-12 years | 22.3 | 25.1 | 24.0 | 21.7 | 25.0 | 24.2 | 22.0 | 25.0 | 24.1 |
| 13 years and over | 10.6 | 18.0 | 23.8 | 9.3 | 14.6 | 17.6 | 10.0 | 16.4 | 20.9 |
| **Venezuela (Bolivarian Republic of)** [l] | | | | | | | | | |
| 0-5 years | 25.7 | 19.1 | 11.9 | 24.2 | 19.7 | 14.0 | 24.9 | 19.4 | 12.9 |
| 6-9 years | 46.1 | 41.0 | 30.8 | 49.1 | 45.4 | 36.4 | 47.6 | 43.2 | 33.6 |
| 10-12 years | 18.0 | 22.4 | 27.0 | 15.8 | 20.8 | 28.0 | 16.9 | 21.6 | 27.5 |
| 13 years and over | 10.2 | 17.6 | 30.3 | 10.9 | 14.0 | 21.6 | 10.6 | 15.8 | 26.0 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Population aged 15 years and over.
[b] Data for 1990, except for Guatemala, Mexico and Plurinational State of Bolivia, where they refer to 1989, and Colombia and Panama, where they refer to 1991.
[c] Data for 2002, except for El Salvador, Nicaragua, Paraguay and Peru, where they refer to 2001, and Chile, where they refer to 2003.
[d] Data for 2011, except for Guatemala, where they refer to 2006; Nicaragua and Plurinational State of Bolivia, where they refer to 2009, and El Salvador, Honduras and Mexico, where they refer to 2010.
[e] Data for 1990 refer to the metropolitan area, those for 2002 to 32 urban agglomerations and the latest data available (2011) to 31 urban agglomerations.
[f] Data for 1989 refer to urban aras of Cochabamba, El Alto, La Paz, Oruro, Potosí, Santa Cruz, Sucre, Tarija and Trinidad.
[g] From 2002 on, the figures for urban and rural areas are not strictly comparable with those for earlier years, owing to changes in the survey sample design.
[h] Data for 1990 and 2002 refer to urban areas.
[i] Data for 1991 refer to urban areas.
[j] Data for 1990 refer to the metropolitan area of Asunción.
[k] From 2004 on, the figures are not strictly comparable with those for earlier years, owing to methodological changes.
[l] From 1998 on, the survey sample design does not allow urban-rural breakdown. The figures therefore refer to the national total.

**Table A.13**

**Latin America (18 countries): average years of schooling of the economically active population,[a] by sex, national total, 1990, 2002 and latest data available**

*(Number of years)*

| Country | Sex | Years | | |
|---|---|---|---|---|
| | | 1990 [b] | 2002 [c] | Latest data available [d] |
| Argentina [e] | **Women** | **10.1** | **11.2** | **12.6** |
| | Men | 9.2 | 10.1 | 11.4 |
| | Both sexes | 9.5 | 10.6 | 11.9 |
| Bolivia (Plurinational State of) [f] | **Women** | **8.1** | **6.5** | **8.0** |
| | Men | 9.7 | 7.9 | 9.2 |
| | Both sexes | 9.0 | 7.3 | 8.7 |
| Brazil | **Women** | **6.5** | **7.6** | **9.2** |
| | Men | 5.4 | 6.7 | 7.9 |
| | Both sexes | 5.8 | 7.1 | 8.5 |
| Chile | **Women** | **10.4** | **11.4** | **11.7** |
| | Men | 9.3 | 10.6 | 11.1 |
| | Both sexes | 9.7 | 10.9 | 11.3 |
| Colombia [g] | **Women** | **7.3** | **8.6** | **9.5** |
| | Men | 6.3 | 7.5 | 8.3 |
| | Both sexes | 6.7 | 7.9 | 8.8 |
| Costa Rica | **Women** | **8.4** | **9.3** | **10.0** |
| | Men | 6.9 | 8.0 | 8.6 |
| | Both sexes | 7.3 | 8.4 | 9.1 |
| Dominican Republic | **Women** | **...** | **9.5** | **10.0** |
| | Men | ... | 7.4 | 8.2 |
| | Both sexes | ... | 8.1 | 8.9 |
| Ecuador [h] | **Women** | **9.3** | **10.0** | **9.3** |
| | Men | 8.8 | 9.8 | 8.7 |
| | Both sexes | 8.9 | 9.9 | 8.9 |
| El Salvador | **Women** | **...** | **7.2** | **7.9** |
| | Men | ... | 6.6 | 7.2 |
| | Both sexes | ... | 6.9 | 7.5 |
| Guatemala | **Women** | **4.5** | **4.9** | **5.3** |
| | Men | 3.6 | 5.1 | 5.4 |
| | Both sexes | 3.8 | 5.1 | 5.4 |
| Honduras | **Women** | **5.5** | **6.5** | **7.2** |
| | Men | 4.2 | 5.0 | 5.9 |
| | Both sexes | 4.5 | 5.5 | 6.4 |
| Mexico | **Women** | **7.0** | **8.2** | **9.5** |
| | Men | 6.5 | 7.9 | 8.9 |
| | Both sexes | 6.6 | 8.0 | 9.1 |
| Nicaragua | **Women** | **...** | **6.5** | **7.6** |
| | Men | ... | 5.2 | 6.2 |
| | Both sexes | ... | 5.7 | 6.7 |
| Panama [i] | **Women** | **11.1** | **10.8** | **11.7** |
| | Men | 10.2 | 8.7 | 9.7 |
| | Both sexes | 10.6 | 9.4 | 10.4 |
| Paraguay [j] | **Women** | **9.1** | **7.7** | **9.5** |
| | Men | 9.2 | 7.1 | 8.9 |
| | Both sexes | 9.1 | 7.3 | 9.2 |
| Peru [k] | **Women** | **...** | **7.7** | **9.1** |
| | Men | ... | 8.8 | 10.0 |
| | Both sexes | ... | 8.3 | 9.6 |
| Uruguay [h] | **Women** | **9.1** | **10.4** | **10.8** |
| | Men | 8.2 | 9.3 | 9.5 |
| | Both sexes | 8.6 | 9.8 | 10.1 |
| Venezuela (Bolivarian Republic of) [l] | **Women** | **8.8** | **9.4** | **11.3** |
| | Men | 7.4 | 8.1 | 9.3 |
| | Both sexes | 7.9 | 8.6 | 10.1 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Population aged 15 years and over.

[b] Data for 1990, except for Guatemala, Mexico and Plurinational State of Bolivia, where they refer to 1989, and Colombia and Panama, where they refer to 1991.

[c] Data for 2002, except for El Salvador, Nicaragua, Paraguay and Peru, where they refer to 2001, and Chile, where they refer to 2003.

[d] Data for 2011, except for Guatemala, where they refer to 2006; Nicaragua and Plurinational State of Bolivia, where they refer to 2009, and El Salvador, Honduras and Mexico, where they refer to 2010.

[e] Data for 1990 refer to the metropolitan area, those for 2002 to 32 urban agglomerations and the latest data available (2011) to 31 urban agglomerations.

[f] Data for 1989 refer to urban aras of Cochabamba, El Alto, La Paz, Oruro, Potosí, Santa Cruz, Sucre, Tarija and Trinidad.

[g] From 2002 on, the figures for urban and rural areas are not strictly comparable with those for earlier years, owing to changes in the survey sample design.

[h] Data for 1990 and 2002 refer to urban areas.

[i] Data for 1991 refer to urban areas.

[j] Data for 1990 refer to the metropolitan area of Asunción.

[k] From 2004 on, the figures are not strictly comparable with those for earlier years, owing to methodological changes.

[l] From 1998 on, the survey sample design does not allow urban-rural breakdown. The figures therefore refer to the national total.

**Table A.14**
**Latin America and the Caribbean (9 countries): proportion of researchers who are women, [a] by discipline, around 2009 [b]**
*(Percentages)*

| Country | Women | | |
|---|---|---|---|
| | All disciplines | Engineering and technology | Natural sciences |
| Brazil | 48.0 | 48.0 | 48.0 |
| Chile | 27.5 | 19.0 | 26.5 |
| Colombia | 37.2 | 19.7 | 35.8 |
| Costa Rica | 43.3 | 30.1 | 33.6 |
| El Salvador | 36.8 | 16.8 | 35.4 |
| Guatemala | 35.2 | 45.1 | 45.5 |
| Trinidad and Tobago | 52.9 | 22.2 | 58.2 |
| Uruguay | 52.3 | 35.5 | 56.3 |
| Venezuela (Bolivarian Republic of) | 54.5 | 40.4 | 35.1 |

**Source**: UNESCO Institute for Statistics, December 2012, and UNESCO eAtlas of Research and Experimental Development, Women in Science.
[a] The figures refer to the percentage of the total number of persons employed, either full time or part time, in research and development.
[b] Data for 2009, except for Brazil, where they refer to 2007; Chile and Uruguay, where they refer to 2008; and El Salvador, where they refer to 2010.

## 3. Poverty and gender

**Table A.15**

**Latin America (18 countries): femininity index [a] of poor and non-poor households in urban areas, by age group, census rounds of 1990, 2002 and 2010**

*(Percentages)*

| Country | Age group | Poor | | | Non-poor | | |
|---|---|---|---|---|---|---|---|
| | | Census rounds | | | Census rounds | | |
| | | 1990 | 2002 [b] | 2010 [c] | 1990 | 2002 [b] | 2010 [c] |
| Argentina [d] | 20-59 years | 105,4 | 106,9 | 132,5 | 99,0 | 95,8 | 98,0 |
| | 60 years and over | 86,9 | 90,3 | 85,6 | 103,1 | 103,8 | 100,5 |
| Bolivia (Plurinational State of) | 20-59 years | 105,2 | 106,1 | 113,3 | 95,6 | 95,0 | 95,3 |
| | 60 years and over | 97,6 | 108,5 | 107,8 | 102,9 | 96,0 | 98,0 |
| Brazil | 20-59 years | 107,5 | 106,2 | 114,3 | 96,4 | 97,6 | 97,1 |
| | 60 years and over | 102,4 | 87,6 | 92,7 | 98,7 | 102,3 | 100,5 |
| Chile | 20-59 years | 105,3 | 108,5 | 128,5 | 97,4 | 98,4 | 97,3 |
| | 60 years and over | 99,0 | 94,2 | 98,8 | 100,3 | 100,5 | 100,1 |
| Colombia [e] | 20-59 years | 105,2 | 106,6 | 115,2 | 95,8 | 96,0 | 94,9 |
| | 60 years and over | 107,6 | 99,8 | 99,8 | 95,3 | 100,1 | 100,1 |
| Costa Rica | 20-59 years | 115,4 | 126,1 | 120,2 | 96,7 | 96,7 | 97,2 |
| | 60 years and over | 101,1 | 118,2 | 75,9 | 99,6 | 95,7 | 103,3 |
| Dominican Republic | 20-59 years | ... | 117,9 | 128,7 | ... | 91,3 | 88,6 |
| | 60 years and over | ... | 127,2 | 119,7 | ... | 84,7 | 88,6 |
| Ecuador | 20-59 years | 104,0 | 108,8 | 109,7 | 95,2 | 94,0 | 95,9 |
| | 60 years and over | 115,0 | 107,3 | 111,9 | 85,7 | 94,7 | 96,0 |
| El Salvador | 20-59 years | ... | 111,4 | 107,8 | ... | 94,8 | 96,1 |
| | 60 years and over | ... | 95,4 | 102,4 | ... | 102,7 | 98,7 |
| Guatemala [f] | 20-59 years | 107,2 | 108,6 | 102,8 | 94,2 | 95,2 | 98,6 |
| | 60 years and over | 98,5 | 96,7 | 98,5 | 101,1 | 102,0 | 100,6 |
| Honduras | 20-59 years | 104,1 | 102,6 | 108,1 | 93,4 | 96,3 | 93,0 |
| | 60 years and over | 104,0 | 100,4 | 101,0 | 93,0 | 99,3 | 98,8 |
| Mexico | 20-59 years | 105,3 | 111,1 | 107,2 | 97,2 | 96,2 | 97,4 |
| | 60 years and over | 102,1 | 110,9 | 94,6 | 99,1 | 96,5 | 101,6 |
| Nicaragua | 20-59 years | ... | 106,3 | 107,9 | ... | 92,4 | 93,5 |
| | 60 years and over | ... | 93,8 | 105,7 | ... | 110,5 | 95,0 |
| Panama | 20-59 years | 114,7 | 115,9 | 137,2 | 95,4 | 96,2 | 96,2 |
| | 60 years and over | 93,3 | 125,7 | 133,1 | 101,6 | 95,8 | 96,4 |
| Paraguay | 20-59 years | 105,6 | 104,3 | 110,1 | 96,8 | 97,0 | 94,1 |
| | 60 years and over | 131,8 | 93,2 | 102,3 | 86,1 | 104,9 | 98,1 |
| Peru [g] | 20-59 years | ... | 105,9 | 110,6 | ... | 96,8 | 98,2 |
| | 60 years and over | ... | 97,7 | 108,3 | ... | 101,0 | 98,7 |
| Uruguay | 20-59 years | 103,8 | 103,9 | 119,0 | 99,4 | 99,4 | 98,8 |
| | 60 years and over | 85,6 | 83,1 | 92,4 | 101,1 | 100,7 | 100,1 |
| Venezuela (Bolivarian Republic of) [h] | 20-59 years | 119,3 | 107,5 | 120,8 | 92,4 | 95,0 | 94,9 |
| | 60 years and over | 113,8 | 107,6 | 109,3 | 92,7 | 95,0 | 98,1 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Excludes live-in domestic workers and their family members. The index is constructed as the ratio between the poverty rates for women and the rates for men, multiplied by 100. The femininity index of poverty for persons aged between 20 and 59 years shows that, in all countries in the region, the rate of poverty for women is higher than for men (over 100). Even though it does not fully capture all gender disparities, this index clearly illustrates the link that exists in the region between being poor and being a woman.

[b] Refers to household surveys conducted by the countries that year, with the exception of Chile, which conducted its survey in 2000, and El Salvador, Nicaragua, Paraguay and Peru, which conducted theirs in 2001.

[c] Refers to household surveys conducted by the countries that year, with the exceptions of Brazil and Chile, which conducted their surveys in 2009.

[d] Data for 1990 refer to the metropolitan area, those for 2002 to 32 urban agglomerations, and those to the 2010 round to 31 urban agglomerations.

[e] From 2002 on, the figures for urban and rural areas are not strictly comparable with those for earlier years, owing to changes in the survey sample design.

[f] The latest information available is from the 2008 census round, conducted in 2006.

[g] From 2004 on, the figures are not strictly comparable with those for earlier years, owing to methodological changes.

[h] From 1998 on, the survey sample design does not allow urban-rural breakdown. Figures therefore refer to the national total.

## Table A.16

**Latin America (18 countries): persons without their own income [a] by sex and geographical area, census rounds of 1990, 2002 and 2010**

*(Percentages)*

| Country | Women | | | | | | | | | Men | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Urban | | | Rural | | | National | | | Urban | | | Rural | | | National | | |
| | Census rounds | | | Census rounds | | | Census rounds | | | Census rounds | | | Census rounds | | | Census rounds | | |
| | 1990 | 2002 [b] | 2010 [c] | 1990 | 2002 [b] | 2010 [c] | 1990 | 2002 [b] | 2010 [c] | 1990 | 2002 [b] | 2010 [c] | 1990 | 2002 [b] | 2010 [c] | 1990 | 2002 [b] | 2010 [c] |
| Argentina [d] | 44.1 | 38.1 | 23.9 | ... | ... | ... | ... | ... | ... | 6.8 | 15.9 | 10.0 | ... | ... | ... | ... | ... | ... |
| Bolivia (Plurinational State of) [e] | 52.5 | 35.8 | 30.6 | ... | 70.7 | 52.2 | ... | 48.6 | 37.8 | 22.3 | 11.1 | 8.3 | ... | 22.0 | 16.5 | ... | 15.5 | 11.1 |
| Brazil | 40.6 | 37.9 | 29.9 | 62.4 | 48.8 | 34.8 | 45.0 | 39.4 | 30.5 | 8.1 | 18.1 | 15.8 | 13.8 | 20.5 | 20.0 | 9.4 | 18.5 | 16.5 |
| Chile | 44.5 | 41.0 | 29.4 | 57.8 | 50.3 | 31.2 | 46.6 | 42.2 | 29.7 | 10.1 | 12.4 | 13.2 | 10.9 | 11.9 | 10.5 | 10.2 | 12.3 | 12.9 |
| Colombia [f] | 47.6 | 40.7 | 29.6 | 64.2 | 60.7 | 47.0 | 54.0 | 45.2 | 33.1 | 10.2 | 16.6 | 12.9 | 13.0 | 15.3 | 11.8 | 11.4 | 16.2 | 12.6 |
| Costa Rica | 49.5 | 38.6 | 30.3 | 69.5 | 57.7 | 45.2 | 60.2 | 45.9 | 35.5 | 10.1 | 9.0 | 9.7 | 12.8 | 11.0 | 11.6 | 11.7 | 9.8 | 10.5 |
| Dominican Republic | ... | 35.9 | 29.1 | ... | 54.4 | 40.7 | ... | 41.8 | 32.6 | ... | 14.4 | 14.4 | ... | 13.2 | 13.9 | ... | 14.0 | 14.2 |
| Ecuador [g] | 53.4 | 37.8 | 34.5 | ... | ... | 32.9 | ... | ... | 34.0 | 9.8 | 9.1 | 10.0 | ... | ... | 13.5 | ... | ... | 11.2 |
| El Salvador | ... | 40.2 | 30.7 | ... | 60.4 | 43.9 | ... | 47.7 | 35.3 | ... | 21.7 | 13.5 | ... | 30.9 | 18.7 | ... | 25.5 | 15.5 |
| Guatemala [h] | 52.3 | 34.0 | 31.2 | 81.1 | 49.8 | 52.0 | 70.0 | 43.5 | 41.2 | 10.3 | 11.0 | 7.4 | 16.0 | 11.3 | 10.4 | 14.0 | 11.2 | 8.9 |
| Honduras | 56.3 | 52.2 | 32.0 | 79.4 | 75.5 | 49.3 | 69.0 | 63.8 | 40.8 | 19.1 | 18.7 | 14.6 | 22.2 | 18.6 | 17.2 | 21.0 | 18.7 | 16.1 |
| Mexico | 59.0 | 45.7 | 34.2 | 73.1 | 41.2 | 32.3 | 64.0 | 44.1 | 33.5 | 13.0 | 9.6 | 9.1 | 19.7 | 15.3 | 11.0 | 15.5 | 11.7 | 9.8 |
| Nicaragua | ... | 53.1 | 50.0 | ... | 74.2 | 72.9 | ... | 61.0 | 59.0 | ... | 24.9 | 24.8 | ... | 28.4 | 29.0 | ... | 26.4 | 26.7 |
| Panama | 42.1 | 27.2 | 27.0 | ... | 39.5 | 36.3 | ... | 31.3 | 29.9 | 16.7 | 11.2 | 6.9 | ... | 10.8 | 8.3 | ... | 11.0 | 7.4 |
| Paraguay [i] | 41.5 | 33.8 | 32.6 | ... | 47.2 | 44.2 | ... | 39.1 | 36.9 | 9.0 | 15.3 | 13.4 | ... | 20.3 | 20.9 | ... | 17.7 | 16.5 |
| Peru [j] | ... | 36.8 | 27.6 | ... | 53.3 | 36.8 | ... | 41.8 | 30.4 | ... | 21.8 | 13.8 | ... | 19.8 | 16.4 | ... | 21.2 | 14.7 |
| Uruguay [g] | 27.5 | 23.9 | 15.5 | ... | ... | 21.2 | ... | ... | 15.7 | 6.3 | 9.2 | 5.9 | ... | ... | 4.0 | ... | ... | 5.8 |
| Venezuela (Bolivarian Republic of) [k] | 61.3 | ... | ... | 81.9 | ... | ... | 64.1 | 43.4 | 35.8 | 22.2 | ... | ... | 20.6 | ... | ... | 21.9 | 17.9 | 11.5 |
| **Latin America [l]** | **48.0** | **38.4** | **30.4** | **71.2** | **56.0** | **41.4** | **59.1** | **45.3** | **34.4** | **12.4** | **14.7** | **12.3** | **16.1** | **17.8** | **14.9** | **14.4** | **16.5** | **13.3** |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Population aged 15 years and over not in education and not receiving monetary income.

[b] Refers to household surveys conducted by the countries that year, with the exception of Chile, which conducted its survey in 2000, and El Salvador, Nicaragua, Paraguay and Peru, which conducted theirs in 2001.

[c] Refers to household surveys conducted by the countries that year, with the exceptions of Brazil and Chile, which conducted their surveys in 2009.

[d] Data refer to urban areas only: those for 1990 refer to the metropolitan area, those for 2002 to 32 urban agglomerations, and those to the 2010 round to 31 urban agglomerations.

[e] Data from the 1990 census round refer to urban areas of Cochabamba, El Alto, La Paz, Oruro, Potosí, Santa Cruz, Sucre, Tarija and Trinidad.

[f] From 2002 on, the figures for urban and rural areas are not strictly comparable with those for earlier years, owing to changes in the survey sample design.

[g] The information from the 1990 and 2002 census rounds refers to urban areas.

[h] The latest information available is from the 2008 census round, conducted in 2006.

[i] Data from the 1990 census round refer to the metropolitan area of Asunción.

[j] From 2004 on, the figures are not strictly comparable with those for earlier years, owing to methodological changes.

[k] From 1998 on, the survey sample design does not allow urban-rural breakdown.

[l] Simple average. Includes only the data available from each round; does not include Guatemala in the 2010 census round.

**Table A.17**

**Latin America (18 countries): working-age population by employment status, sex and poverty status, around 2011**

*(Percentages)*

| Employment status | Women | | | | Men | | | |
|---|---|---|---|---|---|---|---|---|
| | Indigent | Non-indigent poor | Vulnerable non-poor [a] | Rest [b] | Indigent | Non-indigent poor | Vulnerable non-poor [a] | Rest [b] |
| Employed | 29.4 | 37.4 | 42.8 | 53.8 | 66.3 | 72.8 | 74.6 | 76.5 |
| Unemployed | 6.3 | 5.7 | 5.0 | 3.1 | 10.1 | 6.6 | 4.9 | 3.0 |
| Inactive | 64.3 | 56.9 | 52.2 | 43.1 | 23.6 | 20.6 | 20.5 | 20.5 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America 2012* (LC/G.2557-P), Santiago, Chile, 2013. United Nations publication, Sales No.: E.13.II.G.6.

[a] Persons whose income is between 1 and 1.5 times the value of the poverty line.

[b] Persons who are neither poor nor vulnerable.

**Table A.18**

**Latin America (18 countries): employed population by occupational category, sex and poverty status, around 2011**

*(Percentages)*

| Occupational category | Women | | | | Men | | | |
|---|---|---|---|---|---|---|---|---|
| | Indigent | Non-indigent poor | Vulnerable non-poor [a] | Rest [b] | Indigent | Non-indigent poor | Vulnerable non-poor [a] | Rest [b] |
| Employer | 3.0 | 2.0 | 2.5 | 3.8 | 5.4 | 3.8 | 4.2 | 7.1 |
| Employee | 18.7 | 34.2 | 44.7 | 61.2 | 37.5 | 59.3 | 64.9 | 65.8 |
| Domestic worker | 12.1 | 16.2 | 14.5 | 9.3 | 0.3 | 0.6 | 0.6 | 0.5 |
| Own-account worker | 40.8 | 34.4 | 30.1 | 21.6 | 44.6 | 31.6 | 27.0 | 24.9 |
| Unpaid worker | 25.4 | 13.1 | 8.2 | 4.1 | 12.3 | 4.6 | 3.2 | 1.8 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America 2012* (LC/G.2557-P), Santiago, Chile, 2013. United Nations publication, Sales No.: E.13.II.G.6.

[a] Persons whose income is between 1 and 1.5 times the value of the poverty line.

[b] Persons who are neither poor nor vulnerable.

**Table A.19**

**Latin America (18 countries): women's average wage as a proportion of men's average wage, [a] urban areas, 1990, 2002 and latest data available**

*(Percentages)*

| Country | Years | | |
|---|---|---|---|
| | 1990 [b] | 2002 [c] | Latest data available [d] |
| Argentina [e] | 82.6 | 84.7 | 89.2 |
| Bolivia (Plurinational State of) | 71.3 | 72.5 | 79.7 |
| Brazil | 67.0 | 78.2 | 81.6 |
| Chile | 70.2 | 80.6 | 80.1 |
| Colombia [f] | 77.3 | 91.0 | 90.3 |
| Costa Rica | 78.7 | 82.6 | 94.6 |
| Dominican Republic | ... | 86.9 | 90.0 |
| Ecuador | 64.9 | 82.3 | 95.6 |
| El Salvador | ... | 87.2 | 94.7 |
| Guatemala | 85.3 | 82.1 | 83.4 |
| Honduras | 73.2 | 82.9 | 94.4 |
| Mexico | 76.0 | 79.9 | 79.3 |
| Nicaragua | ... | 83.1 | 89.7 |
| Panama | 82.2 | 89.1 | 89.0 |
| Paraguay | 63.4 | 81.2 | 85.8 |
| Peru [g] | ... | 79.7 | 74.9 |
| Uruguay | 73.2 | 83.6 | 83.6 |
| Venezuela (Bolivarian Republic of) [h] | 80.3 | 98.2 | 98.0 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] The information refers to the wage-earning population aged between 20 and 49 years, working 35 hours or more per week.

[b] Data for 1990, except for Guatemala, Mexico and Plurinational State of Bolivia, where they refer to 1989, and Colombia and Panama, where they refer to 1991.

[c] Data for 2002, except for El Salvador, Nicaragua, Paraguay and Peru, where they refer to 2001, and Chile, where they refer to 2003.

[d] Data for 2011, except for Guatemala, where they refer to 2006; Nicaragua and Plurinational State of Bolivia, where they refer to 2009, and El Salvador, Honduras and Mexico, where they refer to 2010.

[e] Data for 1990 refer to the metropolitan area, those for 2002 to 32 urban agglomerations and the latest available data (2011) to 31 urban agglomerations.

[f] From 2002 on, the figures for urban and rural areas are not strictly comparable with those for earlier years, owing to changes in the survey sample design.

[g] From 2004 on, the figures are not strictly comparable with those for earlier years, owing to methodological changes.

[h] From 1998 on, the survey sample design does not allow urban-rural breakdown. Figures therefore refer to the national total.

## 4. Internet access and use

**Table A.20**

**Latin America (10 countries): Internet access in the household, by sex, national total, two latest years available**

*(Percentages)*

| Country | Years | Women | Men | Total |
|---|---|---|---|---|
| Brazil | 2005 | 14.3 | 13.9 | 14.1 |
| | 2009 | 28.6 | 27.6 | 28.1 |
| Chile | 2006 | 19.1 | 19.9 | 19.5 |
| | 2009 | 29.5 | 30.7 | 30.1 |
| Costa Rica | 2005 | 10.4 | 10.6 | 10.5 |
| | 2008 | 15.5 | 15.3 | 15.4 |
| Ecuador [a] | 2008 | 6.7 | 6.6 | 6.6 |
| El Salvador | 2007 | 3.0 | 2.8 | 2.9 |
| | 2010 | 8.7 | 7.9 | 8.3 |
| Honduras | 2007 | 2.5 | 2.3 | 2.4 |
| | 2010 | 8.9 | 7.5 | 8.2 |
| Mexico | 2007 | 12.2 | 12.9 | 12.5 |
| | 2009 | 19.9 | 20.4 | 20.1 |
| Paraguay | 2007 | 3.4 | 3.1 | 3.3 |
| | 2010 | 16.0 | 14.7 | 15.3 |
| Peru | 2007 | 6.5 | 6.1 | 6.3 |
| | 2010 | 13.6 | 13.2 | 13.4 |
| Uruguay | 2008 | 24.7 | 25.1 | 24.9 |
| | 2010 | 38.3 | 38.4 | 38.3 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Owing to changes in the questionnaire, it was not possible to construct the data for 2010.

**Table A.21**

**Latin America (10 countries): Internet use [a] by sex, national total, two latest years available**

*(Percentages)*

| Country | Years | Women | Men | Total |
|---|---|---|---|---|
| Brazil | 2005 | 18.2 | 19.7 | 18.9 |
| | 2009 | 35.2 | 35.6 | 35.4 |
| Chile | 2006 | 34.8 | 39.3 | 37.0 |
| | 2009 | 39.3 | 44.0 | 41.6 |
| Costa Rica | 2005 | 20.8 | 23.4 | 22.1 |
| | 2008 | 30.7 | 33.8 | 32.2 |
| Ecuador | 2008 | 22.8 | 24.2 | 23.5 |
| | 2010 | 28.2 | 29.9 | 29.0 |
| El Salvador | 2007 | 4.8 | 5.6 | 5.2 |
| | 2010 | 13.4 | 15.0 | 14.1 |
| Honduras | 2007 | 9.6 | 9.1 | 9.4 |
| | 2010 | 12.8 | 12.0 | 12.4 |
| Mexico | 2007 | 20.4 | 24.2 | 22.2 |
| | 2009 | 27.0 | 29.8 | 28.3 |
| Paraguay | 2007 | 9.8 | 9.8 | 9.8 |
| | 2010 | 17.0 | 17.9 | 17.5 |
| Peru | 2007 | 23.1 | 29.9 | 26.4 |
| | 2010 | 26.0 | 34.1 | 30.0 |
| Uruguay | 2008 | 35.1 | 37.5 | 36.2 |
| | 2010 | 45.8 | 47.9 | 46.8 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Rates of use refer to the percentage of people who report using the Internet from any point of access, be it the home, place of work, educational establishment, community centre, or elsewhere.

**Table A.22**

**Latin America (9 countries): Internet use by employment status and sex, national total, latest data available [a]**

*(Percentages)*

| Country | Employment status [b] | Women | Men | Total |
|---|---|---|---|---|
| Brazil | Employed | 39.2 | 39.0 | 39.1 |
| | Unemployed | 41.5 | 41.3 | 41.4 |
| | Student | 35.7 | 37.6 | 36.6 |
| Chile | Employed | 46.0 | 40.3 | 42.5 |
| | Unemployed | 44.6 | 43.8 | 44.2 |
| | Student | 65.7 | 66.0 | 65.9 |
| Costa Rica | Employed | 41.5 | 32.9 | 36.1 |
| | Unemployed | 36.9 | 23.0 | 29.5 |
| | Student | 66.7 | 67.8 | 67.3 |
| Ecuador | Employed | 29.7 | 23.5 | 25.9 |
| | Unemployed | 38.7 | 42.2 | 40.4 |
| | Student | 62.2 | 62.0 | 62.1 |
| El Salvador | Employed | 15.1 | 12.7 | 13.7 |
| | Unemployed | 23.1 | 12.5 | 15.6 |
| | Student | 23.8 | 22.7 | 23.3 |
| Honduras | Employed | 16.0 | 10.3 | 12.4 |
| | Unemployed | 36.3 | 23.6 | 29.7 |
| | Student | 19.1 | 16.7 | 17.9 |
| Paraguay | Employed | 21.1 | 17.9 | 19.1 |
| | Unemployed | 27.5 | 26.5 | 27.0 |
| | Student | 34.6 | 35.4 | 35.0 |
| Peru [c] | Employed | 24.3 | 30.8 | 27.9 |
| | Unemployed | 30.5 | 51.6 | 37.8 |
| Uruguay | Employed | 52.0 | 44.8 | 48.0 |
| | Unemployed | 46.6 | 51.4 | 48.5 |
| | Student | 88.3 | 87.7 | 88.0 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Rates of use refer to the percentage of people who report using the Internet from any point of access, be it the home, place of work, educational establishment, community centre, or elsewhere. The latest available data refer to 2010 for Ecuador, El Salvador, Honduras, Paraguay, Peru and Uruguay; to 2009 for Brazil and Chile; and to 2008 for Costa Rica.

[b] The percentages of employed and unemployed are calculated on the basis of the population aged 15 years and over. The category "student" refers to the population aged 5 years and over.

[c] Data on students unavailable.

**Table A.23**

**Latin America (9 countries): Internet use by occupational category and sex, national total, latest data available [a]**

*(Percentages)*

| Country | Occupational category | Women | Men | Total |
|---|---|---|---|---|
| Brazil | Employer | 43.3 | 47.0 | 45.2 |
| | Own-account workers | 36.5 | 33.6 | 35.0 |
| | Wage-earner | 42.5 | 41.9 | 42.2 |
| Chile | Employer | 58.5 | 62.8 | 61.6 |
| | Own-account workers | 31.8 | 28.1 | 29.5 |
| | Wage-earner | 55.8 | 42.1 | 47.1 |
| Costa Rica | Employer | 49.0 | 35.5 | 38.4 |
| | Own-account workers | 20.4 | 17.1 | 18.3 |
| | Wage-earner | 46.6 | 36.7 | 40.5 |
| Ecuador | Employer | 33.7 | 35.1 | 34.8 |
| | Own-account workers | 13.2 | 11.3 | 12.0 |
| | Wage-earner | 52.5 | 29.0 | 36.3 |
| El Salvador | Employer | 11.8 | 22.0 | 18.9 |
| | Own-account workers | 5.4 | 6.1 | 5.8 |
| | Wage-earner | 26.7 | 15.2 | 18.9 |
| Honduras [b] | Own-account workers | 25.5 | 37.7 | 30.1 |
| | Wage-earner | 6.2 | 5.2 | 5.6 |
| Paraguay | Employer | 35.8 | 23.0 | 25.8 |
| | Own-account workers | 8.3 | 7.1 | 7.6 |
| | Wage-earner | 45.3 | 25.7 | 31.1 |
| Peru | Employer | 17.4 | 25.1 | 23.1 |
| | Own-account workers | 11.7 | 16.0 | 14.0 |
| | Wage-earner | 50.7 | 43.1 | 45.8 |
| Uruguay | Employer | 63.7 | 59.0 | 60.3 |
| | Own-account workers | 37.7 | 31.6 | 34.1 |
| | Wage-earner | 56.0 | 47.9 | 51.7 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Rates of use refer to the percentage of people who report using the Internet from any point of access, be it the home, place of work, educational establishment, community centre, or other place. The latest available data refer to 2010 for Ecuador, El Salvador, Honduras, Paraguay, Peru and Uruguay; to 2009 for Brazil and Chile; and to 2008 for Costa Rica.

[b] Data on employers unavailable.

**Table A.24**

**Latin America (9 countries): Internet use, by income quintile and sex, national total, latest data available [a]**

*(Percentages)*

| Country | Sex | Income quintile [b] | | | | |
|---|---|---|---|---|---|---|
| | | I | II | III | IV | V |
| Brazil | **Women** | **17.5** | **27.4** | **32.5** | **44.8** | **62.8** |
| | Men | 16.3 | 26.4 | 32.8 | 45.4 | 66.8 |
| | Total | 16.9 | 26.9 | 32.7 | 45.1 | 64.7 |
| Chile | **Women** | **19.9** | **28.2** | **37.9** | **48.0** | **67.8** |
| | Men | 23.1 | 31.0 | 40.3 | 51.7 | 73.1 |
| | Total | 21.3 | 29.5 | 39.1 | 49.9 | 70.5 |
| Costa Rica | **Women** | **3.8** | **8.4** | **12.7** | **23.8** | **56.7** |
| | Men | 4.3 | 10.0 | 18.1 | 29.7 | 65.1 |
| | Total | 4.1 | 9.6 | 16.4 | 27.9 | 63.0 |
| Ecuador | **Women** | **13.5** | **17.8** | **21.1** | **30.2** | **49.5** |
| | Men | 15.0 | 18.1 | 22.2 | 32.0 | 51.0 |
| | Total | 14.2 | 17.9 | 21.6 | 31.1 | 50.3 |
| El Salvador | **Women** | **2.3** | **4.7** | **7.2** | **14.4** | **29.3** |
| | Men | 2.6 | 4.8 | 8.4 | 15.3 | 33.6 |
| | Total | 2.4 | 4.8 | 7.7 | 14.8 | 31.3 |
| Honduras | **Women** | **1.8** | **2.9** | **7.6** | **16.2** | **34.8** |
| | Men | 1.2 | 2.1 | 7.4 | 15.1 | 36.4 |
| | Total | 1.5 | 2.5 | 7.5 | 15.7 | 35.6 |
| Paraguay | **Women** | **1.5** | **5.6** | **13.6** | **22.2** | **40.1** |
| | Men | 1.5 | 5.9 | 11.9 | 23.9 | 44.8 |
| | Total | 1.5 | 5.8 | 12.7 | 23.1 | 42.4 |
| Peru | **Women** | **5.7** | **14.3** | **22.6** | **31.6** | **46.6** |
| | Men | 9.8 | 19.0 | 30.9 | 40.1 | 57.9 |
| | Total | 7.7 | 16.6 | 26.7 | 35.8 | 52.3 |
| Uruguay | **Women** | **34.5** | **38.4** | **42.1** | **49.4** | **63.0** |
| | Men | 35.4 | 37.7 | 43.8 | 52.2 | 70.3 |
| | Total | 34.9 | 38.1 | 42.9 | 50.7 | 66.3 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Rates of use refer to the percentage of people who report using the Internet from any point of access, be it the home, place of work, educational establishment, community centre, or elsewhere. The latest available data refer to 2010 for Ecuador, El Salvador, Honduras, Paraguay, Peru and Uruguay; to 2009 for Brazil and Chile; and to 2008 for Costa Rica.

[b] Income quintiles acording to household survey data. Includes total income, i.e., autonomous income and transfers.

**Table A.25**

**Latin America (9 countries): Internet use by level of education and sex, national total, latest data available [a]**

*(Percentages)*

| Country | Educational level [b] | Women | Men | Total |
|---|---|---|---|---|
| Brazil | Primary | 23.7 | 26.4 | 25.1 |
| | Secondary | 59.0 | 64.4 | 61.5 |
| | Post-secondary | 92.7 | 94.1 | 93.4 |
| | Tertiary | 86.5 | 90.0 | 88.0 |
| Chile | Primary | 20.9 | 25.3 | 23.1 |
| | Secondary | 39.7 | 44.4 | 41.9 |
| | Post-secondary | 82.0 | 83.6 | 82.8 |
| | Tertiary | 76.1 | 81.1 | 78.5 |
| Costa Rica | Primary | 11.4 | 14.8 | 13.1 |
| | Secondary | 39.1 | 44.9 | 41.9 |
| | Post-secondary | 73.0 | 78.3 | 75.5 |
| | Tertiary | 80.3 | 88.0 | 84.1 |
| Ecuador | Primary | 0.9 | 1.3 | 1.1 |
| | Secondary | 7.9 | 8.6 | 8.3 |
| | Post-secondary | 37.3 | 39.8 | 38.6 |
| | Tertiary | 74.7 | 75.0 | 74.8 |
| El Salvador | Primary | 3.8 | 4.7 | 4.2 |
| | Secondary | 20.8 | 22.5 | 21.6 |
| | Post-secondary | 59.1 | 65.2 | 61.7 |
| | Tertiary | 70.3 | 75.5 | 72.9 |
| Honduras | Primary | 0.5 | 0.7 | 0.6 |
| | Secondary | 2.7 | 3.1 | 2.9 |
| | Post-secondary | 30.4 | 31.5 | 30.9 |
| | Tertiary | 71.2 | 74.0 | 72.4 |
| Paraguay | Primary | 3.7 | 4.6 | 4.2 |
| | Secondary | 26.7 | 27.5 | 27.2 |
| | Post-secondary | 57.2 | 65.4 | 60.7 |
| | Tertiary | 73.7 | 75.7 | 74.7 |
| Peru | Primary | 10.2 | 15.2 | 12.6 |
| | Secondary | 31.9 | 36.7 | 34.5 |
| | Post-secondary | 58.4 | 66.8 | 62.7 |
| | Tertiary | 70.4 | 77.2 | 73.9 |
| Uruguay | Primary | 27.8 | 32.6 | 30.1 |
| | Secondary | 49.6 | 53.4 | 51.5 |
| | Post-secondary | 79.4 | 85.3 | 81.6 |
| | Tertiary | 91.8 | 90.6 | 91.2 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Rates of use refer to the percentage of people who report using the Internet from any point of access, be it the home, place of work, educational establishment, community centre, or elsewhere. The latest available data refer to 2010 for Ecuador, El Salvador, Honduras, Paraguay, Peru and Uruguay; to 2009 for Brazil and Chile; and to 2008 for Costa Rica.

[b] Educational levels are: primary: primary education or first cycle of secondary education; secondary: secondary education or second cycle of primary and middle education; post-secondary: non-tertiary or incomplete tertiary post-secondary education not culminating in an academic qualification; and tertiary: tertiary education.

**Table A.26**

**Latin America (9 countries): Internet use by sex and geographical area, latest data available [a]**

*(Percentages)*

| Country | Women | | Men | | Total | |
|---|---|---|---|---|---|---|
| | Urban | Rural | Urban | Rural | Urban | Rural |
| Brazil | 42.0 | 12.9 | 44.0 | 11.6 | 42.9 | 12.2 |
| Chile | 42.3 | 17.9 | 48.1 | 17.7 | 45.0 | 17.8 |
| Costa Rica | 39.1 | 17.8 | 44.4 | 18.9 | 41.6 | 18.4 |
| Ecuador | 36.1 | 11.9 | 39.3 | 12.1 | 37.6 | 12.0 |
| El Salvador | 18.9 | 3.4 | 22.0 | 3.9 | 20.3 | 3.6 |
| Honduras | 22.9 | 3.5 | 23.7 | 3.0 | 23.3 | 3.2 |
| Paraguay | 25.1 | 4.2 | 28.4 | 3.7 | 26.7 | 3.9 |
| Peru | 35.8 | 6.7 | 46.4 | 11.4 | 40.9 | 9.1 |
| Uruguay [b] | 45.8 | ... | 47.9 | ... | 46.8 | ... |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Rates of use refer to the percentage of people who report using the Internet from any point of access, be it the home, place of work, educational establishment, community centre, or elsewhere. The latest available data refer to 2010 for Ecuador, El Salvador, Honduras, Paraguay, Peru and Uruguay (survey in urban areas only); to 2009 for Brazil and Chile; and to 2008 for Costa Rica.

[b] Data for rural areas not available.

**Table A.27**

**Latin America (9 countries): Internet use by age group and sex, national total, latest data available [a]**

*(Percentages)*

| Country | Age group | Women | Men | Total |
|---|---|---|---|---|
| Brazil | 5-14 years | 32.0 | 30.1 | 31.0 |
| | 15-24 years | 67.4 | 64.7 | 66.0 |
| | 25-34 years | 49.9 | 49.1 | 49.5 |
| | 35-44 years | 37.2 | 36.5 | 36.8 |
| | 45-54 years | 27.2 | 29.4 | 28.2 |
| | 55-64 years | 15.5 | 19.7 | 17.4 |
| | 65 years and over | 4.3 | 7.4 | 5.6 |
| Chile | 5-14 years | 54.6 | 55.3 | 55.0 |
| | 15-24 years | 69.1 | 70.2 | 69.6 |
| | 25-34 years | 50.2 | 53.3 | 51.7 |
| | 35-44 years | 33.7 | 37.3 | 35.4 |
| | 45-54 years | 26.1 | 28.9 | 27.4 |
| | 55-64 years | 17.8 | 23.4 | 20.4 |
| | 65 years and over | 5.1 | 9.1 | 6.8 |
| Costa Rica | 5-14 years | 29.5 | 30.4 | 30.0 |
| | 15-24 years | 54.4 | 52.1 | 53.2 |
| | 25-34 years | 39.5 | 41.2 | 40.3 |
| | 35-44 years | 24.3 | 30.1 | 27.0 |
| | 45-54 years | 20.0 | 25.1 | 22.4 |
| | 55-64 years | 10.3 | 18.6 | 14.3 |
| | 65 years and over | 3.1 | 7.1 | 5.0 |
| Ecuador | 5-14 years | 30.3 | 29.7 | 30.0 |
| | 15-24 years | 57.2 | 53.7 | 55.3 |
| | 25-34 years | 35.8 | 37.2 | 36.5 |
| | 35-44 years | 20.6 | 21.9 | 21.2 |
| | 45-54 years | 15.1 | 17.8 | 16.4 |
| | 55-64 years | 10.7 | 15.6 | 13.1 |
| | 65 years and over | 2.1 | 4.1 | 3.1 |
| El Salvador | 5-14 years | 9.4 | 8.6 | 9.0 |
| | 15-24 years | 29.0 | 29.8 | 29.4 |
| | 25-34 years | 14.8 | 16.6 | 15.6 |
| | 35-44 years | 10.2 | 12.6 | 11.3 |
| | 45-54 years | 7.9 | 11.2 | 9.3 |
| | 55-64 years | 3.7 | 8.3 | 5.7 |
| | 65 years and over | 1.6 | 2.0 | 1.8 |
| Honduras | 5-14 years | 6.8 | 6.7 | 6.7 |
| | 15-24 years | 26.7 | 22.4 | 24.5 |
| | 25-34 years | 17.0 | 13.7 | 15.5 |
| | 35-44 years | 10.7 | 13.2 | 11.8 |
| | 45-54 years | 5.7 | 9.3 | 7.3 |
| | 55-64 years | 4.6 | 3.4 | 4.1 |
| | 65 years and over | 0.9 | 1.8 | 1.3 |
| Paraguay | 5-14 years | 10.9 | 11.1 | 11.0 |
| | 15-24 years | 32.3 | 31.5 | 31.9 |
| | 25-34 years | 25.2 | 23.3 | 24.2 |
| | 35-44 years | 14.0 | 18.8 | 16.4 |
| | 45-54 years | 11.4 | 13.7 | 12.6 |
| | 55-64 years | 5.5 | 8.6 | 7.1 |
| | 65 years and over | 1.8 | 2.6 | 2.1 |
| Peru | 5-14 years | 26.7 | 33.1 | 30.0 |
| | 15-24 years | 53.2 | 59.5 | 56.4 |
| | 25-34 years | 32.4 | 44.1 | 38.2 |
| | 35-44 years | 19.0 | 27.0 | 22.7 |
| | 45-54 years | 14.4 | 21.6 | 17.8 |
| | 55-64 years | 7.7 | 14.3 | 10.8 |
| | 65 years and over | 1.3 | 4.8 | 2.9 |
| Uruguay | 5-14 years | 73.1 | 72.0 | 72.5 |
| | 15-24 years | 69.7 | 67.2 | 68.4 |
| | 25-34 years | 57.2 | 54.4 | 55.9 |
| | 35-44 years | 48.2 | 46.2 | 47.2 |
| | 45-54 years | 39.3 | 38.5 | 38.9 |
| | 55-64 years | 25.9 | 25.8 | 25.8 |
| | 65 years and over | 7.0 | 10.2 | 8.3 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

[a] Rates of use refer to the percentage of people who report using the Internet from any point of access, be it the home, place of work, educational establishment, community centre, or elsewhere. The latest available data refer to 2010 for Ecuador, El Salvador, Honduras, Paraguay, Peru and Uruguay; to 2009 for Brazil and Chile; and to 2008 for Costa Rica.

## 5. Rural and indigenous women

**Table A.28**

**Latin America and the Caribbean (31 countries): total population projections, by sex, 2012**

*(Thousands of persons and percentages)*

| Country | Thousands of persons | | | Percentages | |
|---|---|---|---|---|---|
| | Women | Men | Both sexes | Women | Men |
| Argentina | 20 984 | 20 088 | 41 072 | 51.1 | 48.9 |
| Bahamas | 179 | 172 | 351 | 51.1 | 48.9 |
| Barbados | 138 | 136 | 275 | 50.4 | 49.6 |
| Belice | 164 | 160 | 324 | 50.7 | 49.3 |
| Bolivia (Plurinational State of) | 5 159 | 5 140 | 10 299 | 50.1 | 49.9 |
| Brazil | 100 868 | 97 555 | 198 423 | 50.8 | 49.2 |
| Chile | 8 824 | 8 630 | 17 454 | 50.6 | 49.4 |
| Colombia | 24 258 | 23 477 | 47 735 | 50.8 | 49.2 |
| Costa Rica | 2 362 | 2 436 | 4 798 | 49.2 | 50.8 |
| Cuba | 5 617 | 5 678 | 11 295 | 49.7 | 50.3 |
| Dominican Republic | 5 079 | 5 085 | 10 164 | 50.0 | 50.0 |
| Ecuador | 7 764 | 7 754 | 15 517 | 50.0 | 50.0 |
| El Salvador | 3 306 | 2 982 | 6 288 | 52.6 | 47.4 |
| Grenada | 53 | 53 | 105 | 49.9 | 50.1 |
| Guatemala | 7 714 | 7 337 | 15 051 | 51.3 | 48.7 |
| Guyana | 377 | 380 | 758 | 49.8 | 50.2 |
| Haiti | 5 132 | 5 003 | 10 135 | 50.6 | 49.4 |
| Honduras | 3 960 | 3 961 | 7 922 | 50.0 | 50.0 |
| Jamaica | 1 402 | 1 359 | 2 761 | 50.8 | 49.2 |
| Mexico | 61 221 | 56 775 | 117 996 | 51.9 | 48.1 |
| Nicaragua | 3 022 | 2 957 | 5 979 | 50.5 | 49.5 |
| Panama | 1 882 | 1 919 | 3 801 | 49.5 | 50.5 |
| Paraguay | 3 309 | 3 366 | 6 675 | 49.6 | 50.4 |
| Peru | 14 937 | 15 011 | 29 948 | 49.9 | 50.1 |
| Puerto Rico | 1 942 | 1 801 | 3 743 | 51.9 | 48.1 |
| Saint Vincent and the Grenadines | 54 | 55 | 109 | 49.5 | 50.5 |
| Saint Lucia | 91 | 86 | 178 | 51.3 | 48.7 |
| Suriname | 266 | 268 | 534 | 49.9 | 50.1 |
| Trinidad and Tobago | 697 | 654 | 1 351 | 51.6 | 48.4 |
| Uruguay | 1 758 | 1 637 | 3 395 | 51.8 | 48.2 |
| Venezuela (Bolivarian Republic of) | 14 925 | 15 017 | 29 943 | 49.8 | 50.2 |
| **Latin America and the Caribbean** | **307 444** | **296 935** | **604 380** | **50.9** | **49.1** |
| **Latin America** | **298 890** | **288 608** | **587 498** | **50.9** | **49.1** |
| **The Caribbean** | **8 555** | **8 327** | **16 881** | **50.7** | **49.3** |

**Source**: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of "Estimaciones y proyecciones de población a largo plazo 1950-2100. Revisión 2012" [online] http://www.eclac.cl/celade/proyecciones/basedatos_BD.htm.

## Table A.29

**Latin America and the Caribbean (20 countries): population projections, by sex and geographical area, 2012**

*(Thousands of persons and percentages)*

| Country | Thousands of persons | | | | | | | | | Percentage share by sex and geographical area | | | | | | Percentage of women with respect to total in geographical area | | Percentage of women with respect to national total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Women | | | Men | | | Both sexes | | | Women | | Men | | Both sexes | | Women | | Women | | |
| | National | Urban | Rural | National | Urban | Rural | National | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural | National |
| Argentina | 20 625 | 19 333 | 1 292 | 19 745 | 18 262 | 1 483 | 40 370 | 37 595 | 2 775 | 93.7 | 6.3 | 92.5 | 7.5 | 93.1 | 6.9 | 51.4 | 46.6 | 45.2 | 3.2 | 51.1 |
| Bolivia (Plurinational State of) | 5 009 | 3 405 | 1 604 | 4 985 | 3 226 | 1 759 | 9 995 | 6 631 | 3 364 | 68.0 | 32.0 | 64.7 | 35.3 | 66.3 | 33.7 | 51.4 | 47.7 | 32.3 | 16.1 | 50.1 |
| Brazil | 99 118 | 85 365 | 13 754 | 96 035 | 80 650 | 15 386 | 195 153 | 166 014 | 29 139 | 86.1 | 13.9 | 84.0 | 16.0 | 85.1 | 14.9 | 51.4 | 47.2 | 41.3 | 7.0 | 50.8 |
| Chile | 8 668 | 7 574 | 1 094 | 8 481 | 7 434 | 1 047 | 17 149 | 15 008 | 2 141 | 87.4 | 12.6 | 87.7 | 12.3 | 87.5 | 12.5 | 50.5 | 51.1 | 43.3 | 6.4 | 50.5 |
| Colombia | 23 593 | 18 937 | 4 656 | 22 855 | 17 503 | 5 352 | 46 448 | 36 440 | 10 009 | 80.3 | 19.7 | 76.6 | 23.4 | 78.5 | 21.5 | 52.0 | 46.5 | 37.7 | 10.0 | 50.8 |
| Costa Rica | 2 297 | 1 532 | 765 | 2 371 | 1 553 | 819 | 4 669 | 3 085 | 1 584 | 66.7 | 33.3 | 65.5 | 34.5 | 66.1 | 33.9 | 49.7 | 48.3 | 33.3 | 16.4 | 49.2 |
| Cuba | 5 618 | 4 421 | 1 197 | 5 681 | 4 324 | 1 357 | 11 298 | 8 744 | 2 554 | 78.7 | 21.3 | 76.1 | 23.9 | 77.4 | 22.6 | 50.6 | 46.9 | 38.3 | 10.6 | 49.7 |
| Dominican Republic | 4 947 | 3 476 | 1 471 | 4 960 | 3 331 | 1 629 | 9 907 | 6 807 | 3 100 | 70.3 | 29.7 | 67.2 | 32.9 | 68.7 | 31.3 | 51.1 | 47.4 | 33.6 | 14.8 | 49.9 |
| Ecuador | 7 511 | 4 931 | 2 580 | 7 507 | 4 830 | 2 678 | 15 018 | 9 760 | 5 258 | 65.6 | 34.4 | 64.3 | 35.7 | 65.0 | 35.0 | 50.5 | 49.1 | 32.2 | 17.2 | 50.0 |
| El Salvador | 3 263 | 2 007 | 1 256 | 2 955 | 1 739 | 1 216 | 6 218 | 3 746 | 2 472 | 61.5 | 38.5 | 58.8 | 41.2 | 60.2 | 39.8 | 53.6 | 50.8 | 28.0 | 20.2 | 52.5 |
| Guatemala | 7 349 | 4 237 | 3 111 | 6 985 | 3 968 | 3 017 | 14 334 | 8 205 | 6 129 | 57.7 | 42.3 | 56.8 | 43.2 | 57.2 | 42.8 | 51.6 | 50.8 | 27.7 | 21.7 | 51.3 |
| Haiti | 5 003 | 2 451 | 2 551 | 4 881 | 2 265 | 2 617 | 9 884 | 4 716 | 5 168 | 49.0 | 51.0 | 46.4 | 53.6 | 47.7 | 52.3 | 52.0 | 49.4 | 22.9 | 25.8 | 50.6 |
| Honduras | 3 811 | 1 992 | 1 819 | 3 809 | 1 856 | 1 953 | 7 619 | 3 848 | 3 771 | 52.3 | 47.7 | 48.7 | 51.3 | 50.5 | 49.5 | 51.8 | 48.2 | 24.4 | 23.9 | 50.0 |
| Mexico | 59 799 | 46 835 | 12 964 | 55 502 | 43 052 | 12 450 | 115 301 | 89 887 | 25 414 | 78.3 | 21.7 | 77.6 | 22.4 | 78.0 | 22.0 | 52.1 | 51.0 | 37.3 | 11.2 | 51.9 |
| Nicaragua | 2 936 | 1 751 | 1 186 | 2 877 | 1 641 | 1 235 | 5 813 | 3 392 | 2 421 | 59.6 | 40.4 | 57.1 | 42.9 | 58.3 | 41.7 | 51.6 | 49.0 | 28.2 | 20.4 | 50.5 |
| Panama | 1 819 | 1 274 | 545 | 1 857 | 1 252 | 605 | 3 676 | 2 526 | 1 150 | 70.0 | 30.0 | 67.4 | 32.6 | 68.7 | 31.3 | 50.4 | 47.4 | 34.1 | 14.8 | 49.5 |
| Paraguay | 3 199 | 2 035 | 1 164 | 3 259 | 1 933 | 1 326 | 6 458 | 3 968 | 2 491 | 63.6 | 36.4 | 59.3 | 40.7 | 61.4 | 38.6 | 51.3 | 46.8 | 29.9 | 18.0 | 49.5 |
| Peru | 14 601 | 10 756 | 3 845 | 14 671 | 10 702 | 3 969 | 29 272 | 21 458 | 7 814 | 73.7 | 26.3 | 72.9 | 27.1 | 73.3 | 26.7 | 50.1 | 49.2 | 36.6 | 13.1 | 49.9 |
| Uruguay | 1 747 | 1 636 | 111 | 1 627 | 1 482 | 144 | 3 373 | 3 118 | 256 | 93.6 | 6.4 | 91.1 | 8.9 | 92.4 | 7.6 | 52.5 | 43.5 | 43.9 | 3.3 | 51.8 |
| Venezuela (Bolivarian Republic of) | 14 466 | 13 709 | 756 | 14 573 | 13 467 | 1 106 | 29 039 | 27 176 | 1 863 | 94.8 | 5.2 | 92.4 | 7.6 | 93.6 | 6.4 | 50.4 | 40.6 | 46.4 | 2.6 | 49.8 |
| **Latin America and the Caribbean** | **295 378** | **237 656** | **57 722** | **285 615** | **224 467** | **61 149** | **580 993** | **462 123** | **118 871** | **80.5** | **19.5** | **78.6** | **21.4** | **79.5** | **20.5** | **51.4** | **48.6** | **38.6** | **9.9** | **50.8** |

**Source**: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of "Estimaciones y proyecciones de población a largo plazo 1950-2100. Revisión 2012" [online] http://www.eclac.cl/celade/proyecciones/basedatos_BD.htm.

## Table A.30

**Latin America (9 countries): total population, by ethnicity and sex, latest data available** [a]

*(Number of persons and percentages)*

| Country | Total population | | | Indigenous population | | | Indigenous population as a percentage of the total population by sex | | Indigenous population as a percentage of the total population of the same sex | | Indigenous population by sex as a percentage of the total indigenous population | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Total | Women | Men | Total | Women | Men | Women | Men | Women | Men |
| Brazil | 97 333 754 | 93 385 994 | 190 719 748 | 410 584 | 410 917 | 821 501 | 0.2 | 0.2 | 0.4 | 0.4 | 50.0 | 50.0 |
| Colombia | 20 706 760 | 19 900 648 | 40 607 408 | 689 577 | 703 046 | 1 392 623 | 1.7 | 1.7 | 3.3 | 3.5 | 49.5 | 50.5 |
| Costa Rica | 2 195 649 | 2 106 063 | 4 301 712 | 51 709 | 52 434 | 104 143 | 1.2 | 1.2 | 2.4 | 2.5 | 49.7 | 50.3 |
| Ecuador | 7 305 816 | 7 177 683 | 14 483 499 | 517 797 | 500 379 | 1 018 176 | 3.6 | 3.5 | 7.1 | 7.0 | 50.9 | 49.1 |
| Mexico | 56 924 903 | 54 044 047 | 110 968 950 | 8 683 462 | 8 244 300 | 16 927 762 | 7.8 | 7.4 | 15.3 | 15.3 | 51.3 | 48.7 |
| Nicaragua | 2 524 626 | 2 455 224 | 4 979 850 | 222 049 | 221 798 | 443 847 | 4.5 | 4.5 | 8.8 | 9.0 | 50.0 | 50.0 |
| Panama | 1 692 981 | 1 712 266 | 3 405 247 | 205 098 | 212 444 | 417 542 | 6.0 | 6.2 | 12.1 | 12.4 | 49.1 | 50.9 |
| Peru | 13 693 398 | 13 359 996 | 27 053 394 | 3 256 859 | 3 232 250 | 6 489 109 | 12.0 | 11.9 | 23.8 | 24.2 | 50.2 | 49.8 |
| Uruguay | 1 637 471 | 1 505 174 | 3 142 645 | 87 162 | 72 157 | 159 319 | 2.8 | 2.3 | 5.3 | 4.8 | 54.7 | 45.3 |

**Source**: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of population censuses.

[a] The latest available census data refer to 2011 for Costa Rica and Uruguay; to 2010 for Brazil, Ecuador, Mexico and Panama; to 2007 for Peru; and to 2005 for Colombia and Nicaragua.

**Table A.31**

**Latin America (9 countries): rate of economic participation by sex and ethnicity, latest data available [a]**

*(Percentages)*

| Country | Women | | Men | |
|---|---|---|---|---|
| | Indigenous | Non-indigenous | Indigenous | Non-indigenous |
| Brazil | 47.2 | 53.7 | 65.7 | 74.4 |
| Colombia | 20.9 | 36.1 | 57.8 | 70.3 |
| Costa Rica | 27.4 | 36.3 | 67.3 | 72.2 |
| Ecuador | 54.6 | 42.9 | 78.8 | 78.0 |
| Mexico | 31.5 | 38.0 | 78.9 | 77.4 |
| Nicaragua | 28.7 | 33.4 | 72.7 | 75.8 |
| Panama | 19.3 | 44.4 | 68.7 | 76.8 |
| Peru | 37.5 | 38.8 | 71.6 | 73.7 |
| Uruguay | 53.4 | 50.2 | 73.8 | 71.4 |

**Source**: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of population censuses.

[a] Population aged 15 years and over. The latest available census data refer to 2011 for Costa Rica and Uruguay; to 2010 for Brazil, Ecuador, Mexico and Panama; to 2007 for Peru; and to 2005 for Colombia and Nicaragua.

**Table A.32**

**Latin America (8 countries): employed population by occupational category, sex and ethnicity, latest data available [a]**

*(Percentages)*

| Country | Occupational category | Women | | Men | |
|---|---|---|---|---|---|
| | | Indigenous | Non-indigenous | Indigenous | Non-indigenous |
| Brazil | Employers | 0.8 | 1.6 | 1.1 | 2.4 |
| | Wage-earners | 67.3 | 78.1 | 64.5 | 71.2 |
| | Own-account workers | 26.6 | 18.0 | 32.0 | 25.6 |
| | Unpaid workers | 5.4 | 2.3 | 2.4 | 0.8 |
| Colombia | Employers | 2.6 | 5.5 | 2.0 | 5.9 |
| | Wage-earners | 68.4 | 81.0 | 60.4 | 73.5 |
| | Own-account workers | 25.5 | 12.7 | 35.7 | 20.0 |
| | Unpaid workers | 3.5 | 0.8 | 2.0 | 0.6 |
| Costa Rica | Employers | 5.5 | 5.1 | 5.5 | 7.4 |
| | Wage-earners | 68.1 | 79.6 | 56.7 | 68.1 |
| | Own-account workers | 23.1 | 14.2 | 35.3 | 23.6 |
| | Unpaid workers | 3.2 | 1.1 | 2.5 | 0.9 |
| Ecuador | Employers | 2.2 | 4.9 | 2.2 | 4.5 |
| | Wage-earners | 29.5 | 64.7 | 43.5 | 67.2 |
| | Own-account workers | 65.5 | 28.7 | 52.5 | 26.9 |
| | Unpaid workers | 2.8 | 1.7 | 1.9 | 1.4 |
| Mexico | Employers | 1.4 | 2.2 | 1.9 | 3.7 |
| | Wage-earners | 58.2 | 71.8 | 57.1 | 70.7 |
| | Own-account workers | 33.4 | 23.5 | 33.4 | 23.3 |
| | Unpaid workers | 6.9 | 2.5 | 7.6 | 2.3 |
| Nicaragua | Employers | 1.0 | 1.1 | 1.1 | 1.6 |
| | Wage-earners | 55.3 | 65.3 | 41.7 | 53.9 |
| | Own-account workers | 41.9 | 32.8 | 54.3 | 42.4 |
| | Unpaid workers | 1.8 | 0.8 | 2.9 | 2.1 |
| Panama | Employers | 0.4 | 0.8 | 0.6 | 1.4 |
| | Wage-earners | 55.2 | 85.2 | 56.4 | 68.9 |
| | Own-account workers | 37.2 | 13.5 | 39.9 | 28.8 |
| | Unpaid workers | 7.1 | 0.5 | 3.1 | 0.8 |
| Peru | Employers | 1.2 | 1.7 | 1.9 | 2.5 |
| | Wage-earners | 36.4 | 59.6 | 38.8 | 52.2 |
| | Own-account workers | 41.6 | 32.1 | 51.0 | 41.2 |
| | Unpaid workers | 20.8 | 6.7 | 8.3 | 4.1 |

**Source**: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of population censuses.

[a] Population aged 15 years and over. The latest available census data refer to 2011 for Costa Rica; to 2010 for Brazil, Ecuador, Mexico and Panama; to 2007 for Peru; and to 2005 for Colombia and Nicaragua.

**Table A.33**

**Latin America (8 countries): employed population by economic sector, sex and ethnicity, latest data available** [a]

*(Percentages)*

| Country | Economic sector | Women | | Men | |
|---|---|---|---|---|---|
| | | Indigenous | Non-indigenous | Indigenous | Non-indigenous |
| Brazil | Primary | 37.6 | 9.9 | 44.7 | 18.1 |
| | Secondary | 9.6 | 11.8 | 21.2 | 29.5 |
| | Tertiary | 52.8 | 78.3 | 34.1 | 52.4 |
| Colombia | Primary | 43.3 | 6.5 | 75.1 | 37.2 |
| | Secondary | 3.8 | 10.0 | 7.6 | 16.1 |
| | Tertiary | 52.9 | 83.5 | 17.3 | 46.7 |
| Costa Rica | Primary | 13.8 | 4.3 | 46.7 | 20.8 |
| | Secondary | 10.7 | 13.4 | 18.7 | 28.1 |
| | Tertiary | 75.5 | 82.3 | 34.6 | 51.1 |
| Ecuador | Primary | 59.6 | 11.0 | 51.0 | 28.6 |
| | Secondary | 7.0 | 12.7 | 24.6 | 25.5 |
| | Tertiary | 33.4 | 76.3 | 24.4 | 45.9 |
| Mexico | Primary | 9.9 | 2.3 | 39.2 | 15.6 |
| | Secondary | 17.4 | 15.8 | 25.5 | 29.9 |
| | Tertiary | 72.7 | 81.9 | 35.3 | 54.5 |
| Nicaragua | Primary | 18.1 | 5.3 | 60.5 | 44.7 |
| | Secondary | 13.5 | 18.1 | 15.6 | 19.6 |
| | Tertiary | 68.4 | 76.6 | 23.9 | 35.7 |
| Panama | Primary | 23.5 | 1.6 | 56.2 | 17.0 |
| | Secondary | 15.7 | 8.1 | 11.6 | 29.0 |
| | Tertiary | 60.8 | 90.3 | 32.2 | 54.0 |
| Peru | Primary | 34.0 | 8.7 | 45.5 | 26.0 |
| | Secondary | 8.4 | 9.9 | 19.9 | 20.5 |
| | Tertiary | 57.6 | 81.4 | 34.6 | 53.5 |

**Source**: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of population censuses.

[a] Population aged 15 years and over. The latest available census data refer to 2011 for Costa Rica; to 2010 for Brazil, Ecuador, Mexico and Panama; to 2007 for Peru; and to 2005 for Colombia and Nicaragua.

## 6. Women in the financial system in Chile

**Table A.34**

**Chile: number of debt holders and total bank debt,[a] by sex, 2002-2012**

*(Number of persons, sums in millions of Chilean pesos and percentages)*

| Years[b] | Number of persons | | | Percentage share | | Total debt in millions of pesos[c] | | | Percentage share | | Average debt in pesos | | Debt owed by women in pesos for every 100 pesos owed by men |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Total | Women | Men | Women | Men | Total | Women | Men | Women | Men | |
| 2002 | 928 511 | 1 645 024 | 2 573 535 | 36.1 | 63.9 | 2 871 673 | 7 981 407 | 10 853 080 | 26.5 | 73.5 | 3 092 772 | 4 851 848 | 63.7 |
| 2003 | 893 434 | 1 590 587 | 2 484 021 | 36.0 | 64.0 | 3 057 253 | 8 464 341 | 11 521 594 | 26.5 | 73.5 | 3 421 913 | 5 321 520 | 64.3 |
| 2004 | 786 053 | 1 382 005 | 2 168 058 | 36.3 | 63.7 | 3 513 349 | 9 610 758 | 13 124 107 | 26.8 | 73.2 | 4 469 608 | 6 954 214 | 64.3 |
| 2005 | 1 361 605 | 2 130 839 | 3 492 444 | 39.0 | 61.0 | 5 733 868 | 13 436 298 | 19 170 166 | 29.9 | 70.1 | 4 211 110 | 6 305 637 | 66.8 |
| 2006 | 1 387 159 | 2 134 398 | 3 521 557 | 39.4 | 60.6 | 6 772 844 | 15 294 948 | 22 067 792 | 30.7 | 69.3 | 4 882 529 | 7 165 931 | 68.1 |
| 2007 | 1 355 423 | 2 087 842 | 3 443 265 | 39.4 | 60.6 | 8 384 300 | 18 183 525 | 26 567 825 | 31.6 | 68.4 | 6 185 744 | 8 709 244 | 71.0 |
| 2008 | 1 814 747 | 2 610 829 | 4 425 576 | 41.0 | 59.0 | 9 995 756 | 21 072 102 | 31 067 858 | 32.2 | 67.8 | 5 508 071 | 8 071 039 | 68.2 |
| 2009 | 1 841 895 | 2 579 059 | 4 420 954 | 41.7 | 58.3 | 10 998 695 | 22 462 339 | 33 461 034 | 32.9 | 67.1 | 5 971 402 | 8 709 510 | 68.6 |
| 2010 | 1 953 039 | 2 680 820 | 4 633 859 | 42.1 | 57.9 | 12 362 860 | 24 931 031 | 37 293 891 | 33.1 | 66.9 | 6 330 063 | 9 299 778 | 68.1 |
| 2011 | 2 116 415 | 2 832 233 | 4 948 648 | 42.8 | 57.2 | 14 205 192 | 28 343 203 | 42 548 395 | 33.4 | 66.6 | 6 711 912 | 10 007 370 | 67.1 |
| 2012 | 2 331 932 | 2 987 816 | 5 319 748 | 43.8 | 56.2 | 15 493 298 | 30 427 171 | 45 920 469 | 33.7 | 66.3 | 6 643 975 | 10 183 750 | 65.2 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Superintendency of Banks and Financial Institutions of Chile, *Género en el sistema financiero. Duodécima versión*, Santiago, Chile, February 2013.

[a] Total debt includes commercial, mortage and consumer loans.

[b] Information at December each year, except in 2012, when the data refer to September.

[c] Nominal values.

## Table A.35

**Chile: number of commercial loans and commercial debt, by sex, 2002-2012**

*(Number of loans,sums in millions of Chilean pesos and percentages)*

| Year [a] | Number of accounts | | | Percentage share | | Commercial debt in millions of pesos [b] | | | Percentage share | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Total | Women | Men | Women | Men | Total | Women | Men |
| 2002 | 250 220 | 472 092 | 722 312 | 34.6 | 65.4 | 652 765 | 2 764 038 | 3 416 803 | 19.1 | 80.9 |
| 2003 | 240 221 | 456 360 | 696 581 | 34.5 | 65.5 | 644 558 | 2 741 944 | 3 386 502 | 19.0 | 81.0 |
| 2004 | 101 609 | 223 488 | 325 097 | 31.3 | 68.7 | 574 072 | 2 535 862 | 3 109 934 | 18.5 | 81.5 |
| 2005 | 165 227 | 308 875 | 474 102 | 34.9 | 65.1 | 758 551 | 3 046 902 | 3 805 453 | 19.9 | 80.1 |
| 2006 | 175 265 | 320 530 | 495 795 | 35.4 | 64.6 | 839 585 | 3 259 390 | 4 098 975 | 20.5 | 79.5 |
| 2007 | 173 938 | 317 892 | 491 830 | 35.4 | 64.6 | 999 363 | 3 588 424 | 4 587 787 | 21.8 | 78.2 |
| 2008 | 205 580 | 335 809 | 541 389 | 38.0 | 62.0 | 1 159 141 | 3 917 457 | 5 076 598 | 22.8 | 77.2 |
| 2009 | 212 895 | 326 387 | 539 282 | 39.5 | 60.5 | 1 337 585 | 4 253 592 | 5 591 177 | 23.9 | 76.1 |
| 2010 | 252 790 | 361 942 | 614 732 | 41.1 | 58.9 | 1 514 370 | 4 530 096 | 6 044 466 | 25.1 | 74.9 |
| 2011 | 288 086 | 394 475 | 682 561 | 42.2 | 57.8 | 1 765 974 | 5 025 403 | 6 791 377 | 26.0 | 74.0 |
| 2012 | 378 783 | 439 996 | 818 779 | 46.3 | 53.7 | 2 115 172 | 5 301 832 | 7 417 004 | 28.5 | 71.5 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Superintendency of Banks and Financial Institutions of Chile, *Género en el sistema financiero. Duodécima versión*, Santiago, Chile, February 2013.

[a] Information at December each year, except in 2012, when the data refer to September.

[b] Nominal values.

## Table A.36

**Chile: number of mortgage loans and mortgage debt, by sex, 2002-2012**

*(Number of loans, sums in millions of Chilean pesos and percentages)*

| Year [a] | Number of mortgage loans | | | Percentage share | | Mortgage debt in millions of pesos [b] | | | Percentage share | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Total | Women | Men | Women | Men | Total | Women | Men |
| 2002 | 182 885 | 331 981 | 514 866 | 35.5 | 64.5 | 1 545 930 | 3 628 997 | 5 174 927 | 29.9 | 70.1 |
| 2003 | 184 204 | 330 060 | 514 264 | 35.8 | 64.2 | 1 653 158 | 3 937 444 | 5 590 602 | 29.6 | 70.4 |
| 2004 | 186 033 | 333 218 | 519 251 | 35.8 | 64.2 | 1 843 921 | 4 566 379 | 6 410 300 | 28.8 | 71.2 |
| 2005 | 278 082 | 435 410 | 713 492 | 39.0 | 61.0 | 3 089 403 | 6 489 087 | 9 578 490 | 32.3 | 67.7 |
| 2006 | 289 460 | 451 610 | 741 070 | 39.1 | 60.9 | 3 650 103 | 7 413 087 | 11 063 190 | 33.0 | 67.0 |
| 2007 | 296 334 | 461 408 | 757 742 | 39.1 | 60.9 | 4 712 305 | 9 268 817 | 13 981 122 | 33.7 | 66.3 |
| 2008 | 329 537 | 502 921 | 832 458 | 39.6 | 60.4 | 5 774 508 | 11 124 547 | 16 899 055 | 34.2 | 65.8 |
| 2009 | 345 740 | 520 619 | 866 359 | 39.9 | 60.1 | 6 433 516 | 11 899 992 | 18 333 508 | 35.1 | 64.9 |
| 2010 | 358 394 | 537 653 | 896 047 | 40.0 | 60.0 | 7 287 832 | 13 298 220 | 20 586 052 | 35.4 | 64.6 |
| 2011 | 373 806 | 554 793 | 928 599 | 40.3 | 59.7 | 8 344 616 | 15 042 883 | 23 387 499 | 35.7 | 64.3 |
| 2012 | 386 914 | 569 944 | 956 858 | 40.4 | 59.6 | 9 026 237 | 16 247 635 | 25 273 872 | 35.7 | 64.3 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Superintendency of Banks and Financial Institutions of Chile, *Género en el sistema financiero. Duodécima versión*, Santiago, Chile, February 2013.

[a] Information at December each year, except in 2012, when the data refer to September.

[b] Nominal values.

## Table A.37

**Chile: number of consumer loans and consumer debt, by sex, 2002-2012**

*(Number of loans, sums in millions of Chilean pesos and percentages)*

| Año [a] | Number of consumer loans | | | Percentage share | | Consumer debt in millions of pesos [b] | | | Percentage share | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Total | Women | Men | Women | Men | Total | Women | Men |
| 2002 | 495 406 | 840 951 | 1 336 357 | 37.1 | 62.9 | 672 979 | 1 588 372 | 2 261 351 | 29.8 | 70.2 |
| 2003 | 469 009 | 804 167 | 1 273 176 | 36.8 | 63.2 | 759 537 | 1 784 953 | 2 544 490 | 29.9 | 70.1 |
| 2004 | 498 411 | 825 299 | 1 323 710 | 37.7 | 62.3 | 1 095 356 | 2 508 517 | 3 603 873 | 30.4 | 69.6 |
| 2005 | 918 296 | 1 386 554 | 2 304 850 | 39.8 | 60.2 | 1 885 914 | 3 900 310 | 5 786 224 | 32.6 | 67.4 |
| 2006 | 922 434 | 1 362 258 | 2 284 692 | 40.4 | 59.6 | 2 283 156 | 4 622 471 | 6 905 627 | 33.1 | 66.9 |
| 2007 | 885 151 | 1 308 542 | 2 193 693 | 40.3 | 59.7 | 2 672 631 | 5 326 284 | 7 998 915 | 33.4 | 66.6 |
| 2008 | 1 279 630 | 1 772 099 | 3 051 729 | 41.9 | 58.1 | 3 062 107 | 6 030 097 | 9 092 204 | 33.7 | 66.3 |
| 2009 | 1 283 260 | 1 732 053 | 3 015 313 | 42.6 | 57.4 | 3 227 594 | 6 308 755 | 9 536 349 | 33.8 | 66.2 |
| 2010 | 1 341 855 | 1 781 225 | 3 123 080 | 43.0 | 57.0 | 3 560 658 | 7 102 715 | 10 663 373 | 33.4 | 66.6 |
| 2011 | 1 454 522 | 1 882 966 | 3 337 488 | 43.6 | 56.4 | 4 094 602 | 8 274 917 | 12 369 519 | 33.1 | 66.9 |
| 2012 | 1 566 235 | 1 977 876 | 3 544 111 | 44.2 | 55.8 | 4 351 890 | 8 877 705 | 13 229 595 | 32.9 | 67.1 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Superintendency of Banks and Financial Institutions of Chile, *Género en el sistema financiero. Duodécima versión*, Santiago, Chile, February 2013.

[a] Information at December each year, except in 2012, when the data refer to September.

[b] Nominal values.

### Table A.38
**Chile: number of savings accounts and savings balance,[a] by sex, 2002-2012**
*(Thousands of accounts, sums in millions of Chilean pesos and percentages)*

| Year[b] | Thousands of accounts | | | Percentage share | | Balance in millions of pesos[c] | | | Percentage share | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Total | Women | Men | Women | Men | Total | Women | Men |
| 2002 | 7 245 | 7 155 | 14 400 | 50.3 | 49.7 | 3 223 321 | 3 380 244 | 6 603 565 | 48.8 | 51.2 |
| 2003 | 7 584 | 7 094 | 14 678 | 51.7 | 48.3 | 2 980 491 | 3 116 772 | 6 097 263 | 48.9 | 51.1 |
| 2004 | 7 507 | 6 860 | 14 367 | 52.3 | 47.7 | 2 729 304 | 2 757 340 | 5 486 644 | 49.7 | 50.3 |
| 2005 | 8 028 | 6 263 | 14 291 | 56.2 | 43.8 | 3 109 158 | 3 070 798 | 6 179 956 | 50.3 | 49.7 |
| 2006 | 8 357 | 6 442 | 14 799 | 56.5 | 43.5 | 3 341 193 | 3 317 668 | 6 658 861 | 50.2 | 49.8 |
| 2007 | 8 724 | 6 604 | 15 328 | 56.9 | 43.1 | 3 623 986 | 3 473 555 | 7 097 541 | 51.1 | 48.9 |
| 2008 | 9 511 | 7 118 | 16 629 | 57.2 | 42.8 | 4 591 000 | 4 719 030 | 9 310 030 | 49.3 | 50.7 |
| 2009 | 9 886 | 7 275 | 17 161 | 57.6 | 42.4 | 3 665 305 | 3 429 923 | 7 095 228 | 51.7 | 48.3 |
| 2010 | 10 131 | 7 415 | 17 546 | 57.7 | 42.3 | 3 889 063 | 3 645 802 | 7 534 865 | 51.6 | 48.4 |
| 2011 | 10 491 | 7 752 | 18 243 | 57.5 | 42.5 | 5 045 252 | 5 290 835 | 10 336 087 | 48.8 | 51.2 |
| 2012 | 10 743 | 7 897 | 18 640 | 57.6 | 42.4 | 5 905 179 | 6 274 686 | 12 179 865 | 48.5 | 51.5 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Superintendency of Banks and Financial Institutions of Chile, *Género en el sistema financiero. Duodécima versión*, Santiago, Chile, February 2013.
[a] Savings include time deposits, term savings accounts, home saver accounts and voluntary pension savings.
[b] Information at December each year, except in 2012, when the data refer to September.
[c] Nominal values.

### Table A.39
**Chile: number of accounts and balance in term savings accounts, 2002-2012**
*(Number of accounts, sums in millions of Chilean pesos and percentages)*

| Year[a] | Number of accounts | | | Percentage share | | Balance in millions of pesos[b] | | | Percentage share | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Total | Women | Men | Women | Men | Total | Women | Men |
| 2002 | 6 068 899 | 5 764 908 | 11 833 807 | 51.3 | 48.7 | 1 228 436 | 1 070 539 | 2 298 975 | 53.4 | 46.6 |
| 2003 | 6 309 551 | 5 740 324 | 12 049 875 | 52.4 | 47.6 | 1 200 445 | 1 016 665 | 2 217 110 | 54.1 | 45.9 |
| 2004 | 6 160 196 | 5 503 739 | 11 663 935 | 52.8 | 47.2 | 1 172 678 | 984 737 | 2 157 415 | 54.4 | 45.6 |
| 2005 | 6 522 337 | 5 182 268 | 11 704 605 | 55.7 | 44.3 | 1 242 478 | 973 449 | 2 215 927 | 56.1 | 43.9 |
| 2006 | 6 715 843 | 5 288 333 | 12 004 176 | 55.9 | 44.1 | 1 264 227 | 987 844 | 2 252 071 | 56.1 | 43.9 |
| 2007 | 6 864 168 | 5 333 138 | 12 197 306 | 56.3 | 43.7 | 1 316 199 | 1 022 688 | 2 338 887 | 56.3 | 43.7 |
| 2008 | 7 338 462 | 5 662 533 | 13 000 995 | 56.4 | 43.6 | 1 415 964 | 1 097 372 | 2 513 336 | 56.3 | 43.7 |
| 2009 | 7 611 387 | 5 823 459 | 13 434 846 | 56.7 | 43.3 | 1 481 410 | 1 137 125 | 2 618 535 | 56.6 | 43.4 |
| 2010 | 7 792 651 | 5 937 541 | 13 730 192 | 56.8 | 43.2 | 1 590 406 | 1 219 451 | 2 809 857 | 56.6 | 43.4 |
| 2011 | 7 990 846 | 6 144 647 | 14 135 493 | 56.5 | 43.5 | 1 673 001 | 1 284 033 | 2 957 034 | 56.6 | 43.4 |
| 2012 | 8 094 531 | 6 178 118 | 14 272 649 | 56.7 | 43.3 | 1 781 586 | 1 361 496 | 3 143 082 | 56.7 | 43.3 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Superintendency of Banks and Financial Institutions of Chile, *Género en el sistema financiero. Duodécima versión*, Santiago, Chile, February 2013.
[a] Information at December each year, except in 2012, when the data refer to September.
[b] Nominal values.

### Table A.40
**Chile: number of accounts and balance in home saver accounts, by sex, 2002-2012**
*(Number of accounts, sums in millions of Chilean pesos and percentages)*

| Year[a] | Number of accounts | | | Percentage share | | Balance in millions of pesos[b] | | | Percentage share | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Total | Women | Men | Women | Men | Total | Women | Men |
| 2002 | 888 621 | 1 140 347 | 2 028 968 | 43.8 | 56.2 | 143 574 | 159 369 | 302 943 | 47.4 | 52.6 |
| 2003 | 1 021 230 | 1 133 624 | 2 154 854 | 47.4 | 52.6 | 144 974 | 144 791 | 289 765 | 50.0 | 50.0 |
| 2004 | 1 121 236 | 1 165 446 | 2 286 682 | 49.0 | 51.0 | 152 923 | 144 663 | 297 586 | 51.4 | 48.6 |
| 2005 | 1 252 488 | 868 454 | 2 120 942 | 59.1 | 40.9 | 178 965 | 135 696 | 314 661 | 56.9 | 43.1 |
| 2006 | 1 377 683 | 936 337 | 2 314 020 | 59.5 | 40.5 | 187 486 | 136 772 | 324 258 | 57.8 | 42.2 |
| 2007 | 1 595 147 | 1 055 805 | 2 650 952 | 60.2 | 39.8 | 213 372 | 148 211 | 361 583 | 59.0 | 41.0 |
| 2008 | 1 830 132 | 1 165 641 | 2 995 773 | 61.1 | 38.9 | 250 674 | 165 853 | 416 527 | 60.2 | 39.8 |
| 2009 | 2 022 387 | 1 254 400 | 3 276 787 | 61.7 | 38.3 | 258 085 | 167 218 | 425 303 | 60.7 | 39.3 |
| 2010 | 2 081 629 | 1 277 451 | 3 359 080 | 62.0 | 38.0 | 256 081 | 164 414 | 420 495 | 60.9 | 39.1 |
| 2011 | 2 172 355 | 1 333 422 | 3 505 777 | 62.0 | 38.0 | 285 877 | 184 424 | 470 301 | 60.8 | 39.2 |
| 2012 | 2 263 840 | 1 384 939 | 3 648 779 | 62.0 | 38.0 | 324 060 | 203 013 | 527 073 | 61.5 | 38.5 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Superintendency of Banks and Financial Institutions of Chile, *Género en el sistema financiero. Duodécima versión*, Santiago, Chile, February 2013.
[a] Information at December each year, except in 2012, when the data refer to September.
[b] Nominal values.

**Table A.41**

**Chile: returned cheques, by sex of main account holder, 2003-2012**

*(Number of cheques returned unpaid owing to lack of funds for every 1,000 cheques presented)*

| Year [a] | Number of cheques | | |
|---|---|---|---|
| | Women | Men | Total |
| 2003 | 6 | 7 | 13 |
| 2004 | 7 | 8 | 15 |
| 2005 | 7 | 8 | 15 |
| 2006 | 7 | 9 | 16 |
| 2007 | 8 | 10 | 18 |
| 2008 | 10 | 11 | 21 |
| 2009 | 12 | 14 | 26 |
| 2010 | 11 | 14 | 25 |
| 2011 | 10 | 11 | 21 |
| 2012 | 10 | 12 | 22 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Superintendency of Banks and Financial Institutions of Chile, *Género en el sistema financiero. Duodécima versión*, Santiago, Chile, February 2013.

[a] Information at December each year, except in 2012, when the data refer to September.

**Table A.42**

**Chile: comparative arrears ratio between men and women, 2008-2012**

*(Percentages)*

| Year [a] | Women [b] | | Men [b] | | Percentage-point difference [c] | |
|---|---|---|---|---|---|---|
| | 0 to 90 days | 90 days to 1 year | 0 to 90 days | 90 days to 1 year | 0 to 90 days | 90 days to 1 year |
| 2008 | 0.605 | 1.625 | 0.561 | 1.746 | -0.044 | 0.121 |
| 2009 | 0.648 | 1.402 | 0.824 | 1.618 | 0.176 | 0.216 |
| 2010 | 0.555 | 1.293 | 0.597 | 1.470 | 0.042 | 0.177 |
| 2011 | 0.552 | 1.094 | 0.587 | 1.289 | 0.035 | 0.195 |
| 2012 | 0.535 | 1.079 | 0.635 | 1.273 | 0.100 | 0.194 |

**Source**: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Superintendency of Banks and Financial Institutions of Chile, *Género en el sistema financiero. Duodécima versión*, Santiago, Chile, February 2013.

[a] Information at December each year, except in 2012, when the data refer to September.

[b] Percentage of debt in arrears with respect to total debt.

[c] Difference in percentage points between the arrears index for men and the arrears index for women.

Prepared by ECLAC for the twelfth session of the Regional Conference on Women in Latin America and the Caribbean, this document systematizes and describes various dimensions that shape the way the region's women participate in the labour market, and how they access and use the different elements of the digital economy.

Information and communications technologies (ICTs) provide essential support across all economic, political, cultural and social activity, as well as being a production sector in their own right. As such, they are potential allies in the drive to achieve equality by helping reduce the gender inequities which constitute not only a gender digital gap but also a social divide.

Public policies on gender equality must take into account the key and interconnected dimensions of economy, well-being and technology if they are to be capable of providing an ambitious and innovative response to the challenges of today's society. The core argument in the reflection on ICTs and gender equality thus has to do with how women engage in processes of change and sustainable development in the countries, which cannot be achieved without equal participation by men and women.

From this perspective, the gender digital gap offers a specific opportunity to tackle gender inequalities in the region.

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