



## The lingering face of gender inequality in Latin America<sup>1</sup>

María Magdalena Camou

[maria.camou@cienciassociales.edu.uy](mailto:maria.camou@cienciassociales.edu.uy)

Silvana Maubrigades

[silvana.maubrigades@cienciassociales.edu.uy](mailto:silvana.maubrigades@cienciassociales.edu.uy)

### Abstract

The labour market experienced in the last fourth decades a great change in its composition through the increasing of female labour force. In most of the Latin America countries during this period a huge increase of women participation in the urban labor market takes place (Camou 2012). The female labour force participation begins to increase in the 70s, continuing into the 80s and in the 90s the region sees a significant improvement. From the 60' Argentine, Brazil, Uruguay, Mexico and Chile passed of a female participation rate of around 20% to 40-50% in 2000.

This change can be explained among other things by a process of technological advance and increase of human capital that allow to replace domestic or informal work by paid work. This change impacts on the labor market by increasing the supply of labor and increasing inequality between workers given that a gender gap persists.

In Latina America the more recent studies of income distribution show heterogeneity between the countries (Bourguignon, Ferreira et al. 2004). We think that this topic highlighted the necessity of decomposition of inequality to understand the driving forces behind inequality over time.

The main goal of the research is to test the hypothesis that the evolution of the gender wage gap is an important component in global inequality and it has nonlinear effects. Although this gap has narrowed in recent decades it is still wide, especially in the Latin American countries where inequality is high and where the incorporation of women into the labour force has lagged behind the developed countries.

**Keywords: wage gap, development, inequality**

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## 1. Introduction

The composition of the labour market in most Latin American countries has changed greatly in the last four decades with a huge increase in the proportion of women in the urban labour market (Camou 2012). Female labour force participation in the region began to increase in the 1970s and this continued through the 1980s and 1990s. In Argentine, Brazil, Uruguay, Mexico and Chile a female participation rate of around 20% in 1960 increased to 40-50% in 2000.

The demographic, technological and economic factors behind this process are discussed in the literature on this subject. Although this change opens new opportunities for women to become more economically independent a high proportion are still inactive, and increased women's participation has not eliminated segregation in the labour market.

Recent studies show that the Latin American countries are heterogeneous in this respect. The predominant trend in the last two decades of the 20th century was for increased inequality, although this began to reverse in the 21st century (Bourguignon et al. 2004; Bértola and Ocampo 2012). However, the gender component of the evolution of inequality has not been sufficiently incorporated into these results.

Our main aim in this study is to reconstruct the gender wage gap for a sample of Latin American countries to frame explanations of its evolution and impact on inequality. Our data on gender come from the censuses and Household Surveys in each country.

Our research involves an exhaustive analysis of wage differences between men and women and focuses on how the gender gap has changed over time and its relation to inequality in the different countries. Our sample consists of Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, Uruguay and Venezuela.

Our emphasis is on reconstructing gender indicators for the long run, insofar as this is possible with the sources available, and we analyze the different trajectories and patterns of inequality that are specifically related to gender, and check them against global income distribution inequality.



Our hypothesis is that the evolution of the gender wage gap is an important component in overall inequality and it has nonlinear effects. Although this gap has narrowed in recent decades it is still wide, especially in the Latin American countries where inequality is high and where the incorporation of women into the labour force has lagged behind the developed countries.

This paper is organized as follows: in the second section we summarize the theoretical links between the increasing female labour supply and inequality; we summarize the most important results from Latin American research on the subject and the goals of our approach. In the third section we present our methodology and the sources used in this research. In the fourth section we explain the latest data on the evolution of female labour force participation, and on education, in Latin America in the 20th century; we discuss the relation between the levels of women's participation in the labour market, the long run trajectory and the evolution of women's education levels. In the fifth section we examine the evolution of the gender wage gap and inequality indicators. In the sixth section we test the explanatory power of increased female labour supply, overall inequality and education, in the gender gap. In the last section we draw some preliminary conclusions.

## **2. Theoretical approach**

In the last few years the literature on economic inequality, its connection to globalization and its consequences for economic growth has yielded a considerable amount of research.

Latin America has always had high levels of inequality, and today, in spite of recent improvements, it is still the second most unequal region in the world, just above Sub-Saharan Africa

According to Bértola and Ocampo (2010), most studies of this subject in Latin America agree that the main cause of increasing inequality in the region has been the process whereby political power, wealth and income have become concentrated in the hands of landowning and capitalist elites and of the people who control work and trade relations.



In the First Globalization period inequality in Latin America increased, and while the gap was not as wide as in other regions at that time like Africa and Asia it was still too great to enable these Hispanic countries to catch up with the developed world.

In the industrialization period, social development indicators in Latin America had higher growth rates than at any other time in the region's history, although the improvement was more marked in some countries than in others.

There was also an improvement in equity levels in the countries that managed to develop welfare state systems such as Argentina, Chile and Uruguay. However, other countries had high levels of inequality in their economies either because there were big differences in the composition of the population (indigenous people, peasants, the descendants of slaves) or because their labour markets were strongly segmented and there were gaps between formal and informal workers that highlighted the differences that State regulation brought with it.

Starting in the 1970s, the levels of equity that had been attained previously began to diminish. This was due to the drastic deregulation of labour markets, increasing segmentation in job markets, a widening gap between the skilled and the unskilled workforce, along with a decrease in industrialization, less State participation and a cutback on policies to redistribute wealth among the population.

Many authors consider that the persistence of inequality is related to social, cultural and economic frameworks and the fact that discrimination and prejudice are embedded in formal and informal institutions. This particularly affects gender inequality, which according to the literature (Sarasúa and Galvez 2003) is related to false beliefs and stereotypes that permeate education, family and the functioning of the labour market.

Since 1970, women in Latin America have had considerably higher levels of well-being, measured in terms of health and education, than women in other developing regions. However, in spite of this progress, Latin American women have not had equal opportunities to earn income and have largely been excluded from positions of power in political and economic institutions. This makes the region an interesting context in which to consider the effects of globalization, both because the moves toward



liberalization have been substantial and because women have had many of the prerequisites to participate in the paid economy as workers.

There is considerable discussion in the literature about the consequences of increasing women's participation in the labour force during the globalization period, and interpretations of the evidence are uncertain and diverse. According to the neoclassical view, as exemplified by the simple Stolper-Samuelson model, in developing countries free trade leads to rising wages for unskilled work, which is the relatively abundant production factor in these economies (Samuelson, 1948). Since unskilled work is often done by women we can infer from the Stolper-Samuelson model that globalization leads to increased demand for women to work, and hence should have as a final consequence a relative expansion of female participation and a narrowing of the gender gap (see the case of Mexico in Dell, 2005; Artecona, Cunningham, 2002, Garcia-Cuellar, 2001).

However, the evidence for the period 1970-1990 does not support this theory insofar as the growth of demand for female labour has not produced any robust decline in the gender earnings gap, which varies greatly between different regions of the world (Çağatay and Ertürk 2004). Moreover, the narrowing of gender gaps cannot be attributed only to the globalization process because other changes also had an impact. It may be that the improved quality of female labour with the incorporation of workers who were more experienced and better educated (O'Neill and Polachek 1993, Goldin 2000), and the fall in wages for less skilled male workers (Blau and Kahn 1997) came into play, rather than just an increase in the demand for female labour.

The most common heterodox approach to this question has been to consider the effect of gender wage gaps on successful export-led growth. Given that women are excluded from certain occupations and sectors, trade opening brought with it an increase in the labour supply of women in certain kinds of work, and this raised unemployment rates and reduced wages (Bergmann, 1974) or perpetuated wage gaps (Joekes, 1999; Seguino 2000b; Berik, Rodgers and Zveglic 2003; Houston, 2005).

Another approach in the literature has focused on the sacrifices that globalization has forced women in developing countries to make (Beneria, 2003; Beneria, Floro, Grown, MacDonald, 2000). With very small or in some cases no improvements in household



technologies, greater female participation levels in paid occupations have meant more total hours of work for women than for men. Adjustment policies and public expenditure cutbacks in the same period have had direct negative effects on welfare, health and other human capital services. This affects women more than men, since the former are usually responsible for the human capital formation of their children. Therefore changes in women's economic situations must be analyzed together with other human and social capital conditions that determine their final market power.

### **3. The current situation**

The research into the evolution of the gender gap in the globalization era in Latin America has been addressed by focusing on different perspectives. There is scant literature with an historical perspective. One reason for this is that the data is very difficult to obtain. Prior to 1970 with the first Household Surveys there is little aggregate statistical evidence to study the gender wage gap.

Some authors like Nora Reyes (2012) studied the evolution of the gender wage gap in Chile and demonstrated that it is possible to find new sources of historical data. Up to now there have been no data for wages by gender for Chile prior to 1960. She has been able to document the gender gap from 1939 to 1974, using data from the social security system. Reyes shows that although the gender wage gap tended to diminish over time it was not small, and in a period of almost 30 years, from 1939 to 1968, the ratio of women's wages to male wages increased by only 14 percentage points. So the evidence points towards discrimination. She also sets out an appropriate research agenda, which covers human capital, sector differences and the socio-economic context, to understand better what was going on.

In Uruguay, Camou (2010) studied the evolution of the gender gap in the textile and meatpacking industries, based on business archives for the period of 1915-1957. Her research also shows a trend towards a shrinking gender wage gap for Uruguay in these branches of about 20 percent in the period. The changes are concentrated in the time of institutional changes and labour market regulation.

In another paper Camps et al. analyze and compare the reasons behind the evolution of the gender gap and wage inequality in South and East Asian countries and in Latin America. Human capital health improvements, the exposure to free market openness



and equal treatment enforcement laws seem to be the main exogenous variables affecting women's economic situation. During the second globalization era (in the years 1975-2000) different combinations of these variables in South East Asia and Latin America resulted in a narrowing gender gap. The data show that the main exception to this pattern is China, where economic reforms have taken place at the same time as worsening gender differences and greater inequality between men and women. The improvement in women's situation has resulted in a fall and dispersion of wages. Therefore in most of the countries analyzed the consequence of the narrowing of the gender gap during the second global era has been a decrease in wage inequality measured by both the Gini and Theil indexes.

Hoyos and Ñopo (2010) focus on the changes on the 1990s and 2000s and analyze Household Survey data for 1992 and 2007, controlling by education, number of children and other characteristics of the population. This research explores the changing characteristics of the labour supply and its impact on gender inequality in earnings. The results show that the gender gap decreased by 7% overall during the period but with great heterogeneity among countries as regards the extent of the gap and countries' capacity to reduce it over the period. According to the authors, after those controls, the unexplained earnings gap can in part be related to cohort effects linked to life cycle patterns in gender earnings.

Another study (Gálvez 2001) examined the dynamic of women joining the labour market in Latin America in the 1990s and 2000s. This author concludes that despite improvements in the female activity rate, education level and a smaller gender gap, their situation continued to be worse than men's on indicators like unemployment rate, activity rate and the persistence of the wage gap. Income share by gender does not correspond to GDP level, which means that improvements in gender equality are not necessarily related to economic performance but to institutional, cultural or regulatory aspects. Mexico and Chile are good examples of this negative correlation as they have the lowest levels of women's income related to higher GDP per capita. Considering the impact of these changes on inequality, the author remarks that the increase in inequality among women, which was due to education improvement in the period, may have contributed to an increase in overall inequality.



In this line of research we want to explore other factors that affect gender inequality. Extending the period under study enables us to capture the impact of previous gender inequality on the present gender gap. If path dependency is a central concept in the study of gender then it is very important to understand how and why changes in gender inequality happen. Are the countries with an early high level of gender discrimination those in which it is more difficult to bring women into the workforce?

Lastly, we look at the relationship between overall inequality and gender inequality. We examine whether gender inequality is part of an inequality trend in society, or if it has its own rules and can have an opposite effect on overall inequality.

#### **4. Data and methodology**

Our research concentrates on the differences between women and men in paid work and we do not take into account women who do unpaid work, although this was the biggest group in the female population in the period. It is clear that although gender inequality cannot be reduced merely to a comparison between the sexes, the first step in the analysis must be to focus on a statistical breakdown by gender.

It is well known that when we include information about women's income in international comparisons the first problem is the lack of reliable data. In poor countries part of the work that women do is in the informal economy, at home and/or for piece rates. The information available about this kind of work is still scattered among different datasets and is not comparable across countries. This scarcity of information makes it very difficult to compare women's and men's incomes.

For this reason we focus on wage earnings. Income inequality measures are higher than earnings inequality indexes because wage earnings are less dispersed than total incomes. The data we use enables us to rigorously and systematically analyze gender differences in wage earnings.

Data on wage earnings disaggregated by gender come from the Household Surveys in each country, so we use it to calculate the wage per hour for each sex. In most of the empirical results from the globalization period, the unit of analysis in the datasets is the household, and this gives us Gini coefficients for income and expenditure (Deininger,



Squire, 1996, 1998; World Bank, 1995; Higgins, Williamson, 1999). Other approaches have focused on individuals instead of households, using national income shares and national accounts information (see Bourguignon and Morrison, 2002; Sala-i-Martin, 2003). Therefore our unit of analysis has to be the individual and not the household, since Gini coefficients for household income hide important information about the unequal economic position of women in the household.

We calculate the Gini index for earnings inequality in the economy as a whole, and for inequality among men and among women. We supplement this measure with calculations of the so-called generalized entropy measures, the best known of which are the Theil indexes. These indexes enable us to estimate how much overall inequality is explained by inequality within groups and how much by inequality between groups. We use these indexes to disaggregate inequality into its gender sources.

## **5. The evolution of women labour force participation and education during the 20th century**

There is a line of research that examines the dynamic pattern of women's labour force participation in the long run. Important studies has been done by Claudia Goldin (1994; Goldin, 2006) for the United States, and she finds a "U" relation between female employment rates and economic growth. This is due to the relation between education and economic development. At low levels of development, education increases more for men than for women. As income rises, women's participation decreases. When income increases further, education resources expand and women receive more education, which promotes their participation in the labour market. With more education and the expansion of non-industrial employment, women's participation continues to increase and thus forms the "U" (Psacharopoulos and Tzannatos, 1989; Schultz, 1990). This evolution has been tested using data from countries with different income levels. The results show that countries with higher or lower levels of income have higher female labour force participation rates than middle-income countries (Pampel and Tanaka, 1986; Psacharopoulos and Tzannatos, 1989; Tzannatos, 1999).

The reconstruction of the evolution of female labour force participation in Latin America is very recent (Camou and Maubrigades 2013). One of the main problems is



that, in general, women workers have not been well documented. The censuses carried out in the first decades of the twentieth century contain incoherencies such as differences in the criteria for registering women's participation in the primary sector. This makes the total population of workers in this sector change atypically because this work tends to be less formalized and many women are involved in productive as well as home care activities.

There is another problem with these sources that affects the first censuses in Argentina, Chile and Uruguay, which were carried out at the end of the nineteenth century and the early years of the twentieth. These record each individual's profession or job position regardless of whether or not that person was employed at the time. The present day concept of "unemployed" does not seem to be linearly applicable to this earlier stage in which wage labour was the exception rather than the rule. However, this was a period of rapid economic growth with increasing demand for labour and the incorporation of European immigrants, which means that in all likelihood unemployment, was very low.

From the data collected, three periods in the Latin American countries can be distinguished:

1. 1910-1940: a fall in female labour in some countries like Argentina and Chile.
2. 1940-1970: few changes in the Latin American countries studied.
3. 1970 to the present: explosive growth in female labour participation rates.

The data collected for the years 1930-1970 give quantitative support to the thesis that women's participation in labour markets decreased during the import substitution period (Todaro 2004, Espino and Azar 2007). These authors point out that in Uruguay and Chile the State promoted a sort of male-breadwinner model during this period, which fostered a decrease in women's participation in the labour market.

**Table 1. Female activity rates**

|      | Argentina | Bolivia | Brazil | Chile | Colombia | Costa Rica | Ecuador | El Salvador | Guatemala | Honduras | Mexico | Nicaragua | Paraguay | Peru | Uruguay | Venezuela |
|------|-----------|---------|--------|-------|----------|------------|---------|-------------|-----------|----------|--------|-----------|----------|------|---------|-----------|
| 1900 |           |         |        |       |          |            |         |             |           |          |        |           |          |      |         |           |
| 1910 | 34        |         |        |       |          |            |         |             |           |          | 15     |           |          |      | 18      |           |
| 1920 |           |         |        | 31    |          |            |         |             |           |          | 6      |           |          |      | 21      |           |
| 1930 |           |         |        | 21    |          |            |         |             |           |          | 4      |           |          |      | 20      |           |
| 1940 | 27        |         | 24     | 26    | 28       |            |         |             |           |          | 6      |           |          |      | 21      |           |
| 1950 | 28        |         | 18     | 31    | 23       |            |         |             |           |          | 13     |           |          |      | 22      |           |
| 1960 | 26        |         | 21     | 24    | 23       | 18         | 18      | 19          | 13        |          | 18     | 22        | 26       | 23   | 23      | 20        |
| 1970 | 32        | 23      | 24     | 24    | 27       | 21         | 17      | 25          | 14        | 17       | 20     | 21        | 24       | 21   | 41      | 23        |
| 1980 | 33        | 23      | 33     | 26    | 25       | 29         | 27      | 37          | 14        | 18       | 27     | 36        | 23       | 30   | 42      | 30        |
| 1990 | 43        | 55      | 52     | 34    | 47       | 35         | 37      | 38          | 28        | 30       | 32     | 38        | 43       | 48   | 47      | 36        |
| 2000 | 50        | 61      | 58     | 41    | 57       | 41         | 48      | 47          | 41        | 37       | 41     | 46        | 49       | 59   | 52      | 41        |

Sources: TA: ILO-Olivetti (2013). Argentina: Latin America Census 1960-2000: ILO, Uruguay: Román and Fleitas and Census; Brazil: Census; Chile: Godoy and Díaz.- Mexico: INEGI, DGE. Census. Period 1990 and 2000 - ECLAC 2013.



In our sample (Table 1), female labour force participation began to increase moderately in the 1970s and this trend continued into the 1980s. However, only in the 1990s did the region see a significant improvement. As we found in other research, in general, female participation remained lower than in the developed countries (Camou and Maubrigades 2013).

Besides this, a comparison of the evolution in different Latin American countries in the period shows that the trajectories of women's activity rates diverged. From the countries for which we have the most information there is a group with Chile, Uruguay and Argentina that from the beginning of the period had a relatively higher rate of women's participation in the labour market, while Brazil, Colombia and Mexico were much further behind. By the end of the period Brazil and Colombia had caught up with the levels of the first group. The data sets that start in the 1960s show that the other countries considered have much lower participation rates and, despite some improvement, they have never reached the levels of the first group.

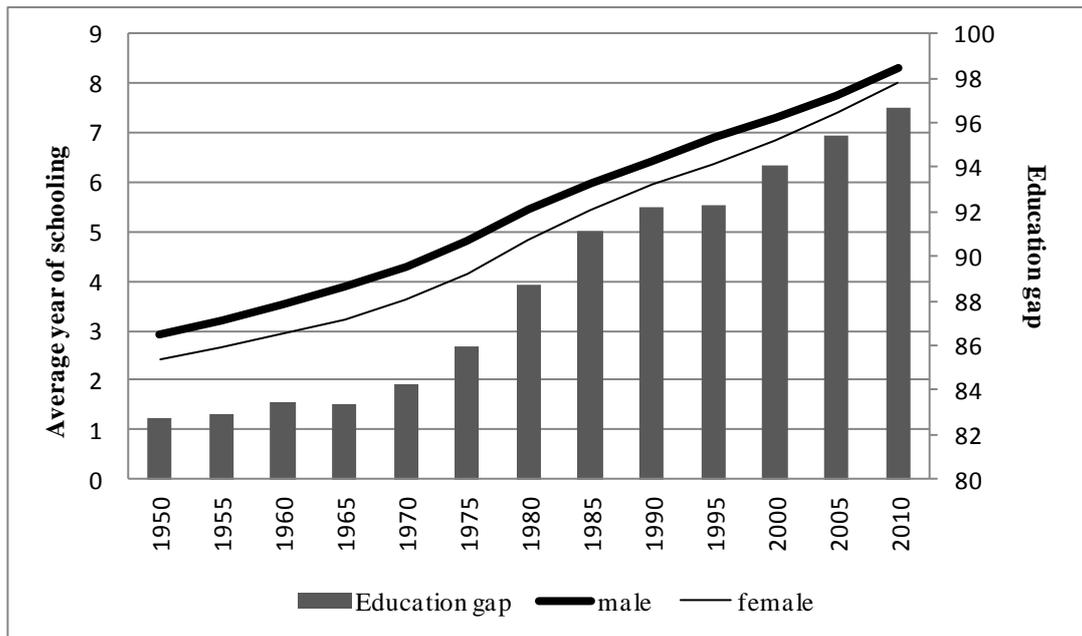
In general, the increase in female labour market activity was not a homogeneous process and there were fluctuations and differences, although the overall long term trend was rising. The evidence shows no single pattern in how these Latin American countries incorporated women into the labour market during their various stages of development.

As regards education, over the last sixty years the educational level of Latin American countries has progressed to an unprecedented degree. In 1950, the region had an illiteracy rate of around 40% among persons aged 15 and over; by 2005 it had fallen below 10%. The speed of progress has varied between countries and the illiteracy rate remains high in some countries, in particular those with large indigenous populations.

Indicators of years of schooling show that in the second half of 20th century in most of Latin America, women's education levels increased to near or even slightly higher than men's in countries like Argentina, Brazil, Costa Rica and Uruguay. Moreover, these figures show that gender differences have been reduced in recent decades. Only in countries with high illiteracy rates and/or large indigenous communities like Guatemala, Nicaragua or Honduras do we see inequalities of access.

Considering the expansion of primary education coverage followed by continual growth in basic education, Latin America have presented a set of education policies geared specifically to less privileged groups (in terms of ethnicity, geographical location and socioeconomic status). However, gender inequalities persist in a group of countries but are hidden behind overall averages.

**Figure 1. Education attainment by sex**



Sources: Based on Barro, R. J. and J. W. Lee (2012)

Figure 1 shows the evolution of education during the period of analysis, comparing average female schooling to average male schooling. The results show that the education of both sexes improved but that girls never reached the boys' levels. The process of reversing the gender gap in education in the region started with the massive intake of women into primary education, it advanced with greater female participation in secondary education and progressed still further with more and more women at the higher education level.



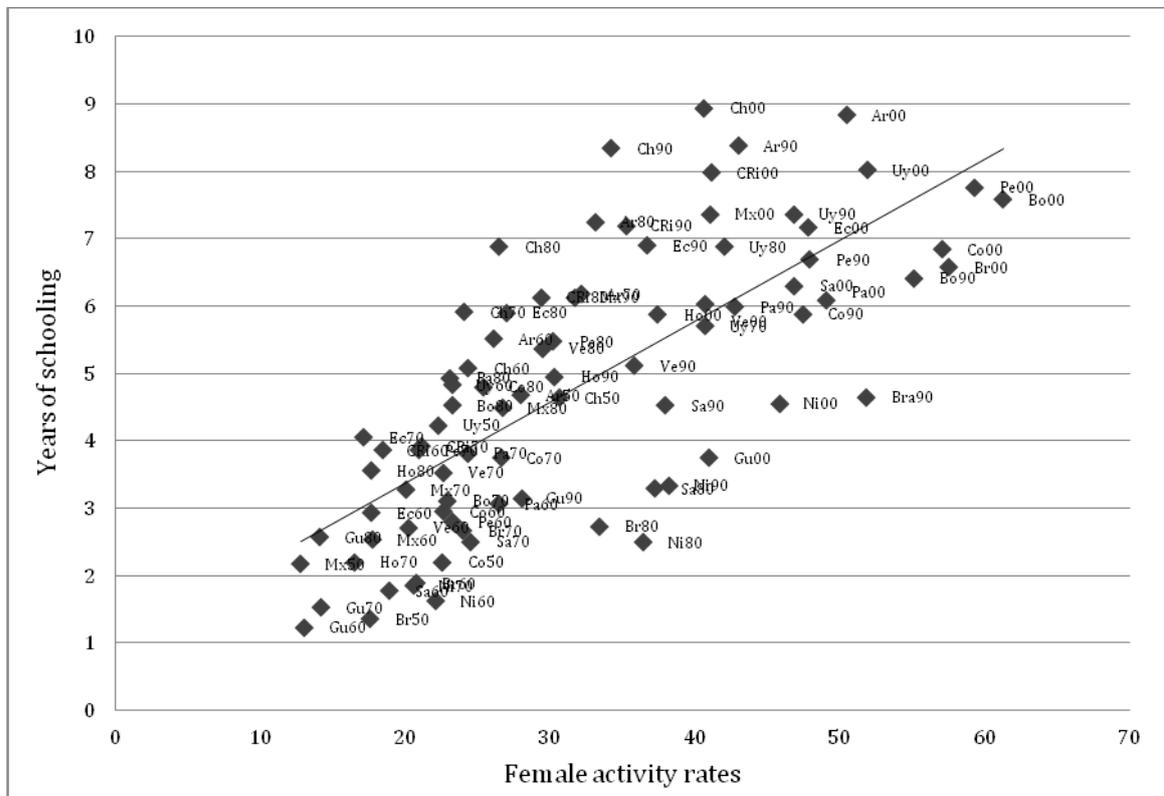
However, when we examine the countries individually we find differences among them. On the one hand, we find a group of countries that start the period with an average of years of study almost twice as high as the others. This is the case in Argentina, Chile and Uruguay and to a lesser degree Costa Rica. This group had an early literacy-improvement process and implemented public policies to promote the enrolment of boys and girls in primary and secondary education. This resulted in sustained growth in years of schooling for both sexes during the second half of the twentieth century and in Argentina and Uruguay women even performed better than the male average.

On the other hand, in the second half of the century there were countries in which overall average schooling among the whole population was only two years, and girls' education still lagged behind that of boys even at the end of the period. In this group we find the countries with larger indigenous and rural populations, and this variable may help to explain why enrolment in formal education institutions was weak. This group contains countries like Guatemala, Honduras, El Salvador and Nicaragua.

Mexico and Brazil are examples of good improvement in the period. In the late 1950s the populations of both had low education levels, but by the end of the period years of schooling in both had increased greatly. It can be inferred that they that grew strongly in economic terms and industrialized during the period, and that they were proactive in education policies to improve their human capital so fast.



Figure 2. Activity rate and year of schooling, 1950-2000



Sources: Activity rates idem Table 1. Years of schooling – Barro and Lee (2012)

The relationship between the evolution of activity rate and that of education has not been linear. At low levels of schooling there is a strong correspondence between years of schooling and female labour force participation but at higher levels of women's education the correlation is weaker.

Although average years of schooling increased in most of the Latin American countries during the period, there are big differences in the sample. In 2000 Chile and Costa Rica had high schooling rates and low activity rates, while Bolivia, Ecuador, Paraguay and El Salvador had high activity rates but only modest increases in years of schooling. Towards the end of the period the countries in the region returned to the free market model and opened up to trade. This shift increased the demand for technical skills and



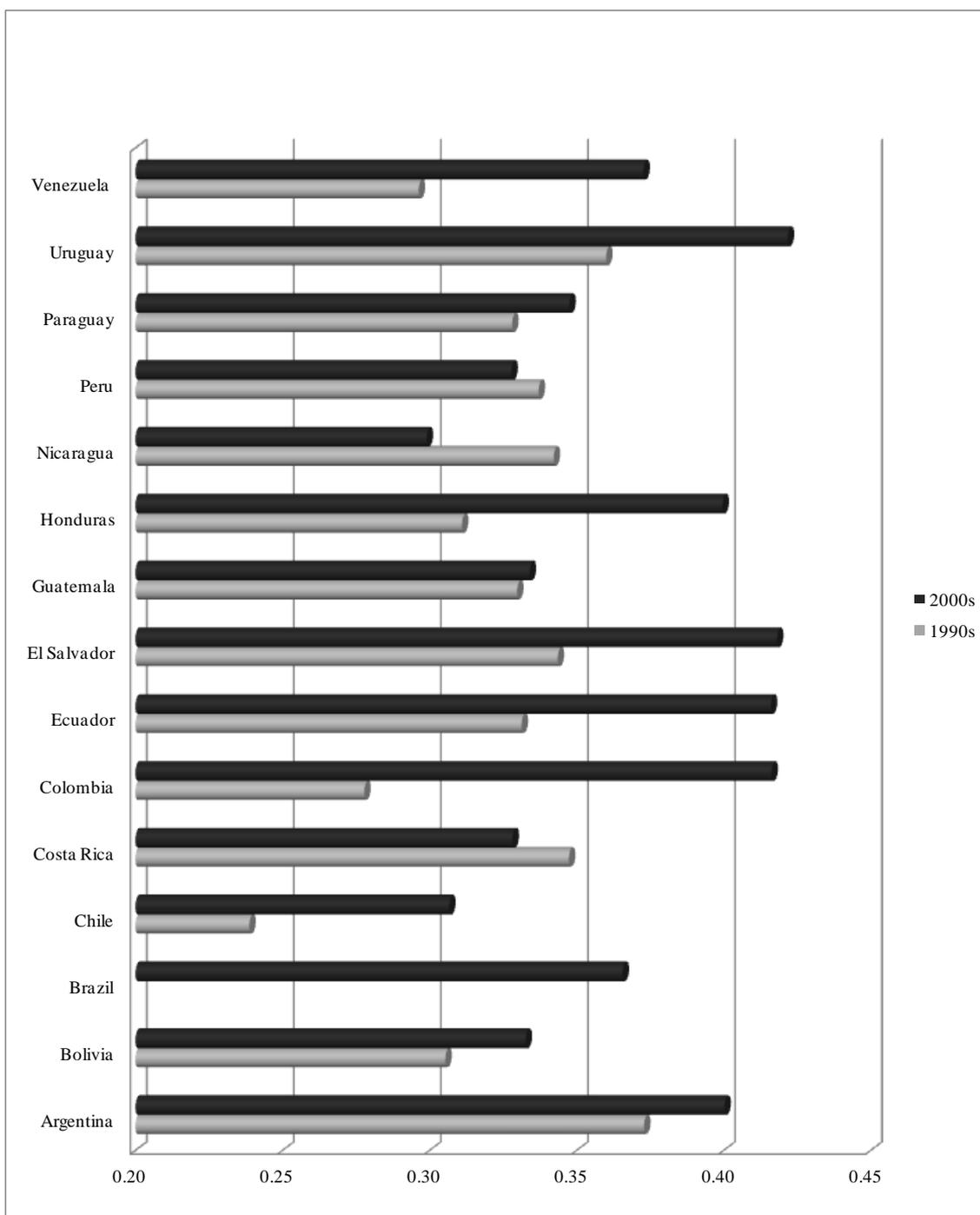
reduced the demand for low-skill workers, a sector in which women are over-represented (Bértola and Ocampo 2012).

## **5. Measuring inequality and the gender gap**

Although overall female labour force participation has increased considerably over the last 50 years, there are still gender differences among countries. Gender discrimination in wages has persisted over time and is common in many countries, and this points to structural causes rooted in economic and institutional systems, both formal and informal, across countries that have different levels of development and different societal contexts. For instance, women are more likely to respond positively to increased economic opportunities in the labour market when child-care services are available or when their participation is socially accepted. In contrast, where significant barriers remain or where the signs are more muted or even contradictory, their progress is more limited.



Figure 3. Women's income share

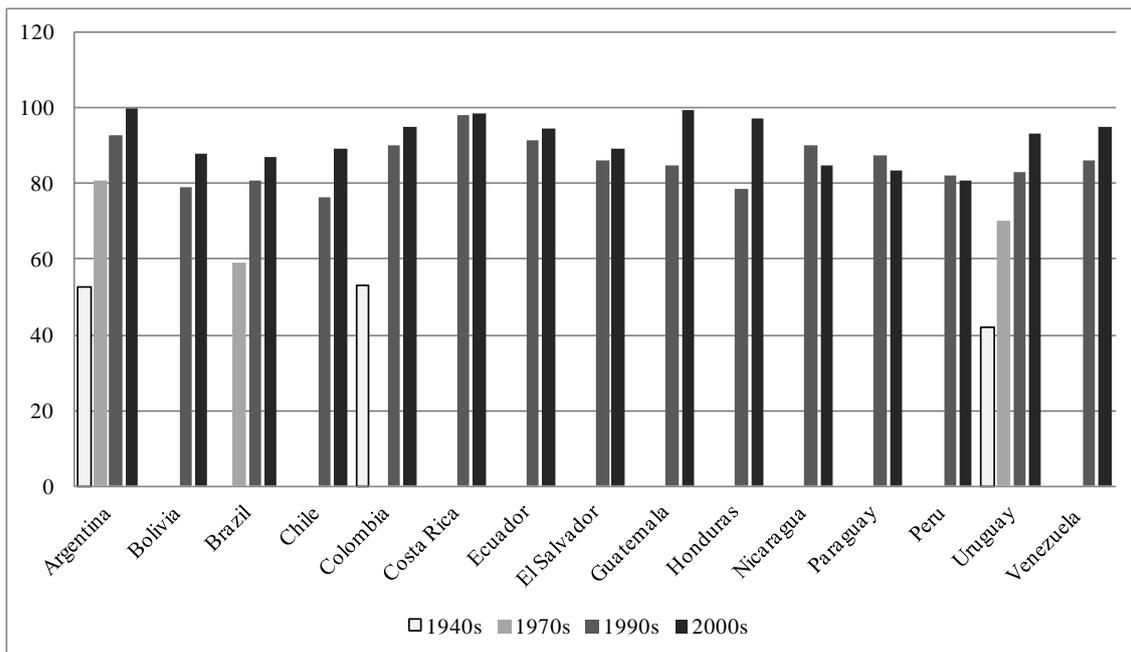


Sources: Household surveys

In the first decade of the 21<sup>st</sup> century in most of Latin America, women received less than 35 % of total income, and in the more advanced countries the figure was around 40%. There is a group of countries in which the women's wage share increased strongly

between 1990 and 2000: Costa Rica, Ecuador, El Salvador, Honduras, Uruguay and Venezuela. In Costa Rica, Ecuador and El Salvador the reason behind this trend is more related to improvements in the female activity rate than to a narrowing of the gender wage gap but in Honduras, Uruguay and Venezuela the gap became considerably smaller during this period.

**Figure 4. Gender Wage Gap in Latin America, 1940-2000**



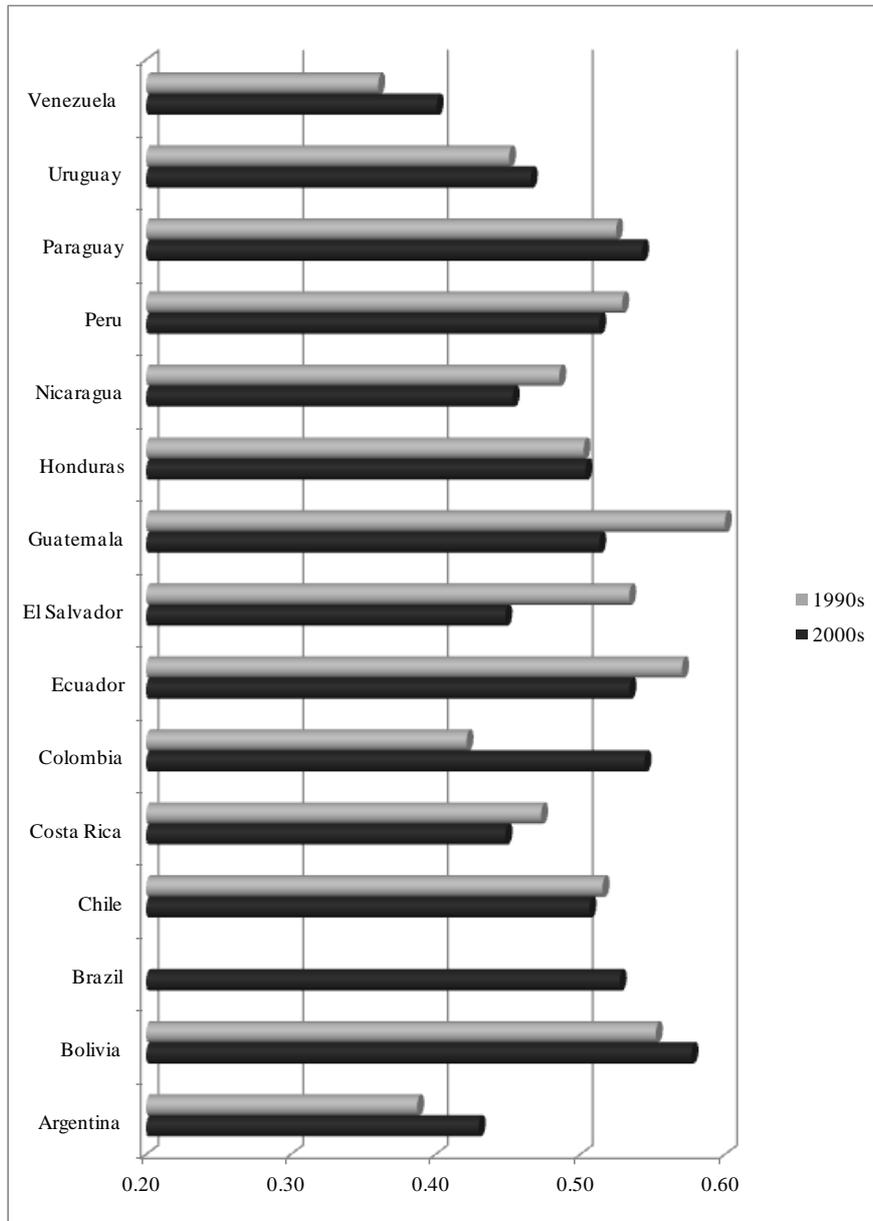
Sources: ILO & Household surveys

In the first decade of the new century the countries with the narrowest wage gaps were Argentina, Colombia, Costa Rica, Guatemala, Honduras, Uruguay and Venezuela.

The other countries in our sample are falling behind. We can only partially reconstruct some countries' trajectories because sources are scarce. The data we have indicates that the countries that had a narrower gender wage gap in the past are the ones performing better at present. In the period 1970 to 2010 the gap in Brazil was wider than that in Argentina or Uruguay.



**Figure 5. Women's wage inequality**



Sources: Household surveys

In Latin America, inequality among men has more weight in the total Gini level due to their greater participation in the labour market and to worse inequality within the group (See appendix).

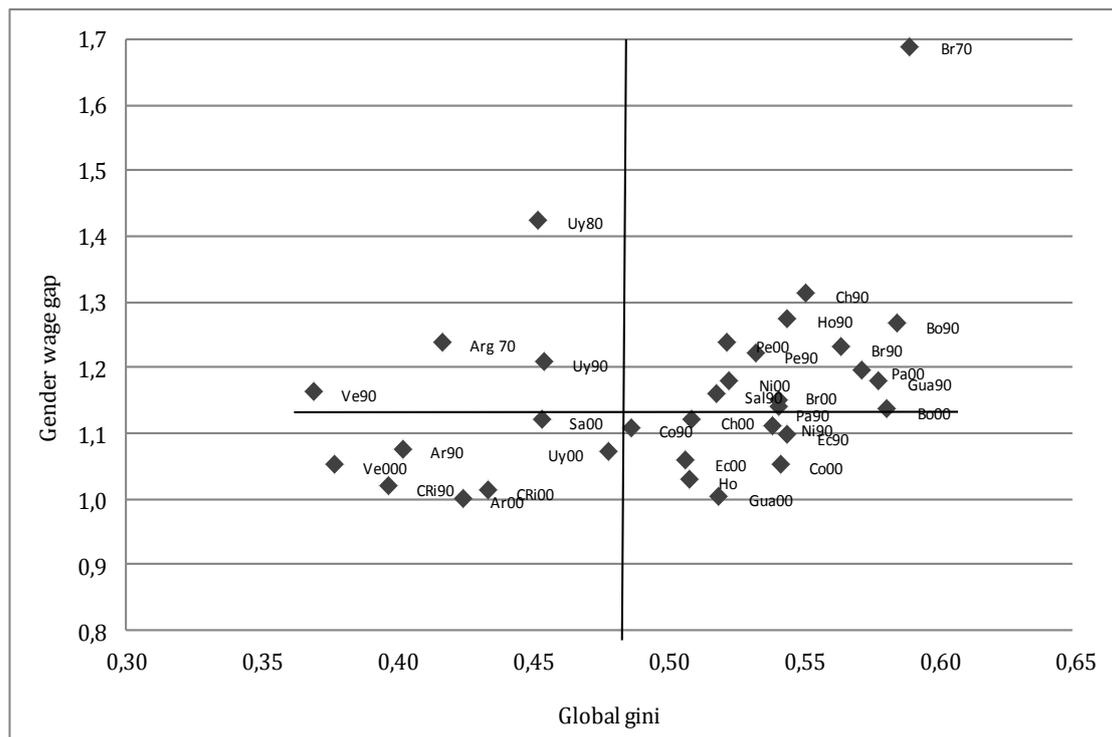
There is no a clear trend in the evolution of inequality among women. While the overall average remains unchanged over the period, there is a group of countries (Argentina,

Uruguay, Costa Rica, Venezuela and Peru) with increasing inequality in women's wages. The overall inequality increase during the period probably affects women as well as men. The reason the spread among women's wages is greater is probably that they join the labour market with greater human capital because their years of schooling and work experience are increasing.

## 6. Explaining the gender gap

Taking account of international comparison conclusions of Blau and Kahn (1997) that labour markets with highly unequal rates of remuneration also have high levels of gender inequality, we tested the relation between overall wage inequality and the gender gap for the Latin American countries.

**Figure 6. Overall inequality and gender gap**



Sources: Household surveys

At first glance the global results confirm the postulated relation. The countries that are more unequal (with Gini ratings above 0.5) also have wider gender gaps. When we look at the differences among countries over the period we can identify two groups. First,



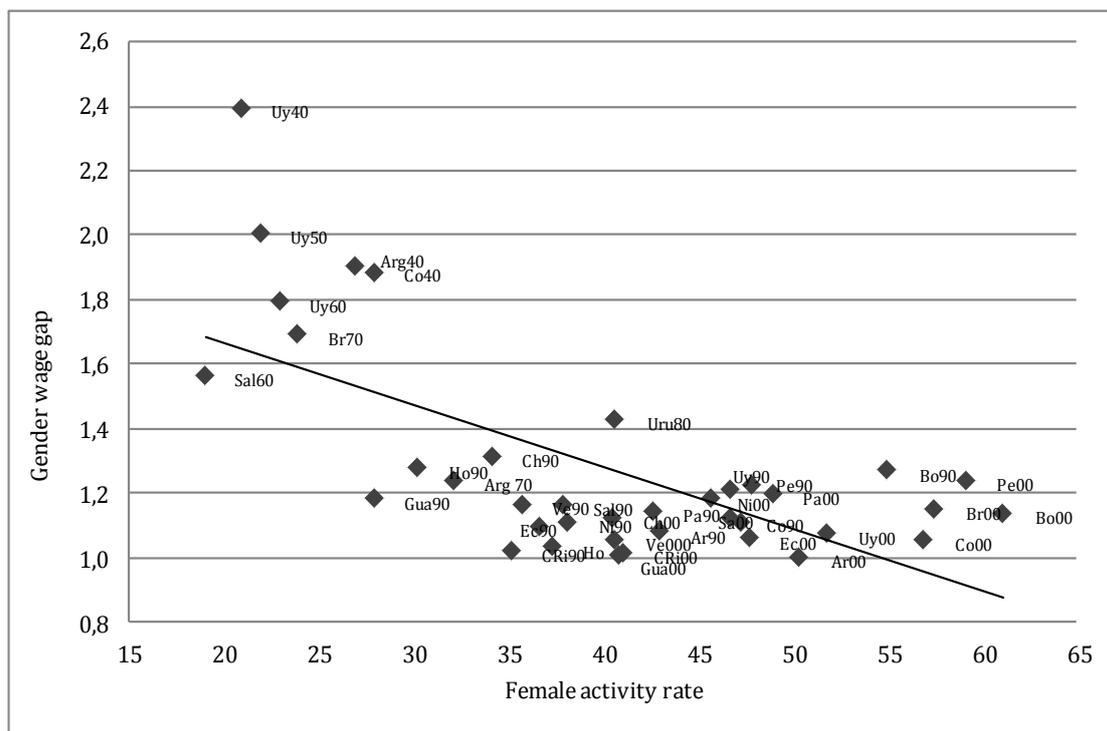
there are those in which overall inequality is relatively high over the period and the gender gap narrows, but remain more unequal in terms of gender. This was the case in Chile, Bolivia, Honduras, Peru, Nicaragua and Ecuador. Brazil was a special case with high inequality and a wide gender gap (see Appendix).

There is a second group with relatively lower total inequality and a narrowing gender gap, and here we find Argentina, Uruguay, Costa Rica and Venezuela. In particular, Argentina and Uruguay are also countries with a lower gender gap in the past and a higher activity rate. In any case, path dependence does not seem to be the only way to achieve a narrower gender gap: Costa Rica and Venezuela did not have a similar evolution in terms of activity rate.

Another factor that probably impacts on the gender gap is the historical pattern of women's participation in the labour market. In the period 1940-1970, gender inequality was high in Latin America and this was expressed in a low level of female participation in the labour market and a wide gender gap. There are few data available for the 1980s, the so-called lost decade, and in the 1990s we enter a new phase with a narrower gender wage gap and greater variability in women's activity rates across the region. At the end of the period women's participation in labour markets was still rising but the gender gap had not significantly narrowed. It can be seen that this correlation between the two variables is not very strong towards the end of the period in which many countries have similar gender gaps and there is a wide spread in the participation rate.



**Figure 7. Female activity rate and gender wage gap.**



Sources: Activity rates idem Table 1. Gender wage gap: ILO and Household surveys.

In Latin America, the trends in women activity rates in labour markets in 2000s are very different between countries. While the general trend is rising over time, only in very few cases does the average reach 50%. This uneven result could have many explanations and is probably linked to the liberal deregulatory economic model prevailing since the 1980s. But, regardless of these results, the gender gap remained stable in the 1990s and 2000s.

These results also show that increases in women's participation in the labour market do not necessarily mean a substantial change because as well as the participation rate increase, the spread of women across the occupation and wages scale is also increasing. Gender gap trends depend more on other factors such as individual investment in education or the social and economic returns of education.

In recent years, female education levels have risen relative to those of men. Although countries have achieved high rates of women's labour market participation, it is clear that educational equality is not sufficient to secure gender parity in income. One of the reasons why the gender gap has persisted is that it tends to be wider at higher levels of education. The evolution of the wage gap between men and women is different at



different educational levels. In the tertiary education group the gender gap was wide at the start of the period and there was little subsequent improvement, which shows the glass ceiling effect, whereas in the group with only primary education the gap narrowed more during the same period.

Women's education improved considerably in the 1990s but, as we saw above, the increasing skill premium that accompanied the new economic model was less favourable for better-educated women. Increasing female labour force participation and improved educational attainment in a context of relatively stable male labour force participation and educational attainment contributed to an overall narrowing of the gap. As we saw above, a steady convergence between the wages of women and those of men is not automatic. The portion of the wage gap that cannot be explained by labour market characteristics related to workers' skills is generally attributed to discrimination and to differences in preferences between men and women. Women tend to enter different careers to men.

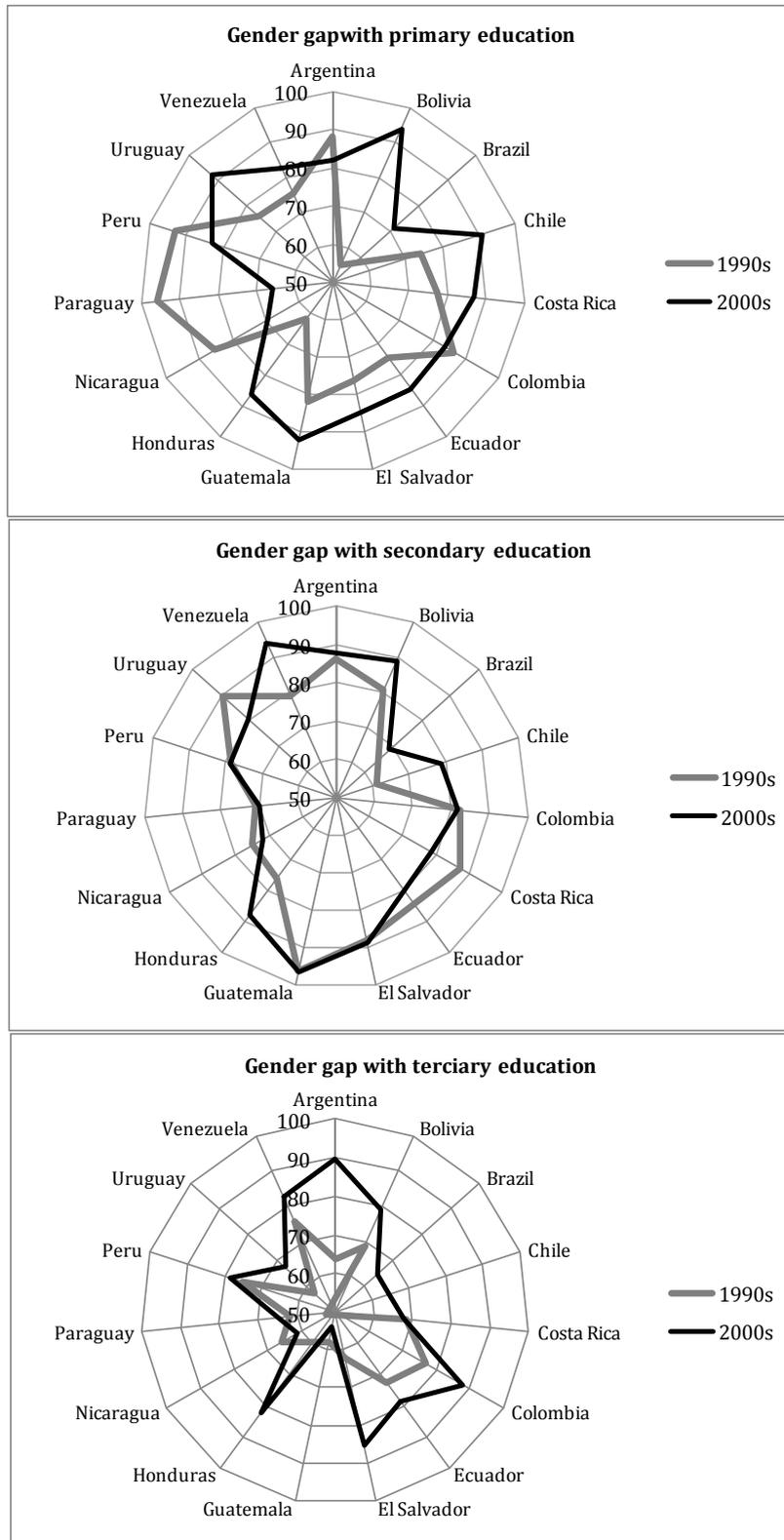
There is still a tendency for occupations to be "male-dominated" or "female-dominated", and the female-dominated ones tend to pay less even when men and women have the same educational level. The majority of women work in the services and agricultural sectors, and the fact is that areas in which women are the vast majority – secretaries, teachers and nurses – are poorly paid.

In general it is assumed that education is positively correlated with employment and wages and that better-educated people are more likely to have jobs and less likely to be unemployed.

In the last 50 years, participation in the education system has increased and the upgrading of the occupational structure as a result of industrialization processes and economic growth has created a demand for a skilled and highly educated labour force. Concurrently, educational qualifications have become important for employment in the occupational hierarchy.



Figure 8. Education and the gender gap

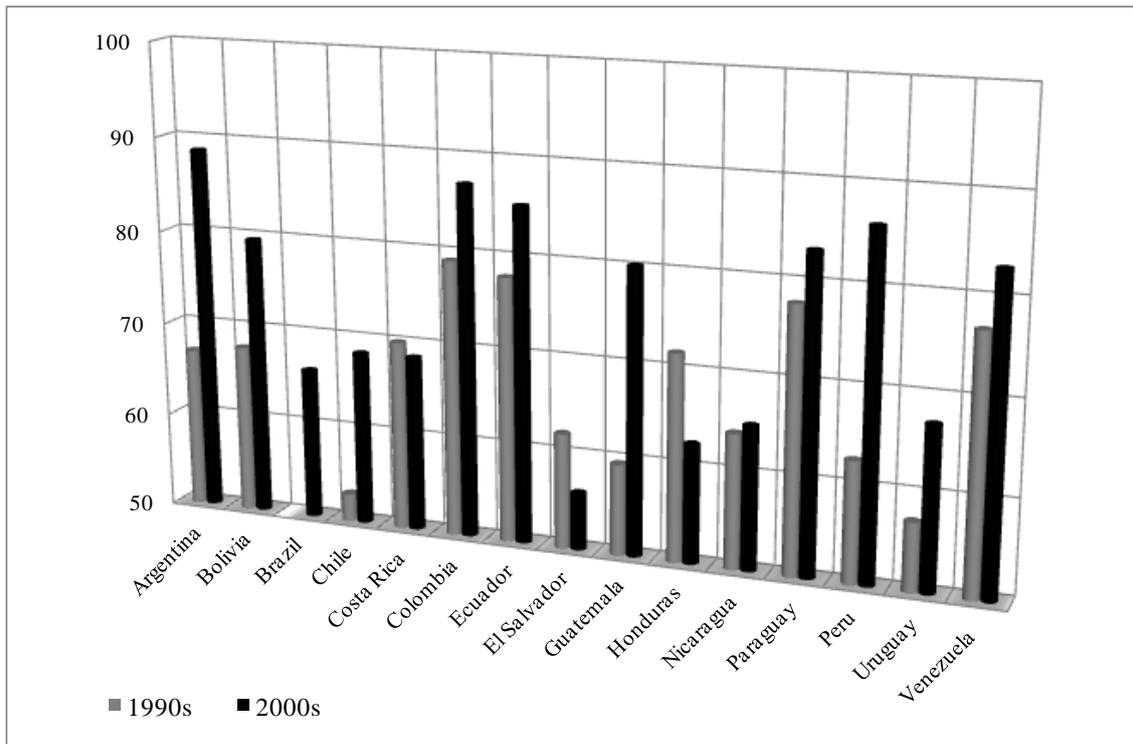


Sources: ILO and Household surveys

The increasing demand for a skilled and highly educated labour force has resulted, among other things, in policies to raise the overall educational level of the population. Most notable is the result in terms of demand where a high level of sex segregation persists among people with tertiary education, despite the relative equalization between men and women in overall level of educational attainment.

The results show that there are wage disparities between men and women with the same educational qualifications in all the Latin American countries analyzed and at all educational levels, but in particular among the more educated population.

**Figure 9. Gender gap among people with high levels of income and high levels of education**

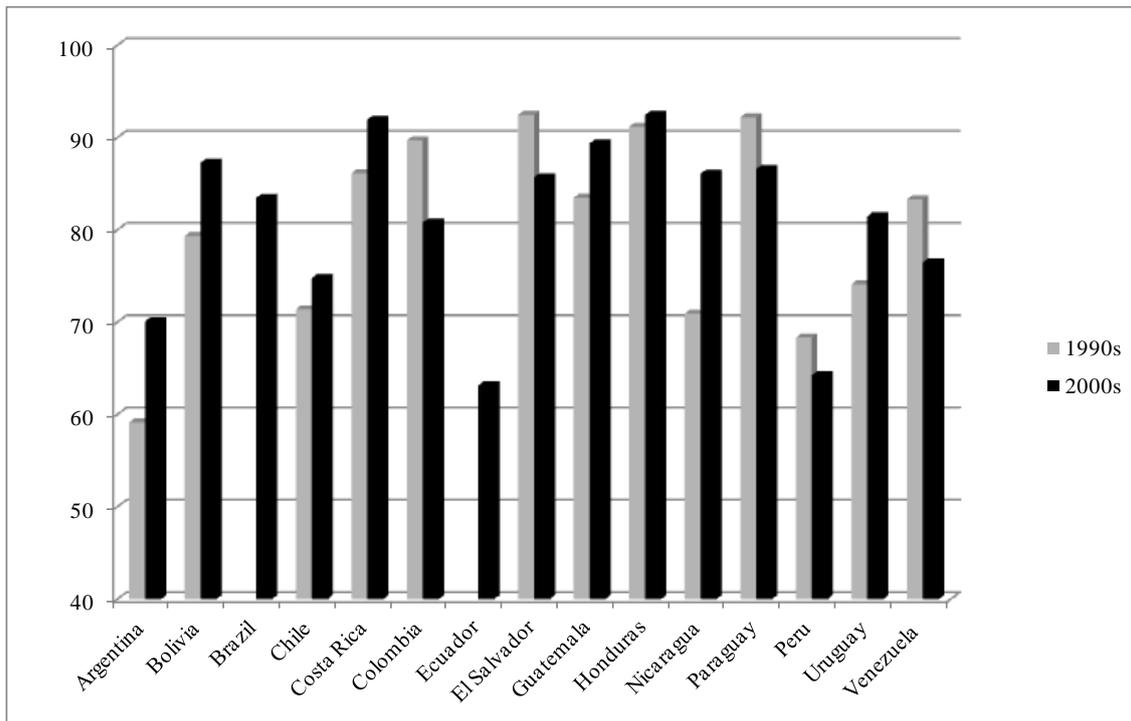


Sources: Household surveys

Our in-depth study of the wage gap between men and women shows that the biggest differences that remain are among the population with the highest levels of qualifications and incomes.

When we compare the evolution of the gender gap among the more educated population in the decade of 2000, we find that although the differences decrease, men's average wages stayed at around 25 percentage points higher than women's. At the end of that decade there were still large wage differentials between men and women with the same level of educational attainment

**Figure 10. Women with tertiary education in high income levels (percentages)**



Sources: Household surveys

In the light of these results we can ask an important question: whether these wage differences in the group of tertiary education are related to women's human capital being under-used in the labour market. One way to approach this is to examine the distribution of the most highly-educated peoples by their income levels. However, we have been able to confirm that 80 to 90 percent of people of both sexes with tertiary education levels are in the highest wage level (see Appendix).



## 6. Main results

In this paper our aim is to contribute to bringing the gender perspective into the discussion of the evolution of overall inequality. Our results enable us to draw a map of the dynamic of women's participation in the labour market and education in the Latin American countries in the 20th century.

First of all, the comparison between countries shows that the most unequal ones also have a greater gender wage gap. We can confirm there was a degree of inertia with regard to the different variables in the countries in our study. The most "advanced" countries in terms of gender equality are those in which women's labour market participation increased in the first half of the 20th century and that also have higher levels of educational attainment and a narrower gender gap. In the rest of the countries we find that women's entry into the labour market lagged behind that average in the first group, and that this was associated with less developed and less diverse economies.

These results suggest that the labour market structure is different in the two groups of countries and that a narrowing of the gender gap does not depend only on women's participation at the end of the period but also on path dependence, on the quality of the labour supply and on occupational segregation. Contrary to what we expected, training the women labour force does not produce corresponding rewards; the gender gap widens gradually throughout the increase in years of schooling, although this gap tends to diminish at the end of the period.

An analysis of the impact of the increasing incorporation of women into the labour market on overall inequality shows that while women's share of the wage bill has increased, they are far from equal with men. When we consider only women participating in economic activity, we find that they have gradually come up into the various occupational and wage levels and that inequality between them is worsening, but that it is also contributing to the fall in overall inequality.

Interestingly, the group that combines high wages with the highest average years of schooling is also the most resistant to this egalitarian trend. It seems that this group does



not obey a logic that is purely economic but that there is an invisible barrier against incorporating these new actors into decision-making positions.

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## **Appendix**



## A. Gender Inequality

| COUNTRY              | YEAR        | Inequality measures (%) |             |             | Income share (%) |             | Gender gap  |           |
|----------------------|-------------|-------------------------|-------------|-------------|------------------|-------------|-------------|-----------|
|                      |             | Total                   | Men         | Women       | Men              | Women       |             |           |
| 1990s                | Argentina   | 1992                    | 0.40        | 0.41        | 0.39             | 0.63        | 0.37        | 93        |
|                      | Bolivia     | 1997                    | 0.59        | 0.60        | 0.55             | 0.69        | 0.31        | 79        |
|                      | Chile       | 1990                    | 0.55        | 0.56        | 0.52             | 0.76        | 0.24        | 76        |
|                      | Colombia    | 1996                    | 0.49        | 0.49        | 0.47             | 0.65        | 0.35        | 90        |
|                      | Costa Rica  | 1992                    | 0.40        | 0.39        | 0.42             | 0.72        | 0.28        | 98        |
|                      | Ecuador     | 1995                    | 0.54        | 0.53        | 0.57             | 0.67        | 0.33        | 91        |
|                      | El Salvador | 1991                    | 0.52        | 0.51        | 0.53             | 0.66        | 0.34        | 86        |
|                      | Guatemala   | 2000                    | 0.58        | 0.56        | 0.60             | 0.67        | 0.33        | 85        |
|                      | Honduras    | 1997                    | 0.54        | 0.56        | 0.50             | 0.69        | 0.31        | 78        |
|                      | Nicaragua   | 1993                    | 0.54        | 0.57        | 0.49             | 0.36        | 0.34        | 90        |
|                      | Paraguay    | 1997                    | 0.54        | 0.55        | 0.53             | 0.66        | 0.34        | 88        |
|                      | Peru        | 1997                    | 0.53        | 0.54        | 0.52             | 0.67        | 0.33        | 82        |
|                      | Uruguay     | 1992                    | 0.45        | 0.45        | 0.45             | 0.64        | 0.36        | 83        |
|                      | Venezuela   | 1992                    | 0.37        | 0.36        | 0.36             | 0.70        | 0.30        | 86        |
| 2000s                | Argentina   | 2006                    | 0.43        | 0.42        | 0.43             | 0.60        | 0.40        | 100       |
|                      | Bolivia     | 2005                    | 0.58        | 0.58        | 0.58             | 0.67        | 0.33        | 88        |
|                      | Brazil      | 2008                    | 0.54        | 0.55        | 0.53             | 0.63        | 0.37        | 87        |
|                      | Chile       | 2006                    | 0.51        | 0.51        | 0.51             | 0.69        | 0.31        | 89        |
|                      | Costa Rica  | 2006                    | 0.43        | 0.43        | 0.45             | 0.67        | 0.33        | 99        |
|                      | Colombia    | 2006                    | 0.54        | 0.54        | 0.54             | 0.58        | 0.42        | 95        |
|                      | Ecuador     | 2006                    | 0.51        | 0.49        | 0.53             | 0.58        | 0.42        | 95        |
|                      | El Salvador | 2005                    | 0.45        | 0.46        | 0.45             | 0.58        | 0.42        | 89        |
|                      | Guatemala   | 2006                    | 0.52        | 0.52        | 0.51             | 0.67        | 0.33        | 100       |
|                      | Honduras    | 2006                    | 0.51        | 0.51        | 0.50             | 0.60        | 0.40        | 97        |
|                      | Nicaragua   | 2005                    | 0.52        | 0.55        | 0.45             | 0.70        | 0.30        | 85        |
|                      | Peru        | 2006                    | 0.52        | 0.53        | 0.51             | 0.67        | 0.33        | 81        |
| Paraguay             | 2007        | 0.57                    | 0.59        | 0.54        | 0.65             | 0.35        | 84          |           |
| Uruguay              | 2006        | 0.48                    | 0.49        | 0.47        | 0.58             | 0.42        | 93          |           |
| Venezuela            | 2006        | 0.38                    | 0.36        | 0.40        | 0.63             | 0.37        | 95          |           |
| <b>Average 1990s</b> |             |                         | <b>0.50</b> | <b>0.51</b> | <b>0.49</b>      | <b>0.66</b> | <b>0.32</b> | <b>86</b> |
| <b>Average 2000s</b> |             |                         | <b>0.50</b> | <b>0.50</b> | <b>0.49</b>      | <b>0.63</b> | <b>0.37</b> | <b>92</b> |

Sources: Household surveys



## B. Gender inequality in high incomes level and tertiary education population

| COUNTRY              | Inequality measures % |       |       | Income share % |       | Gender gap |
|----------------------|-----------------------|-------|-------|----------------|-------|------------|
|                      | Total                 | Men   | Women | Men            | Women |            |
| <b>1990s</b>         |                       |       |       |                |       |            |
| Argentina            | 0.35                  | 0.38  | 0.29  | 0.54           | 0.46  | 67         |
| Bolivia              | 0.41                  | 0.43  | 0.34  | 0.68           | 0.32  | 68         |
| Chile                | 0.49                  | 0.50  | 0.38  | 0.76           | 0.24  | 53         |
| Colombia             | 0.38                  | 0.40  | 0.32  | 0.63           | 0.37  | 70         |
| Costa Rica           | 0.31                  | 0.31  | 0.29  | 0.68           | 0.32  | 79         |
| Ecuador              | 0.38                  | 0.38  | 0.37  | 0.66           | 0.34  | 78         |
| El Salvador          | 0.40                  | 0.42  | 0.28  | 0.76           | 0.24  | 63         |
| Guatemala            | 0.44                  | 0.45  | 0.35  | 0.79           | 0.21  | 62         |
| Honduras             | 0.41                  | 0.43  | 0.30  | 0.72           | 0.28  | 60         |
| Nicaragua            | 0.47                  | 0.47  | 0.44  | 0.69           | 0.31  | 72         |
| Paraguay             | 0.44                  | 0.46  | 0.35  | 0.70           | 0.30  | 64         |
| Peru                 | 0.38                  | 0.40  | 0.32  | 0.66           | 0.34  | 78         |
| Uruguay              | 0.40                  | 0.40  | 0.32  | 0.61           | 0.39  | 57         |
| Venezuela            | 0.25                  | 0.25  | 0.23  | 0.63           | 0.37  | 77         |
| <b>2000s</b>         |                       |       |       |                |       |            |
| Argentina            | 0.28                  | 0.30  | 0.26  | 0.45           | 0.55  | 89         |
| Bolivia              | 0.38                  | 0.41  | 0.31  | 0.64           | 0.36  | 80         |
| Brazil               | 0.46                  | 0.47  | 0.42  | 0.57           | 0.43  | 66         |
| Chile                | 0.48                  | 0.50  | 0.42  | 0.63           | 0.37  | 68         |
| Costa Rica           | 0.33                  | 0.35  | 0.27  | 0.61           | 0.39  | 69         |
| Colombia             | 0.40                  | 0.41  | 0.39  | 0.51           | 0.49  | 87         |
| Ecuador              | 0.47                  | 0.43  | 0.51  | 0.59           | 0.41  | 85         |
| El Salvador          | 0.30                  | 0.34  | 0.26  | 0.50           | 0.50  | 86         |
| Guatemala            | 0.45                  | 0.46  | 0.32  | 0.77           | 0.23  | 56         |
| Honduras             | 0.36                  | 0.36  | 0.34  | 0.60           | 0.40  | 80         |
| Nicaragua            | 0.47                  | 0.50  | 0.40  | 0.67           | 0.33  | 63         |
| Paraguay             | 0.40                  | 0.43  | 0.34  | 0.62           | 0.38  | 65         |
| Peru                 | 0.38                  | 0.41  | 0.32  | 0.63           | 0.37  | 83         |
| Uruguay              | 0.39                  | 0.42  | 0.34  | 0.47           | 0.53  | 67         |
| Venezuela            | 0.28                  | 0.32  | 0.25  | 0.49           | 0.51  | 83         |
| <b>Average 1990s</b> | 39.23                 | 40.52 | 32.67 | 67.98          | 32.02 | 68         |
| <b>Average 2000s</b> | 38.96                 | 40.75 | 34.38 | 58.31          | 41.68 | 75         |

Sources: Household surveys



### C. Distribution of the population with tertiary education according to income

Sources:

| COUNTRY   | Income levels |        |      |       |        |      |      |
|-----------|---------------|--------|------|-------|--------|------|------|
|           | Men           |        |      | Women |        |      |      |
|           | Low           | Medium | High | Low   | Medium | High |      |
| 1990s     | Argentina     | 24.6   | 11.0 | 64.4  | 23.2   | 17.7 | 59.1 |
|           | Bolivia       | 2.5    | 16.7 | 80.8  | 3.3    | 17.4 | 79.3 |
|           | Chile         | 4.0    | 10.4 | 85.6  | 7.6    | 21.0 | 71.4 |
|           | Colombia      | 1.8    | 7.5  | 90.7  | 1.6    | 12.3 | 86.1 |
|           | Costa Rica    | 0.9    | 5.6  | 93.5  | 4.4    | 5.9  | 89.7 |
|           | El Salvador   | 2.5    | 3.1  | 94.4  | 1.1    | 6.5  | 92.5 |
|           | Guatemala     | 4.4    | 4.4  | 91.2  | 5.8    | 10.7 | 83.5 |
|           | Honduras      | 1.5    | 5.8  | 92.7  | 0.0    | 8.8  | 91.2 |
|           | Nicaragua     | 1.7    | 16.9 | 81.4  | 3.5    | 25.6 | 70.9 |
|           | Paraguay      | 0.6    | 1.7  | 97.8  | 0.0    | 7.8  | 92.2 |
|           | Peru          | 5.8    | 20.2 | 74.0  | 8.0    | 23.6 | 68.3 |
|           | Uruguay       | 5.8    | 14.2 | 80.0  | 4.6    | 21.3 | 74.1 |
|           | Venezuela     | 5.6    | 11.1 | 83.3  | 5.6    | 11.1 | 83.3 |
| 2000s     | Argentina     | 8.8    | 19.4 | 71.8  | 10.5   | 19.4 | 70.1 |
|           | Bolivia       | 2.4    | 7.5  | 90.1  | 3.7    | 9.0  | 87.3 |
|           | Brazil        | 4.6    | 9.5  | 85.9  | 4.6    | 12.0 | 83.5 |
|           | Chile         | 5.5    | 11.8 | 82.7  | 8.6    | 16.6 | 74.8 |
|           | Costa Rica    | 2.8    | 2.4  | 94.8  | 2.1    | 5.9  | 91.9 |
|           | Colombia      | 6.1    | 13.3 | 80.7  | 7.0    | 12.2 | 80.8 |
|           | Ecuador       | 13.1   | 15.6 | 71.3  | 21.1   | 15.8 | 63.2 |
|           | El Salvador   | 11.5   | 5.3  | 83.2  | 7.3    | 7.0  | 85.7 |
|           | Guatemala     | 1.4    | 3.4  | 95.2  | 5.6    | 5.0  | 89.4 |
|           | Honduras      | 4.8    | 5.3  | 89.9  | 4.3    | 3.2  | 92.5 |
|           | Nicaragua     | 4.5    | 6.2  | 89.3  | 4.7    | 9.2  | 86.1 |
|           | Paraguay      | 2.7    | 8.0  | 89.4  | 4.4    | 9.1  | 86.6 |
|           | Peru          | 8.0    | 21.1 | 70.9  | 12.5   | 23.2 | 64.3 |
|           | Uruguay       | 5.6    | 11.4 | 83.0  | 5.7    | 12.8 | 81.5 |
| Venezuela | 4.6           | 16.2   | 79.3 | 6.0   | 17.6   | 76.5 |      |

Household surveys

### D. Years of schooling by sex

|               | Argentina | Bolivia | Brazil | Chile | Colombia | Costa Rica | Ecuador | El Salvador | Guatemala | Honduras | Mexico | Nicaragua | Paraguay | Peru | Uruguay | Venezuela |      |
|---------------|-----------|---------|--------|-------|----------|------------|---------|-------------|-----------|----------|--------|-----------|----------|------|---------|-----------|------|
| <b>Female</b> | 1950      | 4.67    | 1.92   | 1.35  | 4.64     | 2.20       | 3.46    | 2.19        | 1.37      | 1.09     | 1.49   | 2.17      | 1,52     | 2,24 | 2,42    | 4,23      | 1,86 |
|               | 1960      | 5.51    | 2.36   | 1.89  | 5.07     | 2.95       | 3.86    | 2.93        | 1.77      | 1.23     | 1.80   | 2.53      | 1,62     | 3,06 | 2,79    | 4,83      | 2,71 |
|               | 1970      | 6.17    | 3.11   | 2.66  | 5.91     | 3.75       | 3.92    | 4.05        | 2.50      | 1.53     | 2.20   | 3.27      | 1,85     | 3,81 | 3,86    | 5,70      | 3,53 |
|               | 1980      | 7.25    | 4.53   | 2.73  | 6.88     | 4.80       | 6.13    | 5.90        | 3.29      | 2.57     | 3.56   | 4.49      | 2,49     | 4,93 | 5,47    | 6,88      | 5,37 |
|               | 1990      | 8.38    | 6.41   | 4.65  | 8.34     | 5.88       | 7.19    | 6.90        | 4.53      | 3.15     | 4.95   | 6.13      | 3,34     | 5,98 | 6,69    | 7,36      | 5,11 |
|               | 2000      | 8.84    | 7.58   | 6.57  | 8.94     | 6.84       | 7.98    | 7.16        | 6.30      | 3.74     | 5.87   | 7.36      | 4,55     | 6,09 | 7,76    | 8,02      | 6,02 |
|               | 2010      | 9.66    | 9.30   | 7.68  | 10.07    | 7.72       | 8.84    | 8.02        | 7.57      | 4.49     | 7.17   | 8.82      | 5,86     | 8,46 | 8,61    | 8,81      | 7,34 |
| <b>Male</b>   | 1950      | 4.94    | 3.09   | 1.66  | 4.97     | 2.47       | 3.64    | 2.93        | 1.69      | 1.59     | 1.85   | 2.70      | 1,60     | 3,20 | 3,78    | 4,35      | 2,50 |
|               | 1960      | 5.83    | 3.87   | 2.21  | 5.38     | 3.20       | 4.00    | 3.51        | 2.17      | 1.67     | 2.12   | 3.02      | 2,83     | 3,84 | 4,19    | 4,85      | 3,52 |
|               | 1970      | 6.43    | 4.95   | 2.96  | 6.26     | 4.10       | 3.96    | 4.75        | 3.10      | 1.99     | 2.54   | 3.86      | 4,28     | 4,49 | 5,34    | 5,66      | 3,95 |
|               | 1980      | 7.35    | 6.46   | 2.81  | 7.06     | 5.00       | 6.23    | 6.40        | 3.88      | 3.25     | 3.66   | 5.31      | 4,97     | 5,47 | 6,97    | 6,53      | 5,73 |
|               | 1990      | 8.30    | 8.15   | 4.55  | 8.46     | 6.11       | 7.29    | 7.40        | 4.84      | 3.99     | 5.03   | 6.69      | 5,42     | 6,28 | 7,75    | 7,61      | 5,11 |
|               | 2000      | 8.61    | 9.03   | 6.41  | 9.21     | 6.98       | 7.96    | 7.30        | 6.88      | 4.55     | 6.41   | 7.90      | 6,32     | 6,41 | 8,72    | 8,17      | 5,68 |
|               | 2010      | 9.16    | 10.46  | 7.41  | 10.27    | 7.78       | 8.64    | 8.34        | 8.21      | 5.36     | 7.43   | 9.32      | 7,48     | 8,56 | 9,25    | 8,29      | 6,92 |

Sources: Barro and Lee (2012)