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Latin American Labor Markets in the 1990s: Deciphering the Decade

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LATIN AMERICAN LABOR MARKETS IN THE 1990s: DECIPHERING THE DECADE

BY

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Abstract

This paper analyzes the recent performance of Latin American labor markets. We find that unemployment rates are on the rise in most countries and sub-regions of Latin America. The rise in unemployment over the 1990s is not driven by a higher proportion of women, adults or urban workers in the labor force, nor can it be attributed to an increasing demand for skilled workers. In a few countries, increasing unemployment is caused by falling employment rates. In the rest, unemployment rates can be explained by a large rise in participation that has not been fully absorbed by increases in employment. We also find that a large and in many countries growing proportion of workers are employed at jobs that pay very low wages. Finally, returns to higher education are increasing while returns to secondary education are declining in almost all countries.

Introduction¹

Opportunities in the labor market are critical to the well-being of individuals and families in Latin America since total household income there is more dependent on labor earnings than in other regions. The importance of labor markets has not escaped the minds of Latin Americans. According to the Latinobarómetro, a public opinion survey conducted in 17 Latin American countries, labor market troubles are consistently reported as the main problem in the region.² From a list of 20 problems including corruption, poor education, poverty and violence, 40 percent of respondents in the region as a whole reported that a labor market problem was the most pressing for the country. Specifically, 23 percent reported that unemployment was the biggest problem facing the country, with 9 percent reporting “instability in the labor market” and 8 percent reporting “low salaries” as the leading problem.

This paper departs from case studies of particular labor markets and attempts to take a global view of the region as a whole in the hopes of discerning important patterns and intertemporal trends from comparative data. Using data that focuses on the decade of the 1990s, we find that LAC labor markets as a whole are very dynamic, since they have absorbed remarkable quantities of new workers. However, rising unemployment rates in the region are found to reflect a limited capacity to absorb the increased supply in some sub-regions. While unemployment has generally been “democratically” spread across groups, there is a narrowing of the ratio of youth to working age unemployment and of the ratio of urban to rural unemployment. In other words, youth unemployment and urban unemployment did not rise as fast as overall unemployment. A strong demand for women in the labor force is associated with rising relative wages and higher labor force participation. We document the dispersion in wage levels across the region. Average wages, measured in purchasing power parity (PPP)-adjusted U.S. dollars, remained constant or declined throughout the decade both in the Mexico and Central America region as well as in the Andean region. We also document the dispersion across the region in the share of workers earning “poverty wages,” i.e., under a PPP-adjusted threshold.

¹ For comments, please address Suzanned@iadb.org, Carmenpag@iadb.org or OlgaLuciaj@iadb.org. The authors wish to thank Javier Torres for his excellent research assistance. This document reflects the opinions of the authors and does not represent the opinions of the Inter-American Development Bank or its Board of Directors.

Low productivity, even among skilled workers, is shown to be a tremendous challenge for numerous countries. Finally, we find that for most countries, wage returns to secondary education declined, while in some but not all countries, wage returns to tertiary education increased.

Overall, our findings suggest important sub-regional differences in labor market behavior. While, in the Mexican and Central American (MCA) labor markets, large expansions in participation rates have been met without large increases in unemployment rates, this has not been the case in the Andean (AND) and Southern Cone (SC) regions. Rather, in both sub-regions the labor markets have not been able to absorb a large number of new workers. The “flip side” of this development is a greater degree of downward wage flexibility in MCA than in the other sub-regions.

We begin with a brief description of the data in Section 1, and the paper proceeds as follows. Section 2 examines unemployment. Section 3 examines employment and participation, explicitly linking rising unemployment with the growth in participation. Section 4 examines wages, including average wages, “poverty wages” and wage returns to schooling. Section 5 summarizes the major challenges for the next decade and presents directions for further research.

1. Data

We use individual-level household survey data to create and analyze labor market aggregates by age, schooling levels, region of residence, and gender for 18 countries in Latin America. Table 1.1 lists the names and years of the surveys. Over the 1990s time-consistent surveys are available for early, middle and late periods for 10 countries.³ The definition of early, mid, and late 1990s for each country is detailed in Table 1.2. Particular care is taken to make the constructed variables comparable over time and across countries. To facilitate comparisons we have categorized the countries into three regions when we look over time. The Southern Cone

² The Latinobarómetro is a public opinion survey conducted in 17 Latin American countries by the non-profit Corporación Latinobarómetro. The general aim of the Latinobarómetro is to provide quantitative information about the opinions and attitudes of Latin Americans.

³ The surveys and years are the same as used in Duryea, Cox Edwards, and Ureta (2001). We include Bolivia in the sections examining trends so that the Andean region is not underrepresented in the study. Unfortunately, time-consistent data over the 1990s for the two Caribbean countries included (Dominican Republic and Jamaica) are not available.

(SC) comprises Brazil, Chile and Uruguay. The Mexico-Central American (MCA) region includes Costa Rica, Honduras, Mexico and Panama, whereas the Andean (AND) region includes Bolivia, Colombia, Venezuela, and Peru.

The following sections describe the patterns encountered in this data for a set of countries of the Latin America region. When required, we complement the aggregate data constructed from household surveys with aggregate data from sources such as the ILO or the OECD.

2. A Gloomy Unemployment Outlook in the 1990s, with a Few Bright Spots

The outlook regarding unemployment in Latin America for the 1990s was bleak. With the exception of a few bright spots, most countries in the region experienced a steadily increase in unemployment rates. This has caused government authorities and experts throughout the region to look for answers to some critical questions. What explains the rise in unemployment over the period? Was it a common trait across demographic groups? Or, is there any particular group that can claim the burden? Can we identify types of workers who find themselves most at risk?

We make an attempt to shed some light on these issues. The first section presents a regional perspective of unemployment for three periods: the early, middle and late 1990s. The section then turns to an analysis of unemployment rates across groups of workers. Our study focuses on youth versus adults, women versus men and rural versus urban areas with an eye toward understanding the salient features and trends of unemployment of these groups. Finally, and drawing extensively on Duryea and Pagés (2001a), we present simple decompositions to explore whether shifting shares of young, female or urban workers in the labor force can account for increases in unemployment rates in the 1990s.

We find that unemployment increased for all demographic groups in the 1990s and not just for the groups that traditionally have had high unemployment rates (e.g., youth, women and urban workers). Moreover, the relative importance of youth unemployment and urban unemployment decreased over the period. In other words, unemployment rates of youth and urban workers did not rise as fast as overall unemployment in the 1990s. No consistent trends were found regarding the relationship between gender and unemployment. Finally, we find that the changing structure of the labor force does not explain the rise in unemployment.

Unemployment Rates Are on the Rise

In industrial countries, unemployment rates are the main indicator used in tracking the performance of the labor market. Although this is not necessarily the case in developing countries' labor markets, it is nonetheless convenient to start our analysis by examining the performance of unemployment rates during the 1990s.

Our aggregate variables constructed at the national level from individual country household surveys suggest that unemployment rates are on the rise in most countries. The findings also suggest different paces in the growth of unemployment for each of the sub-regions: sharp increases in the Andean region, especially in the late 1990s, moderate increases or declining unemployment rates in the Mexico-Central American region, and moderate to sharp increases in the Southern Cone region.

We classify as unemployed those individuals who are not employed but are actively looking for a job in the reference week of the survey. The aggregate open unemployment rate is then defined as the percentage of workers between the ages of 15-64 who were actively seeking work out of those who were employed or searching in the reference week. Some countries are eliminated from the analysis because their household surveys do not allow the unemployment variable to be constructed in a comparable manner.⁴ Employment is broadly defined as market type activities linked to the reference week. The definition of labor force participation includes those who were actively seeking employment in the reference period along with those who were employed.

With the exception of Bolivia, unemployment rates have increased in all six South American countries during the 1990s, as can be seen in Figures 2.1 and 2.2. Some countries have experienced substantial increases. In Colombia, unemployment rates increased from 7.1 percent in the early 1990s to 16.7 percent at the end of the decade. In Venezuela unemployment rose from 4.8 percent to 10.3 percent during the same period. In Chile, unemployment rose from 5.6 percent to 9.9 percent, and in Brazil, a country that during the first half of the 1990s experienced low and stable unemployment rates, unemployment rates increased from 6.6 percent to 10.3 percent. Although we do not have enough household surveys for Argentina to describe

the evolution of unemployment rates during the decade, ILO data shows that unemployment rates increased from 7.5 percent in 1990 to 17.5 percent in 1995 and to 15.4 percent in 2000. This suggests a rising trend for Argentina as well. Similarly, our household survey data do not allow good time series coverage for the 1990s for Ecuador and Paraguay, either, but ILO data confirm that unemployment increased substantially in both countries. In Ecuador unemployment increased from 6.1 percent in 1990 to 7.7 percent in 1995 and to 15.1 percent in 1999, while in Paraguay it remained rather constant around 5 percent until 1995 but had reached 9.4 percent in 1999.

In contrast, unemployment rates increased moderately or declined throughout Central America. In two countries, Panama, and Nicaragua, unemployment rates declined substantially.⁵ In the rest, they remained fairly stable at low levels. It is quite surprising that Mexico, which suffered a substantial blow to its economy in the 1995 Tequila Crisis, experienced only a minor increase in unemployment rates. It is also surprising that two years later the country's recovery was complete.

Overall, Mexico and Central America, with an average unemployment rate of 4.22 percent (3.7 percent for men and 5.12 percent for women), enjoy a better situation than the Andean countries or the Southern Cone, which in the late 1990s had an average unemployment rate of 9.0 percent (7.9 percent for men and 10.49 percent for women) and 9.94 percent (8.25 percent for men and 12.34 percent for women), respectively. Although the greatest increases in unemployment during the 1990s were seen in the Andean sub-region, it did not have the highest average unemployment rate when compared to the Southern Cone region. It should be noted that the weighted-average unemployment rate for the Southern Cone countries would be higher than the unweighted unemployment rate as Brazil, the largest economy in the region, experienced a sharp increase in unemployment during the 1990s. On the other hand, the weighted average unemployment rate for the Mexico-Central American region would be lower than the unweighted average unemployment rate as Mexico, the second largest economy in the region, experienced a minor increase in unemployment over the period.

⁴ For example, the Dominican Republic is excluded from the analysis because in this country the reference period for the 1998 survey is one month, which greatly inflates the unemployment rate relative to countries that use a reference period of one week.

⁵ Nicaragua is not shown in the figure.

Overall, unemployment in the region rose from 5.3 percent in the early 1990s to 7.5 percent at the end of the decade.⁶ These rates are below those for the European Union (EU), which in 1999 and 2000 averaged 9.2 percent and 8.3 percent, respectively, down from a peak of 11.1 percent in 1994 (see Figure 2.1 for LAC and OECD, 1996, for the EU). However, it should be noted that unlike the EU, most Latin American workers do not have access to unemployment insurance. This feature reduces their incentives to remain unemployed, but it substantially increases the welfare cost of unemployment.

A further question is how the Region compares with the United States, its main trading partner. Overall, unemployment outcomes in the United States were remarkable in the 1990s, as unemployment rates declined continuously from 7.5 percent in 1992 to less than 4.0 percent in 2000.⁷ The geographical proximity of the Mexico-Central American region, which favors migration (both legal and illegal) to North America, and historical links may play a role in explaining the better unemployment outcomes of the Mexico and Central American region in the 1990s compared to the Andean and Southern Cone countries. Large numbers of unemployed workers from the Mexican-Central American region could be absorbed by a large and buoyant economy in demand of labor. But good news from the U.S. stopped coming when the Bureau of Labor Statistics announced that unemployment in the third quarter of 2001 had started to increase. Unemployment outcomes in October 2001 continued along these trends as unemployment figures show the largest monthly increase in two decades. Although unemployment rates in the U.S. remain comparatively low compared to the European Union and Japan, the pace has started to pick up. The downward spiral is shared among developed nations: Japan is in a recession as well as some countries of East Asia, and growth has started to slow down in European countries.

The Changing Structure of the Labor Force Does Not Explain the Rise in Unemployment

In the previous section we documented that unemployment rates are on the rise in the region. Now we ask whether the increase in unemployment can be caused by an increase in the participation in the labor force of demographic groups with higher than average unemployment

⁶ The average unemployment rate in the region in the late 1990s decreases to 6.71 percent when all countries for which data is available are included.

rates. Youth, women and groups living in urban areas experienced higher than average unemployment rates than adults, men and groups living in rural areas, respectively, in the 1990s. Table 2.1a presents the differences in unemployment rates between groups for the beginning and the end of the 1990s. Table 2.1b presents the relative importance of young, female and urban unemployment for the beginning and the end of the 1990s. Table 2.2 presents the change in groups' share of the Economically Active Population over time. The main results can be summarized as follows:

- Unemployment increases for all demographic groups during the 1990s: for men and women, for youth and adults, for workers living in urban areas as well as for workers living in rural areas and, for workers with different levels of education.
- The relative importance of youth, female and urban unemployment decreases from the beginning of the 1990s to the end of the 1990s.

Youth versus Adults

Unemployment rates among the population aged 15-29 are on average 6 percentage points higher than for the 30-64 age group. Over the period, sharp increases in the unemployment rate among youth aged 15-18 were seen in the Andean and Southern Cone sub-regions, as shown in Figure 2.7. On the other hand, the decline of youth in the working population in most countries, as depicted in Figure 2.8, and the reduction in youth's share of economically active population over the period, as shown in Table 2.2, reduces the share of youth unemployment in total unemployment, as shown in Figure 2.9.

The relative importance of youth unemployment, measured as the ratio of youth unemployment rate to adult unemployment rate, is a global problem. Using ILO data, this ratio is, on average, 2.0 for European countries and 2.6 for the U.S. The average ratios of 3.5 for the beginning of the period and 2.85 for the end of the period show a strong youth unemployment gap for the region (see Figure 2.10 for LAC and OECD, 1996, for the EU).

⁷ For 1992, data were drawn from the ILO's *Key Labor Market Statistics*, 2000.

Female versus Male Unemployment

Higher unemployment rates were also seen among women during the 1990s (see Figure 2.3). For the late 1990s, the average female unemployment rate was 5.12 percent for the Mexico-Central America region, 10.49 percent for the Andean countries and 12.34 percent for the Southern Cone countries. The average unemployment rate for men was 3.77 percent in the Mexico-Central America region, 7.94 percent in the Andean region and 8.25 percent in the Southern Cone region. Analyzing the share of women who are employed suggests that, for most countries, the increase in labor force participation rates is not due to increases in unemployment but, rather, to increases in the share of women actively participating in market type work.⁸ As shown in Table 2.1a, gender is less correlated with unemployment among workers 15-64 years old. Higher unemployment rates for women were seen in nine countries out of 12 (see Figures 2.3 and 2.4).

The relative importance of female unemployment, measured as the ratio of the female unemployment rate to the male unemployment rate, as presented in Table 2.1b, shows a moderate decreasing female unemployment gap for most countries in the region.

Urban versus Rural Unemployment

The increasing urbanization of the labor force in the region is depicted in Figures 2.11 and 2.13. However, the net impact of urbanization on changes in aggregate unemployment rates is negligible and will be reported below.

Unemployment rates for those living in urban areas are on average 4 percentage points higher in urban areas than in rural areas over the period (see Figures 2.5 and 2.6). In the late 1990s, the average urban unemployment rate was 5.08 percent in the Mexico-Central America region, 11.02 percent in the Andean countries and 10.71 percent in the Southern Cone countries. Lower rural average unemployment rates in the late 1990s were seen in the Mexico-Central America region (4.22 percent), in the Southern Cone countries (9.92 percent) and the Andean region (9.01 percent). The relative importance of urban unemployment, measured as the ratio of urban unemployment rate to the rural unemployment rate, shows a strong urban gap for all countries in Table 1.1b, with the exception of Costa Rica. A remarkable reduction in the gap was seen in Peru.

We have documented the rise in unemployment rates for youth, women and groups living in urban areas over the period. Drawing extensively on Duryea and Pagés (2001a), we report the main findings of simple decompositions used to explore whether a change in the structure of the labor force explains the rises in unemployment documented above. The three identities used to decompose changes in unemployment rates are presented in Appendix A.1 with the main results reported in Table 2.3. The first identity explores the role of age in the increase of unemployment, the second and third identities explore the role of gender and urbanization, respectively.

The results of decompositions are reported in Table 2.3. Changes between the beginning and the end of the 1990s in unemployment rates by age, gender and area of residence are decomposed into two terms that can be expressed either in percentage points or as a percentage explaining the changes. The first term tells us whether the change in the unemployment rate is explained by a change in the structure of age, gender or area of residence within the economically active population. The second term tells us whether the change in the unemployment rate is explained by changes within groups.

The potential of changes in the age structure to explain the rise in aggregate unemployment rates is limited because the share of the young in the labor force is falling in most countries (except Honduras, Venezuela and Uruguay). This change in the composition of the labor force is not due to a shift in the activities of the youth (for instance, due to increased schooling) but instead mirrors overall demographic trends. According to the UN 1998 population data release, the share of the population age 30 to 64 is rising faster than the share of the population age 15 to 29 in all countries (see Figure 2.2). Therefore, these trends in the age structure can account for a *decline*, not an increase, in aggregate unemployment rates. Indeed, the results reported in Table 2.3 suggest that the decline in the proportion of youth explains 9 percent and 13 percent of the decline in unemployment rates in Panama and Mexico, respectively. It also explains 10 percent of the increase in unemployment rates in Uruguay. For the rest of the countries, our computations suggest that the increase in unemployment rates would have been even higher had the proportion of young workers not declined during the 1990s.

Changes in the residential makeup or gender structure of the labor force are not the driving forces of changes in aggregate unemployment rates, either. Instead, increases in the

⁸ See Duryea, Cox Edwards and Ureta (2001).

within-group rates explain the lion's share of these changes (see Table 2.3, Panels B and C). Thus although the labor force is increasingly female and urbanized, increasing feminization never explains more than 5 percent of the aggregate increase. The increasing urbanization of the labor force explains more than 5 percent of the overall increase in only one country, (Honduras).⁹ Finally, in Panama the decline in unemployment rates would have been even more pronounced had the labor force not become more urbanized.

Overall these results indicate that unemployment rates in the region are increasing not as a result of changes in the composition of the labor force but instead because of increases in the unemployment rate within groups. In the following section we explore whether these changes in aggregate and within-group unemployment are better explained by changes in participation or employment rates.

3. Employment and Participation: A Large Rise in Participation Not Fully Absorbed by the Labor Market

Latin America is experiencing high and increasing levels of unemployment. There are different combinations of factors that might give rise to this situation. Increasing unemployment might be caused by a decline in the demand for labor as the level of economic activity declines or the cost of labor, relative to other factors, increases. Alternatively, soaring unemployment might be the result of increased rates of participation that are not fully absorbed by the labor market. In this section, we describe the patterns of labor market participation and employment rates and show that changes in participation account for a large share of changes in unemployment rates.

Participation Increases for Most Demographic Groups

Average participation rates in Latin America (66 percent) are not far from the average participation rate in OECD countries (70 percent).¹⁰ However, the aggregate rate masks important differences in female participation. While men have similar participation rates in both regions (83 percent in LA versus 81 percent in the OECD) average female participation is 49

⁹ The declining share of urban population in Peru is likely a sampling frame error with respect to the household surveys, but nevertheless, an increasingly urbanized economically active population does not explain the 2 percentage point increase in overall unemployment found in the 1990s.

¹⁰ Data for OECD countries is obtained from OECD (2001).

percent in Latin America and 61 percent in OECD countries. However, it is worth noting that there are important differences within OECD countries as well, and that for a set of countries in that region, most notably the countries in the South of Europe (Spain, Italy, Greece), female participation rates are comparable to those prevalent in Latin America.¹¹

During the 1990s, total participation rates have increased throughout the region. This is true in all countries and in all sub-regions: participation rates have increased from 58 percent to 63 percent in the Mexico and Central America region, from 62 percent to 68 percent in the Andean region, and from 65 percent to 67 percent in the Southern Cone region. These statistics showcase that participation rates are increasing faster in the Andean and Central America region than in the Southern Cone region. At the regional level, total participation increased by 5.6 percentage points from the early to the late 1990s.

Overall participation statistics mask some important differences in the evolution of female and male participation rates. Throughout the region, female participation rates have increased at a very rapid pace; the average participation increase is 7.1 percentage points. However, in Costa Rica, Honduras and Uruguay the rise in female participation is above 9 percentage points. By comparison, male participation rates have been quite stable, and in some countries they have even declined. This is the case in Chile, Colombia and Brazil, countries that have experienced substantial increases in unemployment rates. On average, male participation increased from 81 percent to 83 percent.

Regarding participation by age group, there has been a decline in the participation rates of workers 15 to 19 years old relative to average participation rates. This is particularly true for young women (see Figure 3.5). This development cannot be attributed to the aging of the population, since participation measures are already scaled by the relative size of the population in each age group. Instead, this trend reflects the ongoing increase in secondary schooling enrollment, which is higher for young women. Another common trend across countries is the relative decline of the participation of prime-age men (30 to 45) relative to the participation rates of all men. There are no clear trends regarding changes in the participation rates for other age groups. Thus, for example, while the participation rates of people 20 to 29 years old declines relative to the participation rates of the overall population in half of the countries, this relative

¹¹ For instance, in 1999 female participation was 45.6 percent in Italy, 49.6 in Greece and 49.9 in Spain.

participation increases in the other half. Overall, the patterns seems to be one in which youth workers are turning more to school and less to work and participation in the labor market is less dominated by prime-age males.

Participation rates tend to increase with skill levels. Thus, on average participation rates of workers with higher education are 8 percentage points larger than participation rates for low skill workers.

Participation has increased across all levels of skill. On average, participation for workers with primary education has increased from 65.3 percent to 68.7 percent. The only country that escapes this pattern is Brazil, where participation rates for primary-educated workers have declined slightly. Similarly, participation for workers with secondary education increased from 70 percent to 73 percent, while the participation of workers with tertiary education increased from 73 percent to 76 percent, with again only Brazil exhibiting a reverse trend. It is noteworthy that the increase in participation has been quite similar across skill groups and therefore there is little evidence that workers with low skill levels are abandoning the labor force.

The labor force grew faster in urban than in rural areas, with the sole exception of Brazil (where participation in urban areas increased but participation in rural areas declined). However, the difference in growth in rural versus rural areas is not that large, which suggests that (net) migration flows in the region are of moderate size.

Summarizing, participation rates have increased for most groups of workers. The rate of increase has been much faster for women than for men, while participation has grown relatively slower among teen workers (15 to 18) and male prime-age workers. Finally, we find that participation rates have increased at a similar pace among all skill levels and at a faster rate among urban than among rural dwellers.

Employment Increases for Women but in Many Countries Declines for Men

Large increases in participation, like those documented in the former sub-section, are likely to cause unemployment if they are not assimilated into the labor market. However, unemployment rates will fare even worse if increases in participation coexist with a decline in employment rates. How did employment rates fare in the 1990s?

Average total employment rates in Latin America (61 percent) are only somewhat lower than those registered in the EU (62.4 percent) or in the OECD region (65 percent); however, employment in Latin America is more biased towards male workers. Thus, the average female employment rate in Latin America is 45 percent, while in the OECD this rate is 56.2 percent. In contrast, the average employment rate for males 15 to 65 is 77 percent in Latin America, 76 percent in OECD countries, and 72 percent in the EU.

During the 1990s, total employment rates increased in all Central American countries in our sample and in Mexico. They also increased in three out of the four countries classified in the Andean region. The only exception to this trend is Colombia, which suffered a decline in employment rates. Employment rates did not follow a consistent pattern in the Southern Cone region, either. While they increased in Uruguay, they declined in Brazil and Chile. These differences are masked in the average for the Southern Cone, which shows a constant employment rate during the 1990s. On average, employment rates increased from 58 percent of the population in the early 1990s to 61 percent at the end of the decade.

The aggregate evolution of employment hides significant differences between employment rates for women and men. Thus, while on average, male employment rates remained constant throughout the decade, they increased by five percentage points for women. Moreover, while in some countries, most notably, Chile, Colombia, Venezuela and Brazil, female and male employment rates declined substantially, female employment rates declined only in Colombia. These differences are even more accentuated if we compare women and men between 30 and 45. In this group, female employment rates increase in all countries and sub-regions, while male employment rates decline in Mexico, Colombia, Peru, Venezuela, Brazil, Chile and Uruguay. On average, male employment to population rates decline from 93.1 percent to 92 percent by the end of the decade.

There are No Clear Trends in Employment by Skill or Age, but the Urban-Rural Employment Gap Declines

Employment rates by age groups tend to show the same patterns as overall employment rates, with the exception of very young workers (ages 15 to 18), particularly young women, whose employment rates are declining relative to the total. These patterns are consistent with the higher

levels of schooling and suggest that more workers, especially women, are postponing their entry into the labor market. Regarding employment trends by urban and rural areas, across countries, employment rates in urban areas tend to be larger than in rural ones. However, both rates are converging at a fast rate since, with the exceptions of Colombia and Peru, employment is growing faster in urban areas.

There are no clear trends regarding employment by skill level. Although on average employment rates tend to increase with education levels, there are many exceptions to this rule. Despite recent concerns about the employment prospects of unskilled workers, there is no clear evidence that employment is shifting towards skilled workers. In half of the countries employment rates among workers with primary education increased faster (or declined less) than employment rates for workers with secondary or tertiary schooling, while the reverse is true for the other half. Indeed, for workers 30 to 45 years old, employment rates for primary workers are increasing at a faster pace (or declining less) than for any other group.

Finally, it is customary to complete a description of employment patterns with an analysis of the evolution of the formal and the informal sector as measured by firm size. This distinction is considered relevant because the pattern of employment in the informal sector is believed to reflect the true state of the labor market in ways that the unemployment rate cannot capture. However, recent research suggest that this view might be misguided and that in many instances an increase in the share of informal employment, as measured by firm size, might indeed capture an increase of opportunities in a thriving small firm sector.¹² In view of this criticism we develop an alternative measure of “bad” jobs to capture the employment patterns of workers in the lower end of the distribution. This concept and the dynamics of “bad” jobs are presented in Section 4 below.

Overall, Increases in Participation Account for a Large Share of the Rise in Unemployment

In most countries and for most groups, participation and employment increase. Therefore, from an accounting perspective, the increase in unemployment experienced in the region seems to be caused by a massive expansion in labor supply that the labor market could not absorb. In a related article, Duryea and Pagés (2001a) decompose how much the changes in unemployment

are associated with increasing participation or declining employment rates. They find that increases in participation are behind most of the increase in aggregate unemployment rates. Although in a few countries (Bolivia, Honduras, Mexico and Panama) large increases in participation have been accommodated with even higher rises in employment rates, in others (Costa Rica, Peru, Uruguay and Venezuela) the expansion in labor supply has not been absorbed. In contrast, only in three countries (Brazil, Chile and Colombia) has the rise in unemployment experienced during the 1990s been accompanied by a decline in employment rates.

Indeed, had participation rates remained constant, instead of an average rise in unemployment rates of 2.17 percentage points, the region would have experienced a decline in unemployment of 5.18 percentage points. This underscores the importance of participation movements in the region. In fact, an important feature of Latin America labor markets is that unemployment changes are only a small fraction of net participation and employment flows. Therefore, unemployment fluctuations are only the tip of the iceberg in the large employment and participation flows occurring in Latin American labor markets.

For Prime-Age Men, Unemployment is Driven by Declining Employment Rates

The simultaneous occurrence of a large expansion in participation (particularly for women) and the gloomy picture of unemployment suggest that many secondary earners are pushed into the labor market to supplement declining family incomes. Duryea and Pagés (2001a) decompose the change in unemployment for prime-age men into changes in participation and changes in employment and find that for this group of workers the rise in unemployment is indeed driven by a decline in employment rates (although, in some countries, participation increases for this group as well). How likely is it that this large increase in female participation is driven by rising male unemployment rates? In the next section we explore this question in more detail by examining the evolution of wages. If women are pushed into the labor market by declining family incomes, their wages (relative to the beginning of the period and relative to men) are likely to fall due to the increase in supply. Instead, if women are pulled into the labor market by increasing employment opportunities their wages are likely to increase (relative to men and to former periods).

¹² See for instance, Maloney and Levenson (1998) and Maloney (1999).

4. Earnings

Average Hourly Wages

After adjusting for PPP (purchasing power parity), Figure 4.1 shows that average wages in the region vary from a low of less than \$1 an hour in Honduras, to over \$2 an hour in Panama, Argentina, Mexico and Chile.¹³ Table 4.1 shows that on average, rural wages are 80 percent the level of urban wages, with a low of 50 percent in Guatemala and 90 percent or more in Honduras, Brazil and Chile. The ratio of female to male wages is 0.9 across the 18 countries, with female wages exceptionally low in Honduras, while women who work earn the same per hour as men, or more, in Bolivia, Costa Rica, Colombia and Paraguay.

Evolution of Average Wages During the 1990s

Average wages (measured in PPP-adjusted U.S. dollars) remained constant or declined throughout the decade both in the Mexico and Central America region and in the Andean region, with the exception of Panama (see Figure 4.2). The decline was very pronounced in Mexico—where wages dipped in 1996 and recovered partially afterwards—and in Costa Rica, Venezuela, Honduras, and Colombia. In Bolivia and Peru, the other two countries in the two sub-regions, wages in dollars have not changed much relative to their values at the beginning of the decade. In sharp contrast, wages in dollars increased in the Southern Cone, in particular in Chile and Brazil, relative to their values in the early 1990s despite the sharp increase in unemployment registered in this group of countries. Nonetheless, wages did decline somewhat towards the end of the decade in Brazil and Chile.

Gender

Duryea, Cox Edwards and Ureta (2001) document the general decline in the female wage penalty over the decade. After controlling for the education and potential experience of workers, they find that the wage gap fell by 7 percentage points over the decade, so that over the decade women's wages rose from lagging men's by 25 percent to lagging by 17 percent. Note that women's wages lag men's more after controlling for observed skills because female workers

¹³ Hourly wages from primary job is the dependent variable except for Colombia and Ecuador in which it is hourly wages from all jobs.

generally have higher average years of schooling than their male counterparts. Although the gender gap in wages is steadily declining in the Andean and Southern Cone countries, no evidence is found for this trend in the MCA region.

Returns to Schooling

Table 4.2 reports the marginal returns to completing an additional year of schooling for primary, secondary and tertiary education for the 1990s across a sample of countries of the region as shown in Duryea and Pages (2001a) for samples of urban males ages 30-50. For example, in Mexico an additional year of secondary schooling increases the hourly wage by 10 percent. In the region, the average marginal wage effects of primary education are 7.8 percent, with the highest returns to primary education in Brazil (14 percent) and the lowest returns in Honduras (1 percent). The average return to secondary education is 9.6 percent, with the lowest rate found in Bolivia and the highest in Brazil. Finally, the average marginal wage effect of one extra year of tertiary education is quite high (17.3 percent), with the highest rate attained in Chile (23.79 percent in 1998) and the lowest in Honduras (10 percent).

Using fixed effect regression methodology, Duryea and Pages (2001a) demonstrate that returns to secondary education fall slightly in the region while returns to tertiary education rise. In Figure 4.3a, the Southern Cone countries as well as Peru are shown to be exceptions to the trend in secondary returns. Figure 4.3b shows that regarding increasing returns to tertiary schooling, again the Mexico-Central America region is shown to stand apart from the trends in the Southern Cone and Andean regions.

While many papers have focused on increasing skill gaps, the changes observed over the decade are not seen as overwhelmingly problematic. In fact, falling returns to secondary schooling in response to rising supplies could have detrimental effects such as reducing the incentive to achieve schooling and suppressing wages. The fact that Chile continues to have high returns to secondary school, while returns have risen in Uruguay, even as the supply of workers completing at least the secondary has risen to high levels, suggests that by providing a high quality of schooling, workers with more schooling are more productive and can command higher wages in the labor market.

Incidence of “Poor” Jobs

As previously noted, rather than focus on classifications of “informality” that are not available across the surveys and may include attractive characteristics of jobs, we aim to proxy the incidence of “bad” jobs through measuring low wages. We classify workers as individuals employed in low paid jobs if they earn one PPP-adjusted US dollar per hour or less. Although this is an arbitrary measure, and therefore as good or as bad as any other, we chose this cutoff because it bears a relationship with the standard definition of poverty. Thus, the World Bank defines as poor all people whose per capita income is at or below two PPP-adjusted US dollars per day. This poverty measure is computed adding all individual incomes (from all sources) at the level of the household and then finding the per capita income of each household member. Therefore, besides household income, this poverty measure depends on variables that are decided at the level of the household, such as the number of children and the ratio of working to non-working individuals. Our measure of low-paying jobs abstracts from these household-level variables and focuses instead on individual hourly earnings.¹⁴ In other words, our measure is “what are the hourly earnings that, given an average workweek and an average ratio of working to non-working household members, afford a per capita income at the poverty line.”¹⁵

Figure 4.4 demonstrates that the percentage of workers earning “poverty wages” ranges from under 40 percent in Chile, Panama, Costa Rica, Mexico and Uruguay to over 70 percent in El Salvador, Bolivia, Nicaragua and Honduras. Across the region, the incidence of low-paying jobs falls disproportionately on certain groups of workers. Thus, with a few exceptions, the proportion of people in low-paying jobs is higher among women than among men, among young workers (15-29) than among any other age group, and among workers with lower levels of schooling.¹⁶ It is interesting to note that the OECD (1996) reports similar patterns across OECD

¹⁴ The \$1 PPP threshold is derived from Székely 2000 as described in the Duryea and Pagés (2001b) paper on low productivity. World Bank thresholds were used for Argentina 1999, Venezuela 1999, and Guatemala 1998 because they were unavailable in Székely 2000.

¹⁵ We assume that labor is the only source of income, that a standard work week is 44 hours and that the ratio of dependent to non-dependents is 2.14 to 1.

¹⁶ The only exceptions are found in Honduras, where the incidence of low-paying jobs is higher among workers with secondary schooling and older workers than among workers with primary education or younger workers, and Mexico and Paraguay, where the incidence of low-paying jobs is higher among older workers.

countries, although that measure of poor jobs is not comparable to the one taken in this study.¹⁷ Across countries, the incidence of poor jobs is also higher among rural than among urban workers and among workers employed in small firms (less than five employees) relative to workers employed in large firms or self-employed.¹⁸

The differences in the incidence of low-paying jobs across demographic groups, regions or schooling levels are more acute in some countries than others. In countries where certain workers have a much higher incidence of low-paying jobs, changes in the shares of workers that are in a particular group can greatly affect the overall incidence of low-paying jobs. Thus, for example, the effect of migration flows from rural to urban areas will be more effective the higher the difference between incidence levels across regions.¹⁹ The incidence of low-paid wages is 9 percentage points lower in urban areas on average, and 20 percentage points lower for workers with completed secondary schooling compared with workers with primary schooling. Figure 4.5 shows that in 12 out of 16 countries, women are more likely to be earning below the \$1 PPP threshold than men.

However, despite the effect of differences in the shares of the labor force in each particular group in explaining the overall incidence of low-paying jobs, there are important cross-country differences that can only be explained by country-specific effects. This is particularly striking if we consider the incidence of low-paying jobs among male urban workers ages 30-50 with completed secondary schooling.²⁰ Figure 4.6 shows that while less than 20 percent of workers with these characteristics in Mexico, Costa Rica, Panama, Brazil, Chile and Colombia earn less than the threshold, in Bolivia, Nicaragua, Peru and Honduras over 40 percent earn “poverty wages.” And while on average only 15 percent of all workers ages 15-65 who have completed some tertiary schooling earn below the threshold, in Nicaragua, Honduras and Bolivia over one-quarter of workers with the highest skills still earn less than \$1 an hour. It is quite clear from this ranking that factors such as capital stock per worker, quality of education or

¹⁷ The OECD defines as low-paying jobs those that pay less than two-thirds of the median wage of the overall employed population.

¹⁸ The exceptions here are Honduras, where the incidence of low-paying jobs is higher in urban than in rural areas, and in Honduras and Paraguay, where the incidence of low-paying jobs among the self-employed is higher than among salaried workers.

¹⁹ This argument assumes that migration only affects the shares of workers in rural or urban areas, but it does not affect the incidence of low pay in rural or urban areas.

²⁰ See Duryea and Pages, 2001a, for details.

total factor productivity are good candidates for explaining these differences. Duryea and Pagés (2001b) argue that increasing education is not sufficient to boost productivity for many countries in the region without additional policy interventions so that human capital is complemented by productive underlying conditions such as infrastructure and credit.

Evolution of Low Pay during the 1990s

Some countries in the region made considerable advances in reducing the proportion of jobs that afford consumption levels at or below the poverty line, as shown in Figure 4.7. During the 1990s the incidence of low pay declined substantially in Brazil, Chile and Uruguay and less markedly so in Bolivia (urban data only). The incidence of low-paying jobs varied widely, but ultimately ended at levels similar to the ones experienced at the beginning of the 1990s in Colombia, Peru, Honduras and Panama. Finally, the incidence of low-paying jobs increased in Costa Rica, Mexico and Venezuela.

The evolution of the incidence of low-paying jobs across countries indicates a trend towards regional convergence. Thus countries like Bolivia, Brazil, Chile and Uruguay, which at the beginning of the 1990s had a high incidence of low-paying jobs, moved to an intermediate position at the end of the 1990s. Instead, countries that at the beginning of the decade had low incidence levels like Costa Rica and Venezuela, experienced acute increases in the proportion of low-paying jobs. Finally, the countries that did not move much during the 1990s were countries at intermediate incidence levels, and they remained there at the end of the period.

Although the rural-urban split is available for only some of the countries, where the split is available it shows that most countries were more successful in reducing the incidence of poor jobs in urban areas, while rural areas fell behind. In Chile and Brazil, where the incidence of poor jobs declined, the decline was much more pronounced in urban areas. In Colombia, Panama and Peru, where overall levels of low pay incidence did not change much during the 1990s, urban incidence fell while rural incidence increased. Finally, in Costa Rica, the overall increase in low pay incidence was mostly driven by an acute increase in the share of low-paying jobs in rural areas.

Preliminary results suggest that the incidence of low pay across demographic groups tends to move with the overall figure. This implies that improvements in the overall measure

tend to be associated with improvements across all groups of workers: young, old, women and men, skilled and unskilled. However, these same results suggest that there are important differences in the dynamics of the incidence of low-paying jobs within rural and urban areas and within large and small firms and self-employed workers. This final set of results suggests a certain level of segmentation between urban and rural areas and between small and large firms. However, more results are necessary prior to reaching a conclusion in this regard.

Gaps by Race or Ethnicity

Figure 4.8 shows that indigenous workers in Bolivia, Guatemala and Peru are 20 percentage points more likely to be earning “poverty wages” than their non-indigenous counterparts. Likewise, in Brazil, workers who self-identify as “preta” (black) or “parda” (brown) are 20 percentage points more likely to be earning below the \$1 PPP threshold than workers who self-identify as “branca” (white). While regressions indicate that a high share of these wage differences between indigenous and non-indigenous can be explained by differences in schooling attainment, a portion of the wage gap is not explained by observable skill differences.²¹ An interesting alternative to standard attempts to quantify the share of wages lost from discrimination is an attempt to measure *perceptions* of social exclusion and discrimination in Latin America.

The 2001 Latinobarómetro included a set of questions aimed at measuring perceptions regarding social exclusion and attitudes about potential policy interventions. In 17 countries the survey asked about discrimination faced by indigenous and blacks in different settings using a scale of 1 to 10 where 1 indicates “there is no discrimination” and 10 indicates “there is a lot of discrimination.”

In 14 countries, over 20 percent of respondents indicated that the indigenous face a high degree of discrimination in the workplace. (Over 20 percent of respondents in Argentina, Bolivia, Brazil, Colombia, Chile, Costa Rica, Ecuador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru and Venezuela gave a response of 9 or 10). And in nine countries, over 20 percent of respondents indicated that blacks face a high degree of discrimination in the

²¹ In Brazil the “disadvantaged” group considered is Afro-Brazilians and not the indigenous.

workplace. (These countries were Argentina, Bolivia, Brazil, Chile, Ecuador, Honduras, Mexico, Panama and Peru).

On average women were slightly more likely than men to report that the indigenous and blacks face a high degree of discrimination in the workplace. (On the basis of the pooled sample, women were 2 percent more likely to give a response of 9 or 10.) The questions pertaining to race and ethnicity had extremely high rates of “item non-response,” which may be an indication of a lack of relevance, familiarity or comfort with the topic. On average 11 percent of respondents did not answer the question regarding the treatment of the indigenous in the workplace, based on the pooled sample. Furthermore, also based on the pooled sample, on average 14 percent of respondents did not answer the question regarding the treatment of blacks in the workplace.

In most countries the perception is that the poor face the most discrimination in general. However the indigenous are identified as the group that encounters the most discrimination in Bolivia, Ecuador, Guatemala and Mexico. And blacks are identified as the group facing the most discrimination in Brazil and Panama. Although public opinion surveys are not the ideal instrument for quantifying wage penalties, it is an appropriate venue in which respondents can offer their viewpoints regarding policy interventions. While many respondents favor investing in poor communities as the best way to combat social exclusion, 40 percent of respondents in the region, based on pooled responses across the region, supported legal interventions to guarantee equal treatment in labor markets or product markets. The Latinobarómetro results suggest that a large share of Latin Americans find it unacceptable that ethnic and racial groups still lag behind in labor market progress in the region.

5. Conclusions and Directions for Future Research

This paper departs from case studies of particular labor markets and attempts to take a global view of the region. We find that while individual countries differ in significant ways, some regional and sub-regional patterns emerge. Thus, while in practically all countries of the region participation and employment rates have increased significantly, in many countries, employment growth has not kept pace with increases in participation. The differences are most notable

between the MCA region and South America. While in the first region, unemployment rates remained fairly constant and at low levels, South America experienced a sustained increase in unemployment rates.

The poor labor market outcomes have also implied that during the 1990s, the purchasing power (in dollars) of workers declined in most countries of the MCA and the AND regions but not in the SC region. Similarly, the proportion of low paid workers increased in the MCA and the AND region, but it actually declined in all SC countries. These findings suggest a higher degree of wage flexibility in the AND region and particularly in the MCA region than in the SC region.

Finally, we examine the evolution of wage inequality by skill level and find some unexpected results. Thus, while we find that wage returns to tertiary education have increased in some countries, a trend that has been reported in a number of studies, we also find that wage returns to secondary education have declined throughout the region. Although the latter finding might be associated with less (not more) wage inequality, it may also reduce students' incentives to pursue secondary education, polarizing the supply of skills between those who only have primary education and those who can afford to continue and complete tertiary education.

What type of phenomena might explain these findings? The available evidence suggest that the widespread rise in unemployment is due to the inability of the labor market to accommodate two large shocks: (1) an increase in participation brought about by secular increases in education and declining fertility rates, and (2) a deceleration of economic activity in the second half of the 1990s, which slowed down employment growth. In turn, declining economic activity brought to a halt the economic prospects of many households, which seemingly responded by further increasing labor supply both in number of hours and in terms of working individuals. However, our findings open a number of questions for future research. First, why did unemployment rates increase in the SC and AND region, but not in the MCA region? Some avenues to explore are differences in the size of the shocks; differences in the institutional environment (such as the structure of collective bargaining, or labor laws); the proximity and the economic integration of the MCA economies with the United States; and the possibility of emigrating legally or illegally to the United States when economic conditions in MCA deteriorate; and finally, the larger share of labor-intensive export industries in MCA than in South America.

The second important question raised by these findings is how large is the welfare cost borne by unemployed workers? In this regard, future research should examine the duration of unemployment spells as well as the wage and income losses endured by unemployed workers. This type of work proves to be essential in the design of policies aimed at alleviating the costs of unemployment; however, this research requires panel data, which only exists in a small subset of countries in the region. Greater investments should be undertaken to promote this type of information gathering across countries.

Finally, despite much research in this area, it is still unclear what is driving changes in the wage returns to education. Are declining returns to secondary education in the MCA and the AND regions being driven by falling demand or by increasing supply? Moreover, if there is a declining supply of unskilled labor, why did the wage returns to primary education remain constant? Is this an indication that movements in the wage returns to secondary education are driven by supply changes? Further research should aim to disentangle some of these relevant and challenging questions.

Tables for Section 1: Data

Table 1.1. Names and Years of Household Surveys

Country	Survey Name	Years	Number of Surveys	Number in the 1990s
Argentina	Encuesta Permanente de Hogares	1980, 1996, 1998, 1999	9	3
Bolivia*	Encuesta Continua de Hogares	1986, 1990, 1993, 1995, 1996, 1997, 1999	7	6
Brazil	Pesquisa Nacional por Amostragem de Domicilios	1981, 1983, 1986, 1988, 1992, 1993, 1995, 1996, 1997, 1998, 1999	11	7
Chile *	Encuesta de Caracterización Socioeconómica Nacional	1987, 1990, 1992, 1994, 1996, 1998	6	5
Colombia	Encuesta Nacional de Hogares Fuerza de Trabajo	1990, 1991, 1993, 1995, 1996, 1997, 1998, 1999	8	8
Costa Rica	Encuesta Nacional de Hogares Empleo y Desempleo Encuesta de Hogares de Propósitos Múltiples	1981, 1983, 1985, 1987 1989, 1991, 1993, 1995, 1997, 1998	10	5
Ecuador	Encuesta de Condiciones de Vida	1995, 1998	2	2
Honduras	Encuesta Permanente de Hogares de Propósitos Múltiples	1992, 1996, 1997, 1998, 1999	5	5
Mexico	Encuesta Nacional de Ingreso Gasto de los Hogares	1977, 1984, 1989, 1992, 1994, 1996, 1998	7	4
Panama	Encuesta de Hogares	1979, 1991, 1995, 1997, 1998, 1999	6	5
Peru	Encuesta Nacional de Hogares Sobre Medición de Niveles de Vida	1985, 1991, 1994, 1997, 2000	5	3
Paraguay	Encuesta Permanente de Hogares	1995, 1998	2	2
El Salvador	Encuesta de Hogares por Muestreo	1995, 1997, 1998	3	3
Uruguay *	Encuesta Continua de Hogares	1981, 1989, 1992, 1995, 1997, 1998	6	4
Venezuela	Encuesta de Hogares por Muestreo	1981, 1983, 1986, 1989, 1993, 1995, 1997, 1998, 1999	9	5

* Notes:

Surveys for Bolivia are not nationally representative until after 1987.

Wages are not available in Chile 1987 or Chile 1990.

Surveys for Argentina and Uruguay cover urban areas only, comprising approximately 90% of the population..

Table 1.2. Definitions of Early, Mid and Late 1990s

Country	Early 90s	Mid 90s	Late 90s
Bolivia		1996	1999
Brazil	1993	1996	1999
Chile	1992	1996	1998
Colombia	1993	1996	1999
Costa Rica	1993	1995	1998
Honduras	1992	1996	1999
Mexico	1992	1996	1999
Panama	1991	1995	1999
Peru	1991	1994	2000
Uruguay*	1992	1995	1998
Venezuela	1993	1995	1999

* Surveys for Uruguay cover urban areas only, comprising approximately 90% of the population.

Tables and Figures for Section 2: Unemployment

Figure 2.1.

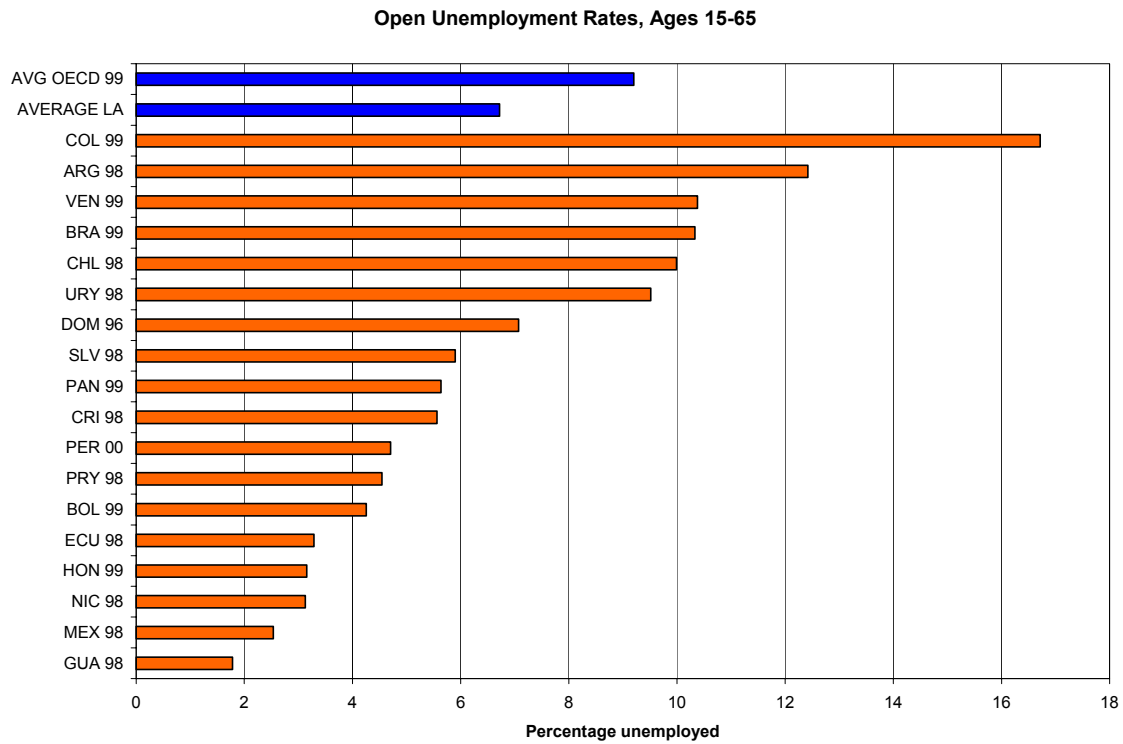
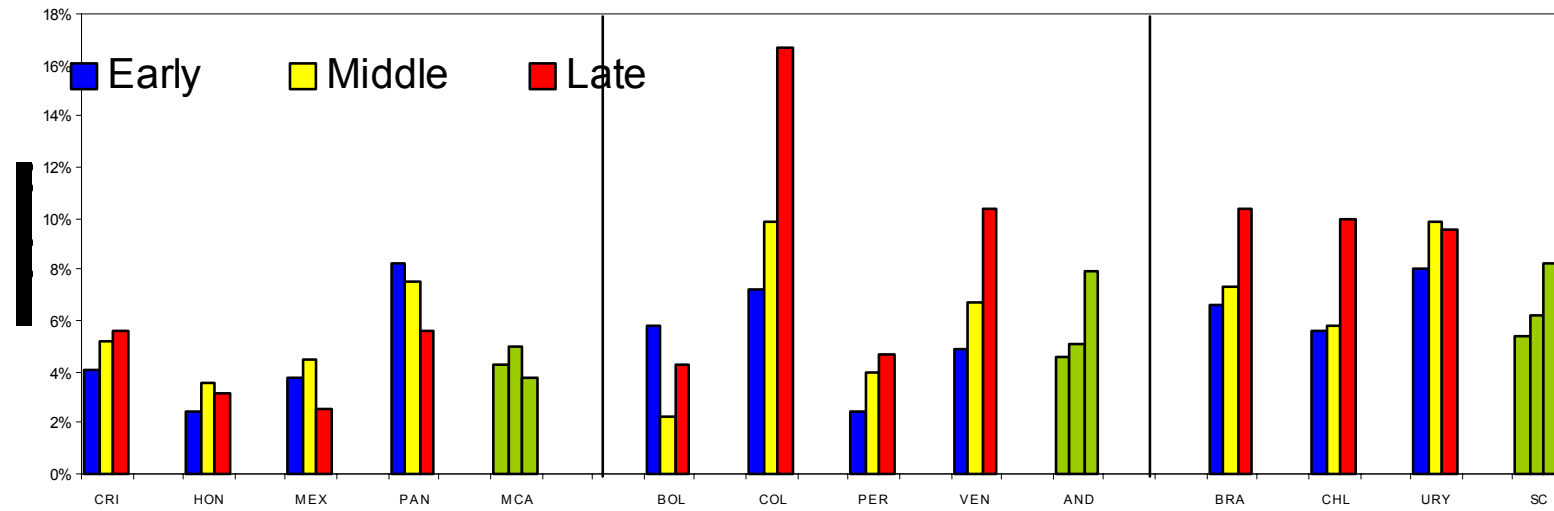


Figure 2.2

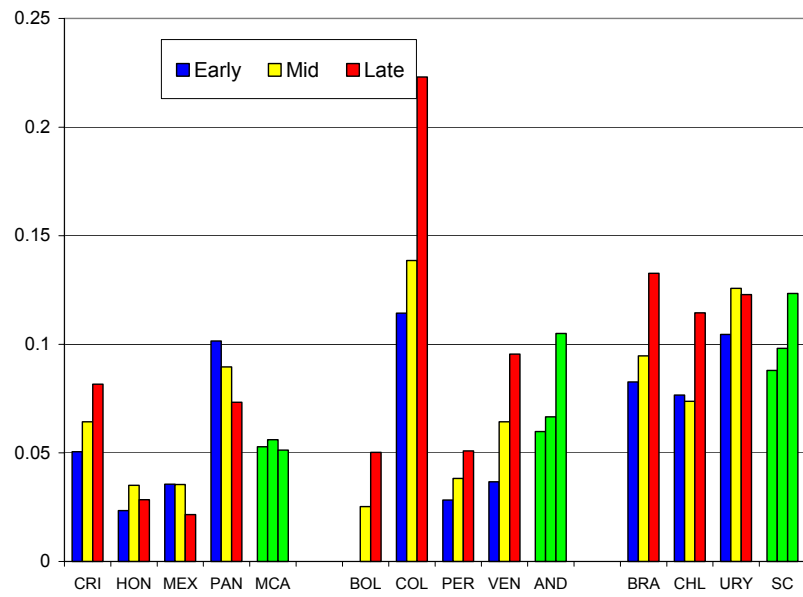
Unemployment during the 1990s
Men and Women 15 to 65



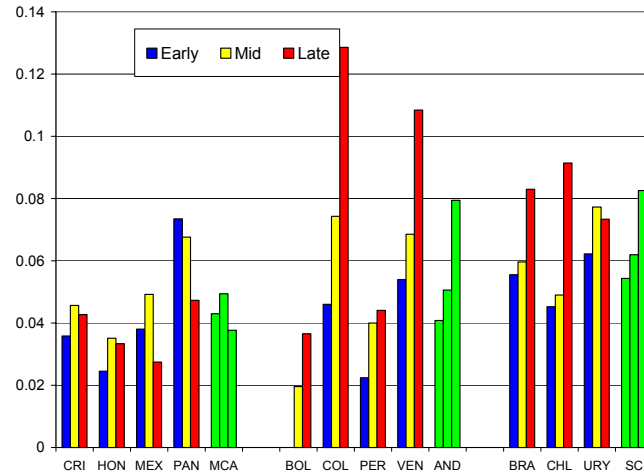
Note: The green bars are the sub-regional averages of the countries included in the figure, unweighted by country size. MCA refers to Mexico and Central America; AND refers to the Andean sub-region; and SC refers to the sub-region of the Southern Cone.

Figures 2.3 and 2.4

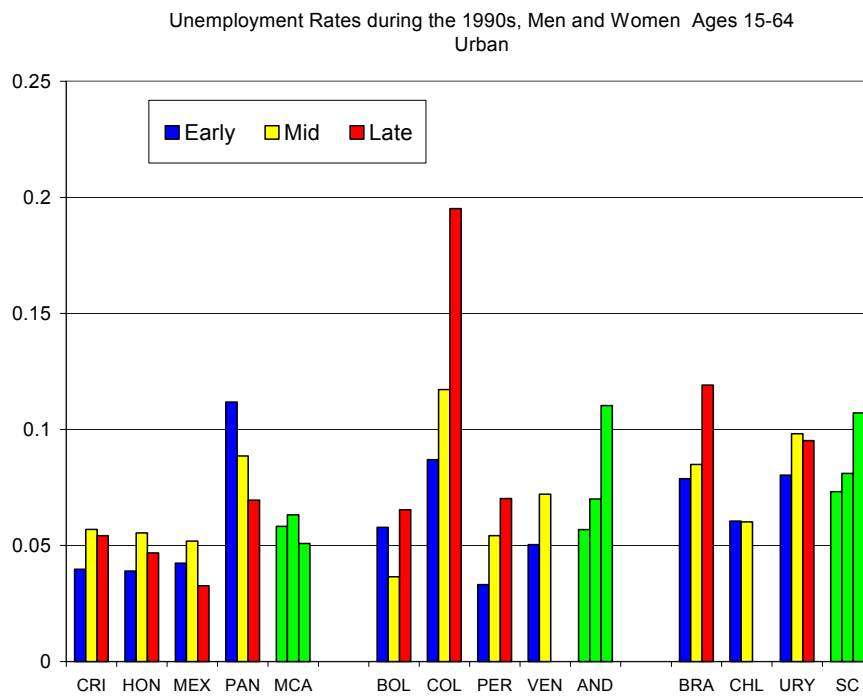
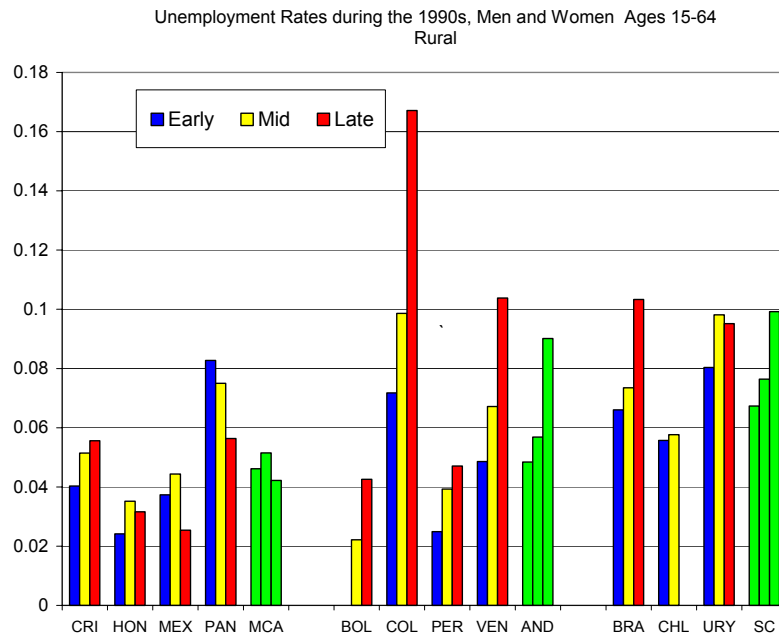
Unemployment rates during the 1990s, Women Ages 15-65



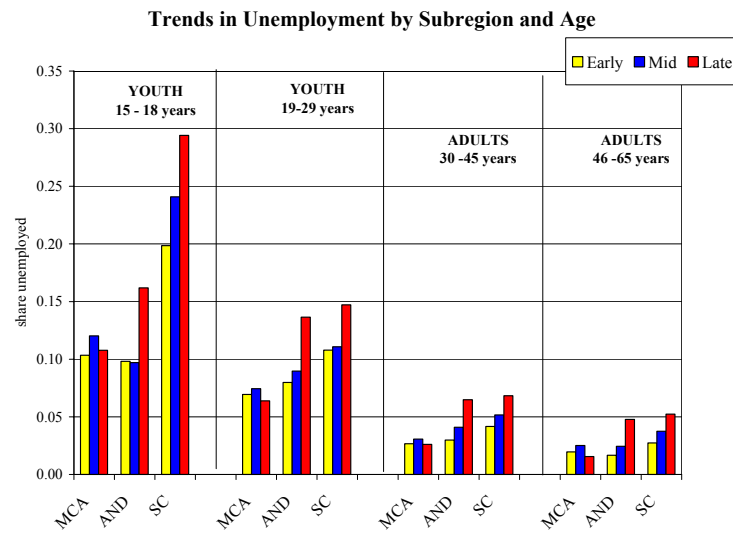
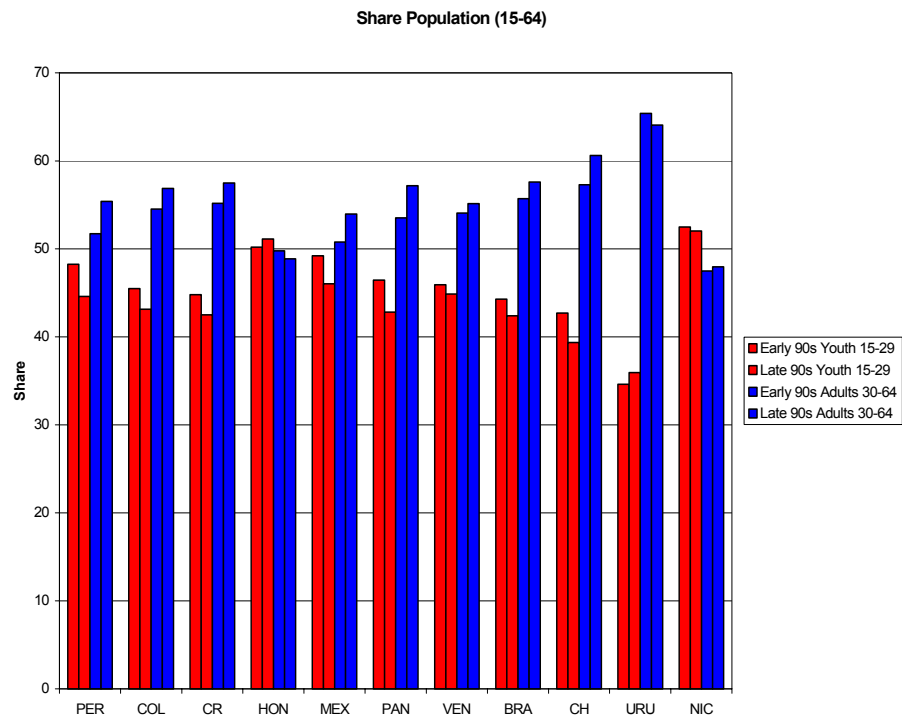
Unemployment Rates during the 1990s, Men Ages 15-65



Figures 2.5 and 2.6

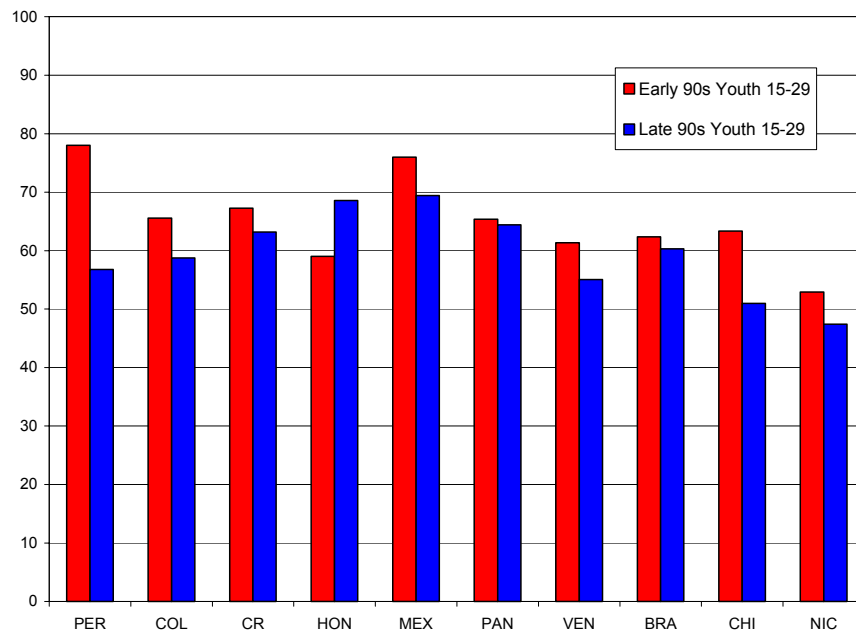


Figures 2.7 and 2.8

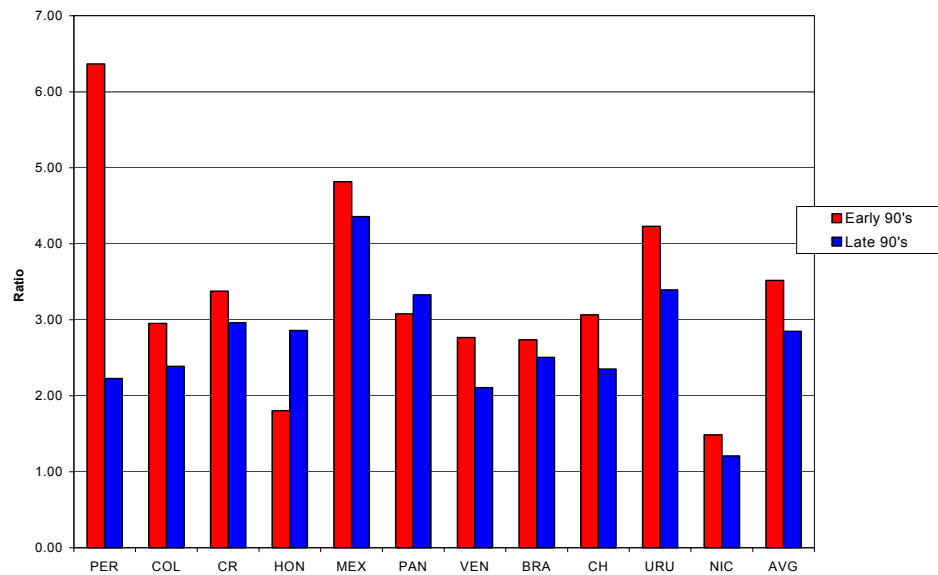


Figures 2.9 and 2.10

Share Total Unemployment, Youth (15-29)

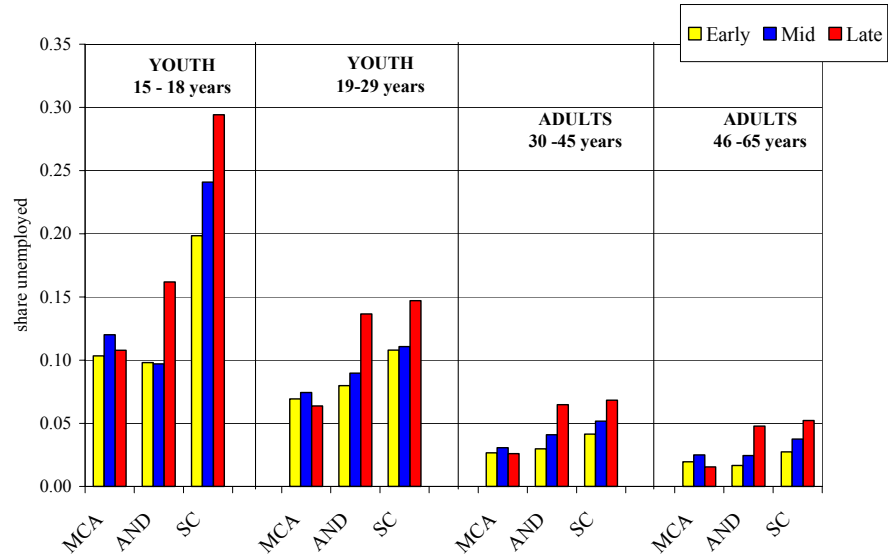


Relative Unemployment Rate (ratio youth unemployment/adult unemployment)



Figures 2.11 and 2.12

Trends in unemployment by subregion and age



Share Population (15-64)

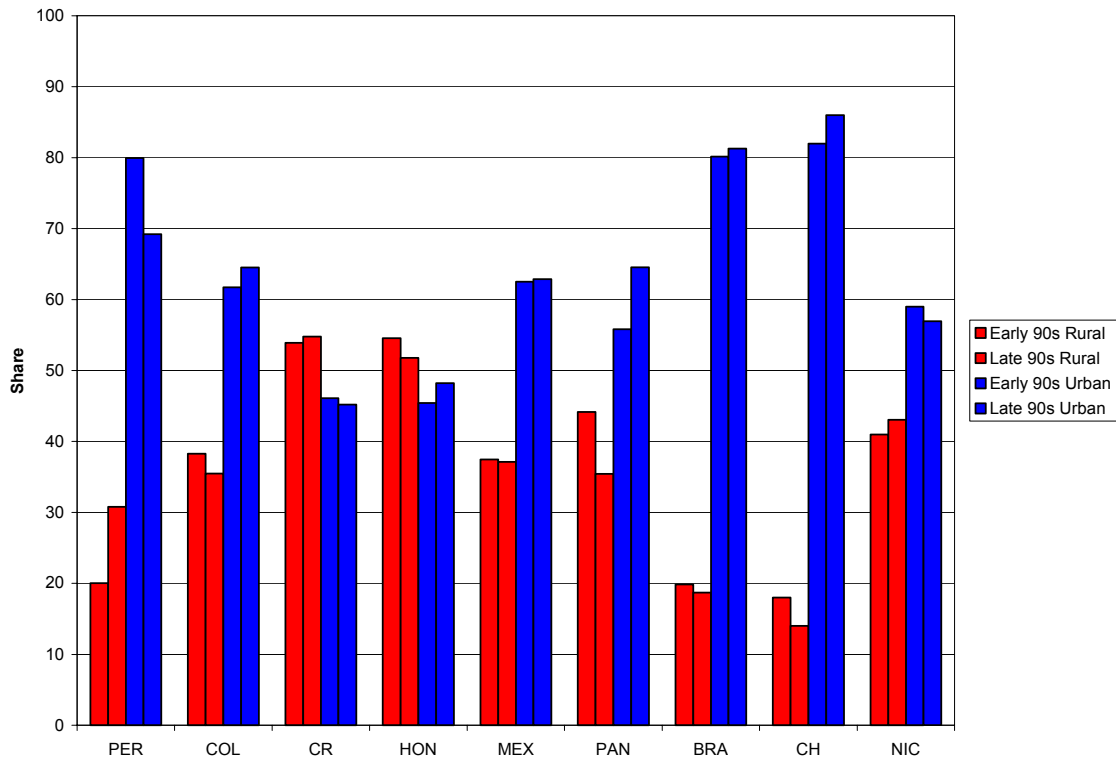
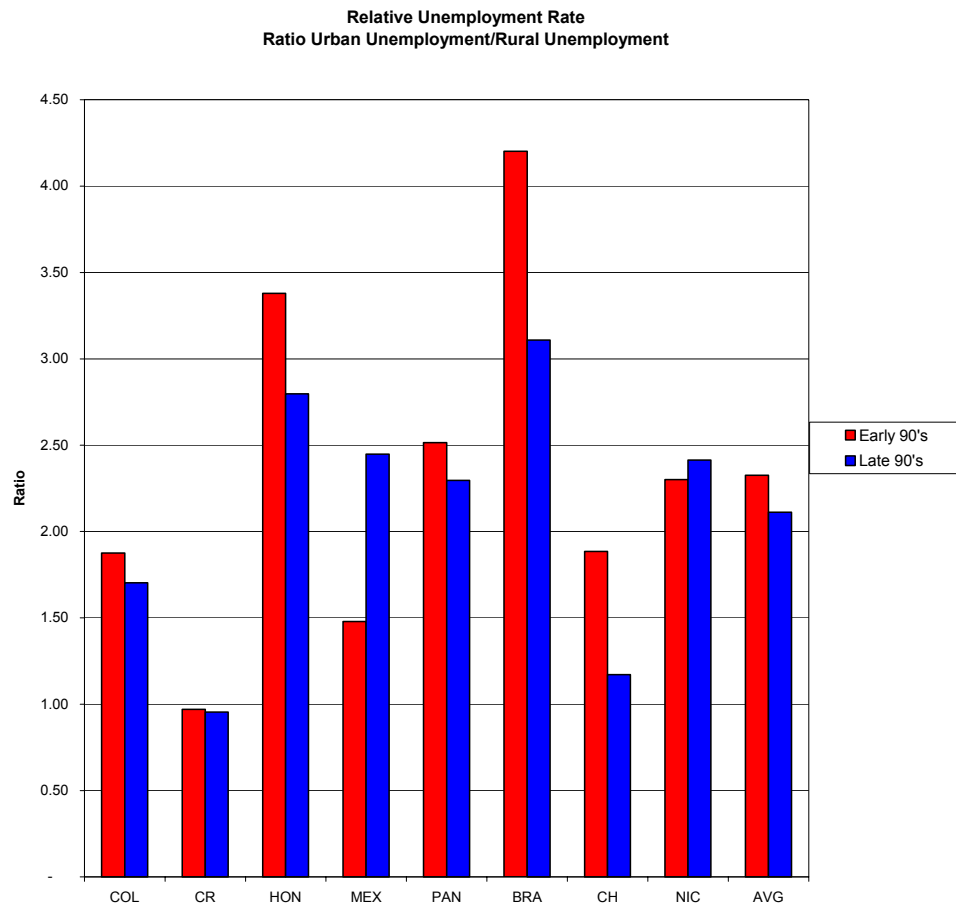
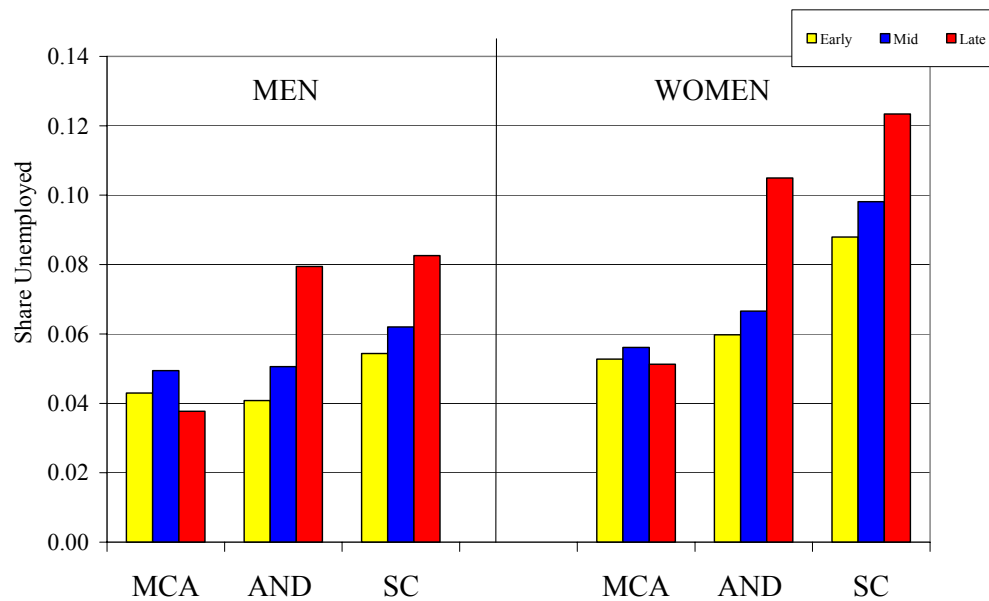


Figure 2.13

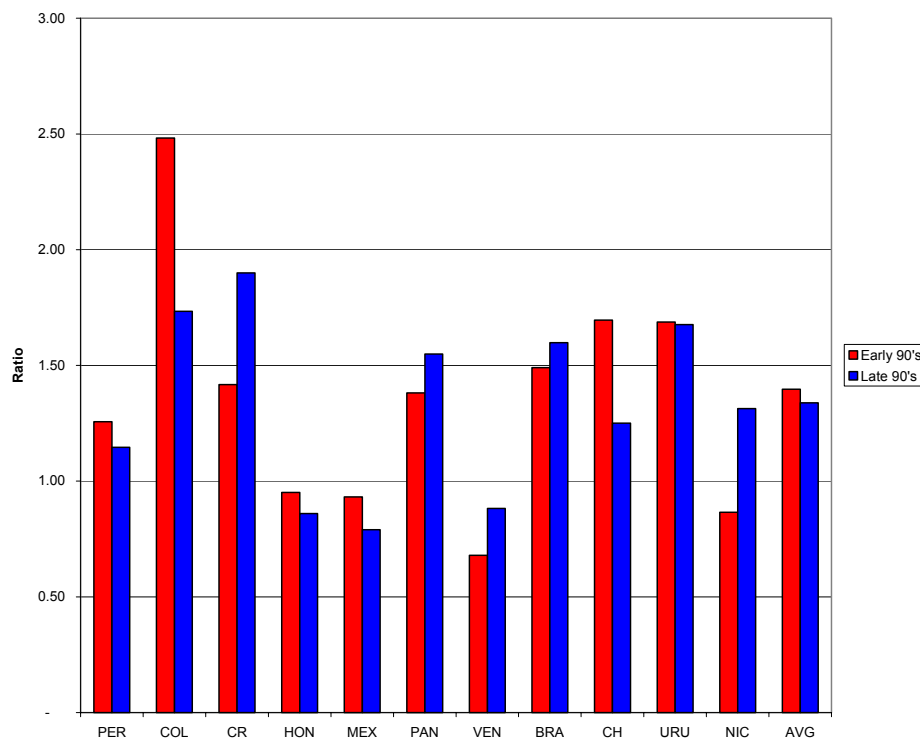


Figures 2.14 and 2.15

Trends in Unemployment by Subregion and Gender



Relative Unemployment Rate
ratio female unemployment/male unemployment



A. 1 Decompositions of Change in Aggregate Unemployment Rates with Respect to Age, Gender and Area of Residence

$$(1) \quad U_{15-64}^{late} - U_{15-64}^{early} = U_{15-29}^{early} (S_{15-29}^{late} - S_{15-29}^{early}) + U_{30-64}^{early} (S_{30-64}^{late} - S_{30-64}^{early}) \\ + S_{15-29}^{late} (U_{15-29}^{late} - U_{15-29}^{early}) + S_{30-64}^{late} (U_{30-64}^{late} - U_{30-64}^{early})$$

$$(2) \quad U_{15-64}^{late} - U_{15-64}^{early} = U_{female}^{early} (S_{female}^{late} - S_{female}^{early}) + U_{male}^{early} (S_{male}^{late} - S_{male}^{early}) \\ + S_{female}^{late} (U_{female}^{late} - U_{female}^{early}) + S_{male}^{late} (U_{male}^{late} - U_{male}^{early})$$

$$(3) \quad U_{15-64}^{late} - U_{15-64}^{early} = U_{urban}^{early} (S_{urban}^{late} - S_{urban}^{early}) + U_{rural}^{early} (S_{rural}^{late} - S_{rural}^{early}) \\ + S_{urban}^{late} (U_{urban}^{late} - U_{urban}^{early}) + S_{rural}^{late} (U_{rural}^{late} - U_{rural}^{early})$$

Table 2.1a. Differences in Unemployment Rates across Types of Workers

	Youth (15-29) versus Older (30-64)		Female versus Male		Urban versus Rural	
	Early	Late	Early	Late	Early	Late
Peru	4.24	3.93	0.58	0.65	3.26	6.42
Colombia	7.75	15.16	6.86	9.47	4.07	8.08
Costa Rica	4.73	6.16	1.49	3.87	-0.12	-0.26
Honduras	1.43	3.16	-0.12	-0.47	2.76	3.02
Mexico	5.27	3.56	-0.26	-0.58	1.38	1.94
Panama	9.58	7.17	2.81	2.61	6.74	3.94
Venezuela	5.19	8.14	-1.74	-1.28	na	na
Brazil	6.55	9.69	2.73	4.98	6.02	8.10
Chile	6.50	9.48	3.15	2.30	2.84	1.49
Uruguay	12.79	12.76	4.28	4.98	na	na
<i>Average</i>	<i>6.40</i>	<i>7.92</i>	<i>1.98</i>	<i>2.65</i>	<i>3.37</i>	<i>4.09</i>

Table 2.1b. Relative Unemployment Rates across Types of Workers

	Youth (15-29) versus Older (30-64)		Female versus Male		Urban versus Rural	
	Early	Late	Early	Late	Early	Late
Peru	6.37	2.23	1.26	1.15	1.33	1.49
Colombia	2.95	2.39	2.48	1.73	1.88	1.70
Costa Rica	3.38	2.96	1.42	1.90	0.97	0.95
Honduras	1.80	2.86	0.95	0.86	3.38	2.80
Mexico	4.82	4.36	0.93	0.79	1.48	2.45
Panama	3.08	3.33	1.38	1.55	2.51	2.30
Venezuela	2.77	2.11	0.68	0.88	na	Na
Brazil	2.74	2.51	1.49	1.60	4.20	3.11
Chile	3.06	2.35	1.70	1.25	1.88	1.17
Uruguay	4.23	3.39	1.69	1.68	na	na
<i>Average</i>	<i>3.52</i>	<i>2.85</i>	<i>1.40</i>	<i>1.34</i>	<i>2.21</i>	<i>2.00</i>

Table 2.2. Change in Group's Share of Economically Active Over Time

	Youth	Female	Urban	No schooling	Primary	Secondary	Tertiary
Brazil	-3.05	2.31	1.67	2.24	-0.76	1.65	-1.80
Chile	-5.60	3.47	4.14	-0.19	-5.86	3.67	2.27
Colombia	-3.21	3.13	2.71	-0.63	-3.33	1.04	3.48
Costa Rica	-3.37	2.93	0.09	-0.82	-1.18	1.55	0.44
Honduras	1.11	4.49	3.05	-2.96	-8.50	11.26	0.19
Mexico	-3.15	5.54	-0.85	-3.47	-6.03	5.66	3.84
Panama	-2.50	1.89	9.52	-3.14	-7.86	9.82	0.74
Peru	-1.49	1.23	-10.99	-0.98	-7.39	3.54	4.59
Uruguay	1.11	1.22	Na	na	na	na	Na
Venezuela	0.31	4.49	Na	0.39	-4.64	4.8	0.17
<i>Average</i>	<i>-1.98</i>	<i>3.07</i>	<i>1.17</i>	<i>-1.06</i>	<i>-5.06</i>	<i>4.78</i>	<i>1.55</i>

Table 2.3.

Table 2 :Changes in the Structure of the Labor Force and Unemployment*Panel A: Decomposition of Change in Aggregate Unemployment Rates with respect to Age (15-29 vs. 30-64)*

Country	Years	Total Change (Percentage Points)	Part explained by change in age structure within EAP (percentage points)	Part explained by within group change in unemployment rates (p. p.)	Percentage explained by change in age structure within EAP	Percentage explained by within group change in unemployment rates
Brazil	1993 - 1999	3.74	-0.20	3.93	-5.34	105.16
Chile	1992 - 1998	4.44	-0.36	4.81	-8.20	108.45
Colombia	1993 - 1999	9.56	-0.25	9.82	-2.60	102.68
Costa Rica	1993 - 1998	1.55	-0.16	1.72	-10.28	110.76
Honduras	1992 - 1999	0.74	0.02	0.72	2.15	97.48
Mexico	1992 - 1998	-1.20	-0.17	-1.04	13.83	86.36
Panama	1991 - 1999	-2.64	-0.24	-2.40	9.07	90.77
Peru	1991 - 2000	2.22	-0.06	2.29	-2.85	103.12
Uruguay	1993 - 1998	1.50	0.14	1.36	9.46	90.67
Venezuela	1993 - 1999	5.53	0.02	5.51	0.29	99.60
<i>Average</i>		<i>2.54</i>	<i>-0.13</i>	<i>2.67</i>	<i>0.55</i>	<i>99.50</i>

Panel B: Decomposition of Change in Aggregate Unemployment Rates with respect to Gender

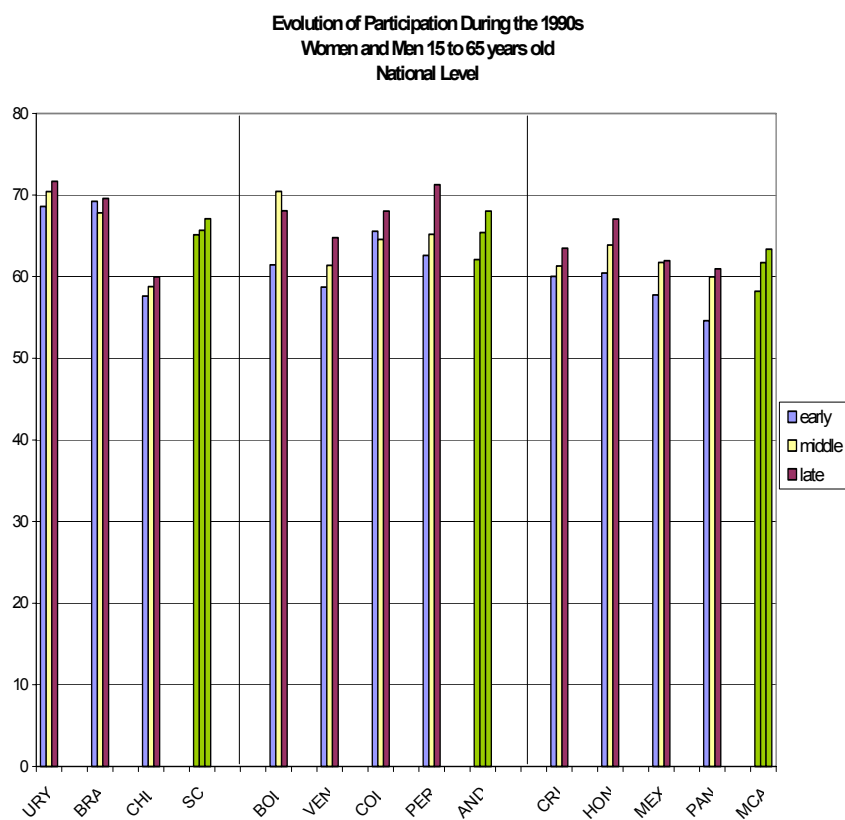
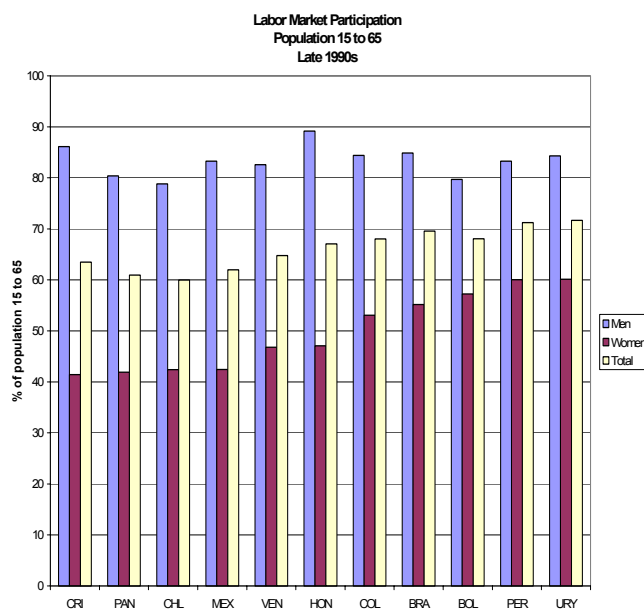
Country	Years	Total Change (Percentage Points)	Part explained by change in gender structure within EAP (percentage points)	Part explained by within group change in unemployment rates (p. p.)	Percentage explained by change in gender structure within EAP	Percentage explained by within group change in unemployment rates
Brazil	1993 - 1999	3.74	0.06	3.67	1.69	98.13
Chile	1992 - 1998	4.44	0.11	4.34	2.46	97.70
Colombia	1993 - 1999	9.56	0.21	9.35	2.25	97.77
Costa Rica	1993 - 1998	1.55	0.04	1.52	2.82	98.04
Honduras	1992 - 1999	0.74	-0.01	0.74	-0.73	100.18
Mexico	1992 - 1998	-1.20	-0.01	-1.18	1.20	98.70
Panama	1991 - 1999	-2.64	0.05	-2.69	-2.01	101.88
Peru	1991 - 2000	2.22	0.01	2.22	0.32	100.02
Uruguay	1993 - 1998	1.50	0.05	1.45	3.48	96.53
Venezuela	1993 - 1999	5.53	-0.08	5.61	-1.41	101.36
<i>Average</i>		<i>2.54</i>	<i>0.04</i>	<i>2.50</i>	<i>1.01</i>	<i>99.03</i>

Panel C: Decomposition of Change in Aggregate Unemployment Rates with respect to Area of Residence

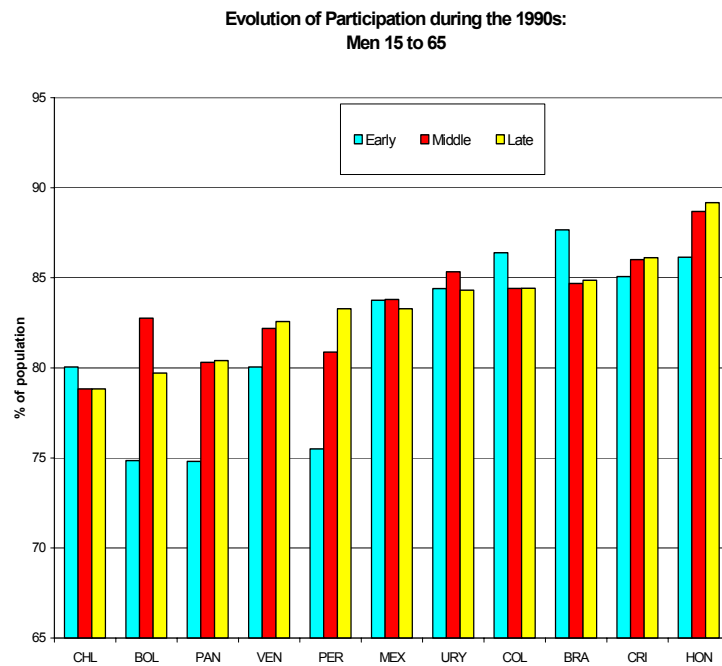
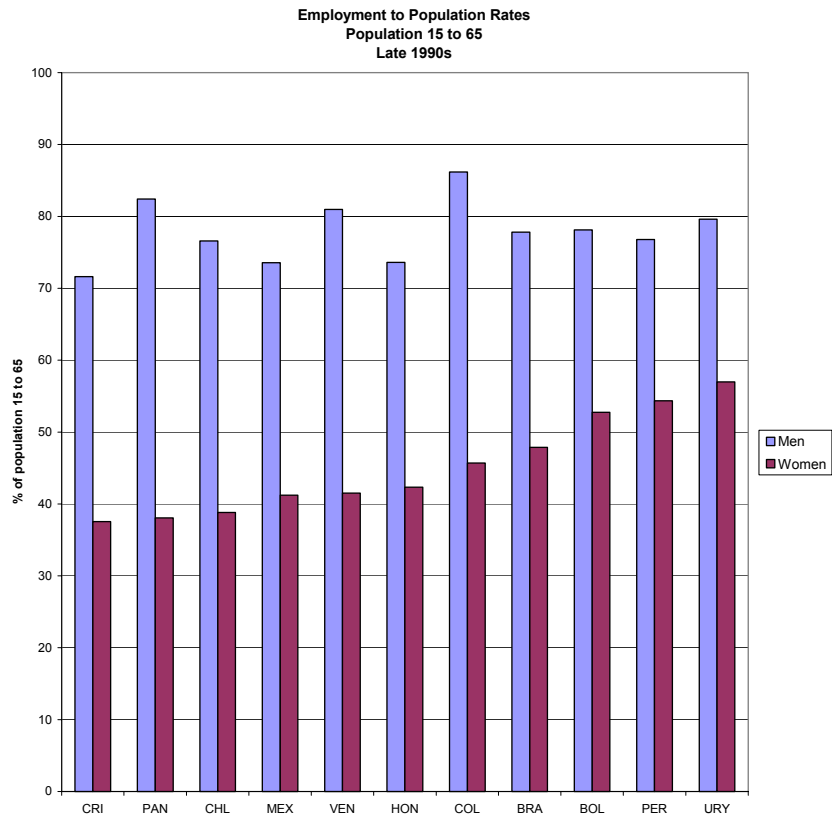
Country	Years	Total Change (Percentage Points)	Part explained by change in residential location within EAP (percentage points)	Part explained by within group change in unemployment rates (p. p.)	Percentage explained by change in residence within EAP	Percentage explained by within group change in unemployment rates
Brazil	1993 - 1999	3.74	0.10	3.63	2.69	97.17
Chile	1992 - 1998	4.44	0.12	4.33	2.65	97.52
Colombia	1993 - 1999	9.56	0.11	9.46	1.15	98.99
Costa Rica	1993 - 1998	1.55	0.00	1.56	-0.01	100.35
Honduras	1992 - 1999	0.74	0.08	0.65	11.38	87.56
Mexico	1992 - 1998	-1.20	-0.01	-1.19	0.98	99.19
Panama	1991 - 1999	-2.64	0.64	-3.27	-24.30	124.02
Peru	1991 - 2000	2.22	-0.36	2.58	-16.14	116.35
Uruguay	na	na	na	na	na	na
Venezuela	na	na	na	na	na	na
<i>Average</i>		<i>2.30</i>	<i>0.09</i>	<i>2.22</i>	<i>-2.70</i>	<i>102.64</i>

Tables and Figures for Section 3: Employment and Participation

Figures 3.1 and 3.2

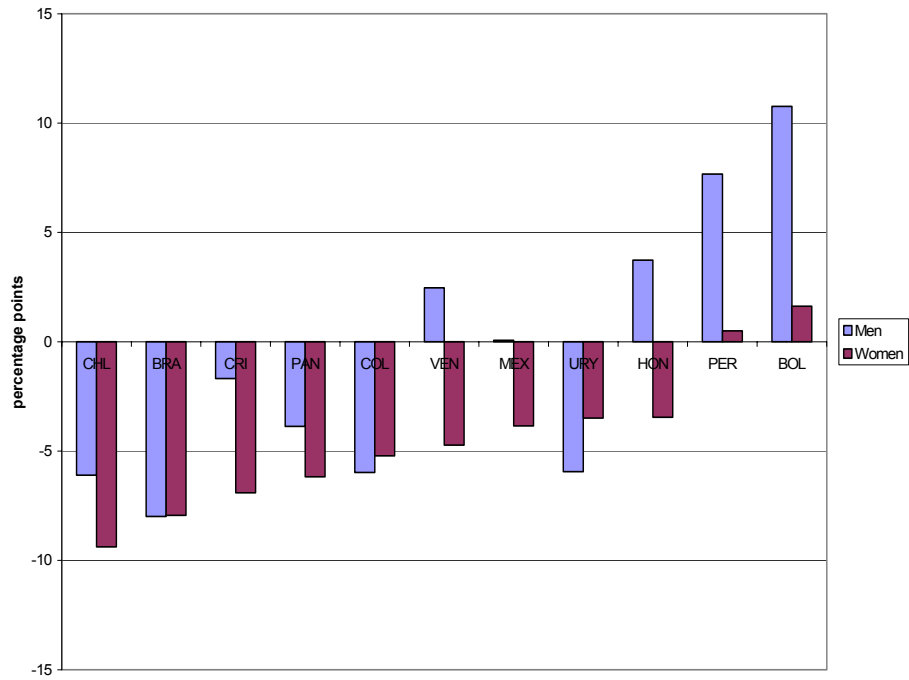


Figures 3.3 and 3.4

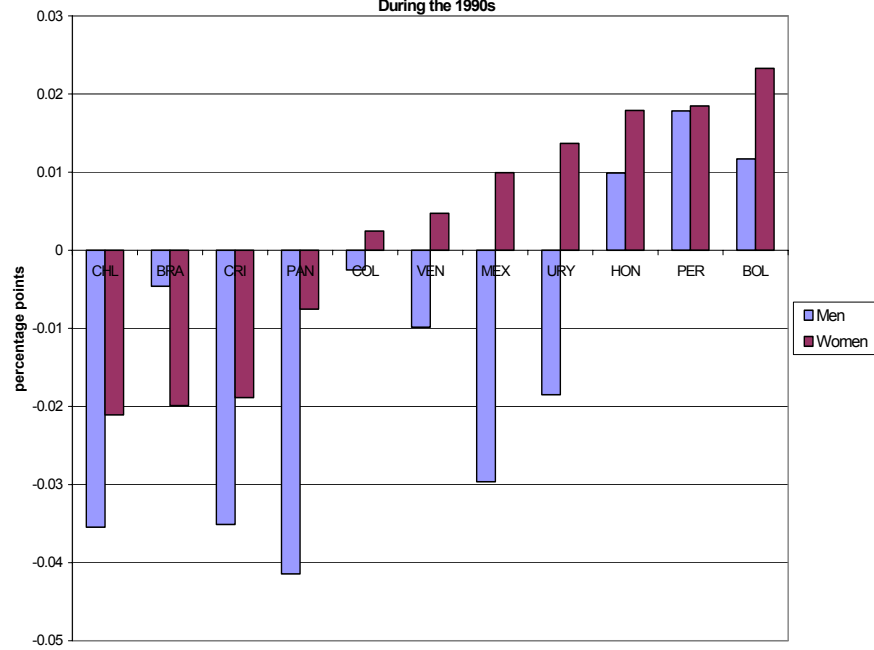


Figures 3.5 and 3.6

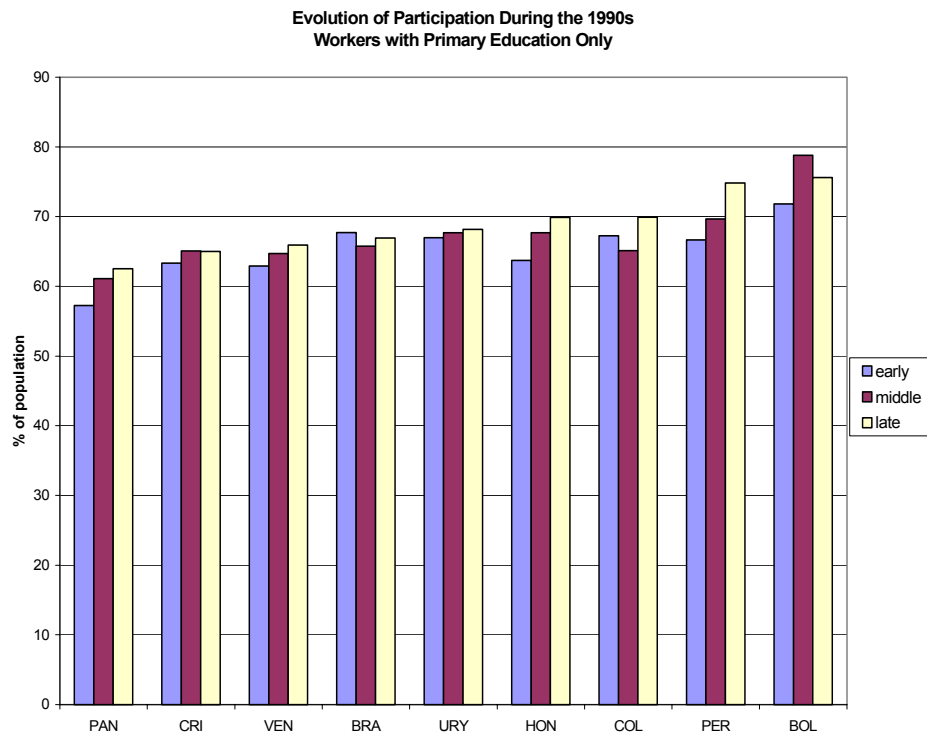
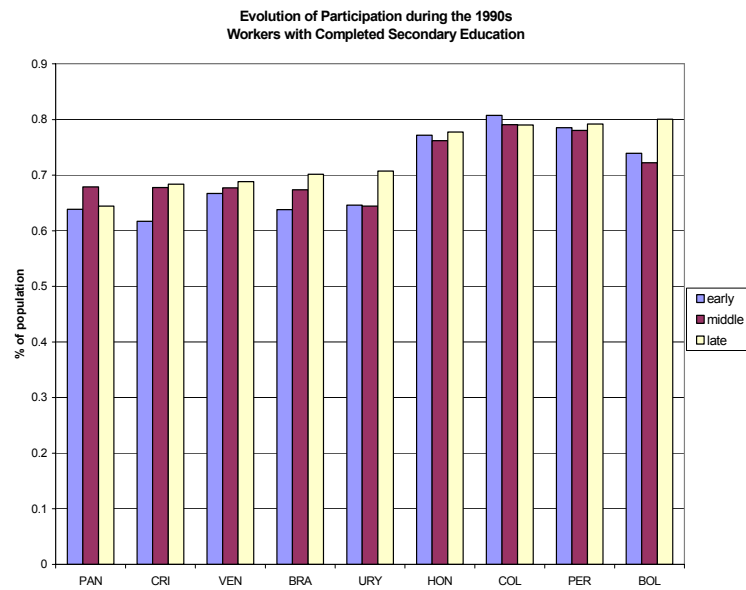
Increase in Participation of People 15 to 19
Relative to Total Increase in Participation During the 1990s



Increase in Participation of People 30 to 45
Relative to Total Increase in Participation
During the 1990s

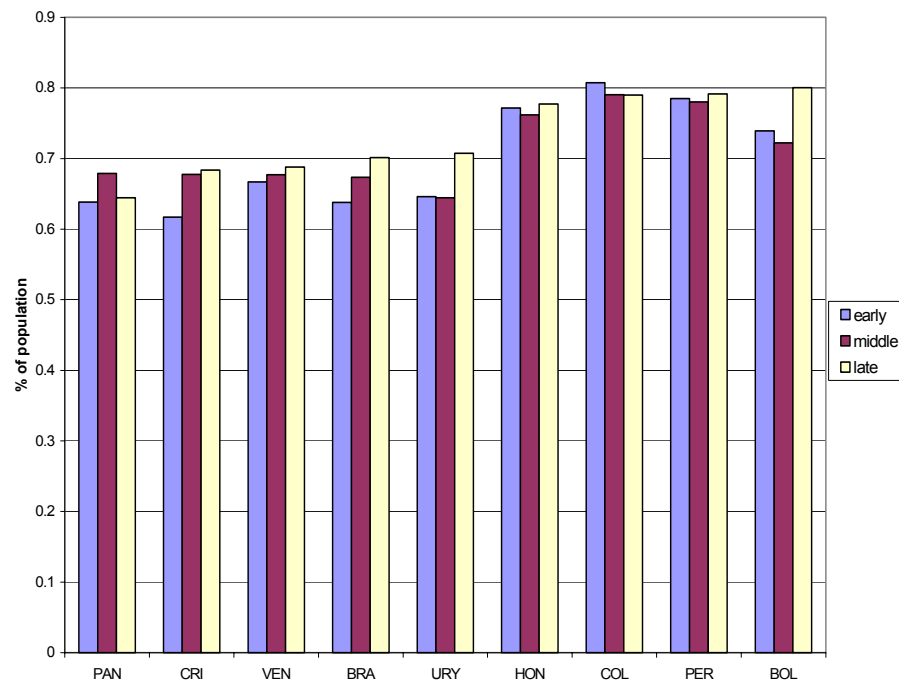


Figures 3.7 and 3.8

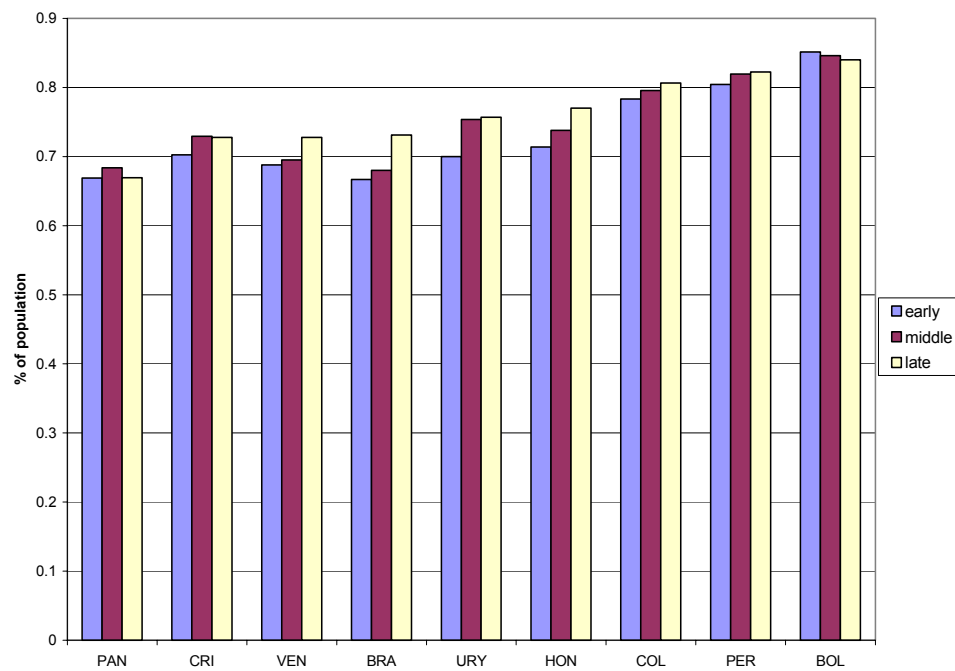


Figures 3.9 and 3.10

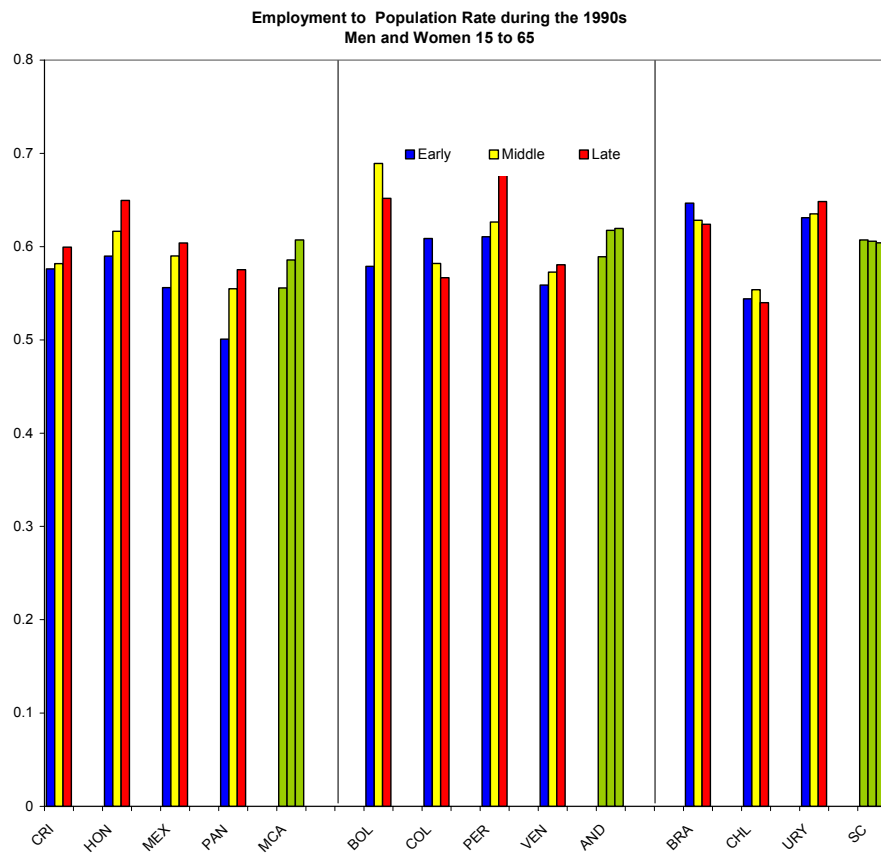
Evolution of Participation During the 1990s
Workers with Completed Secondary Education



Evolution of Participation during the 1990s
Workers with Tertiary Education



Figures 3.11 and 3.12



Figures 3.13 and 3.14

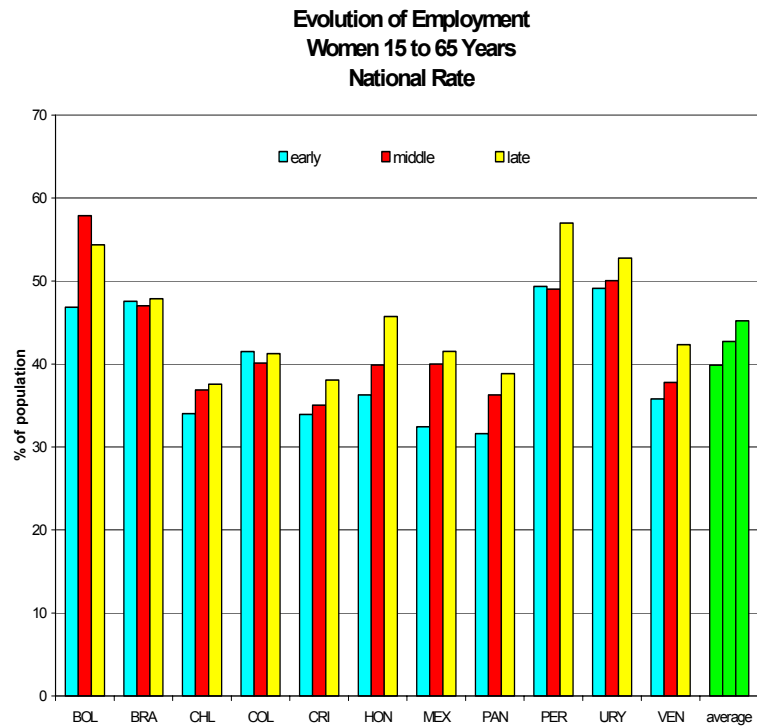
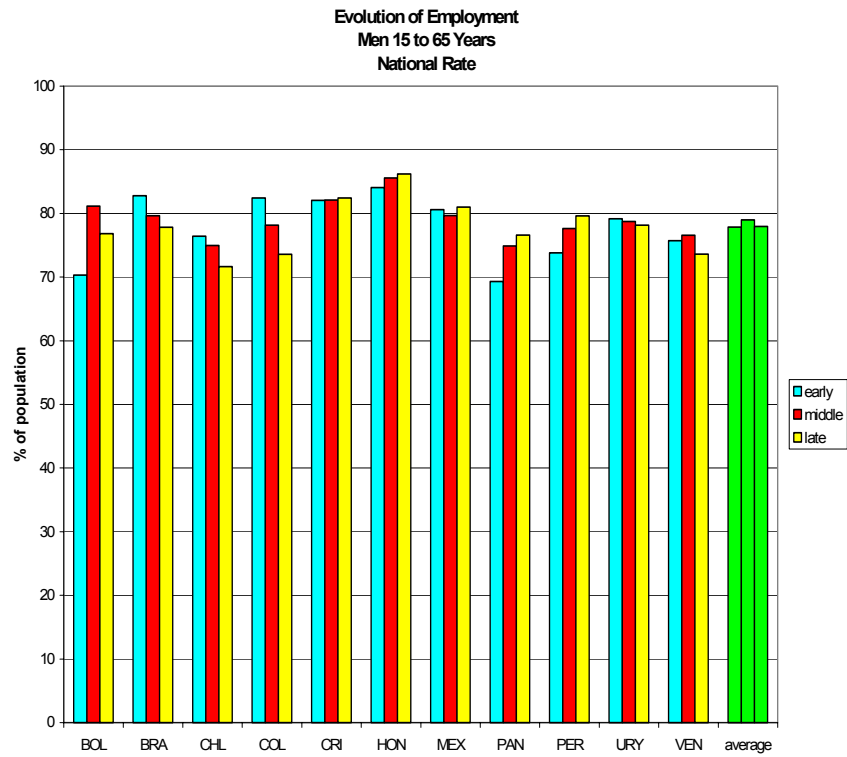
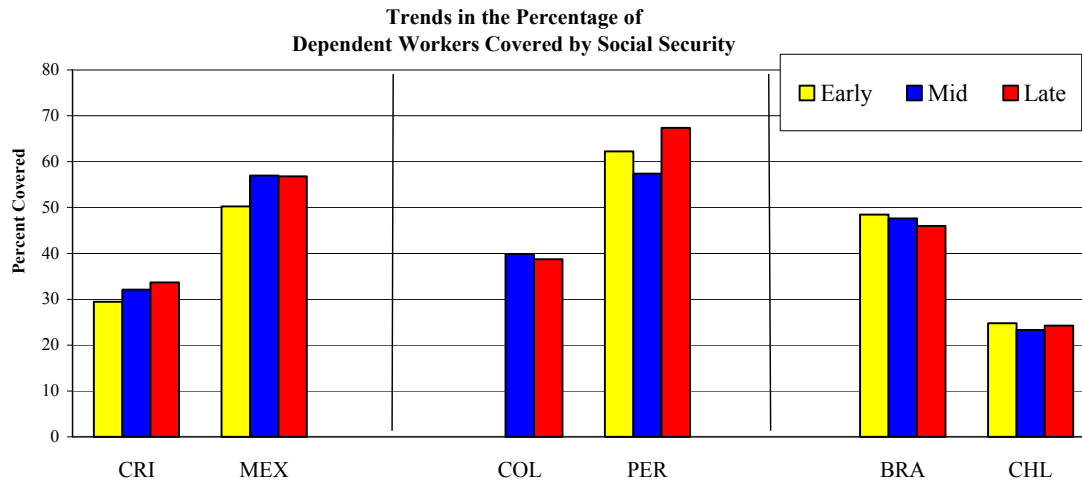


Figure 3.15



Tables and Figures for Section 4: Wages

Figure 4.1.

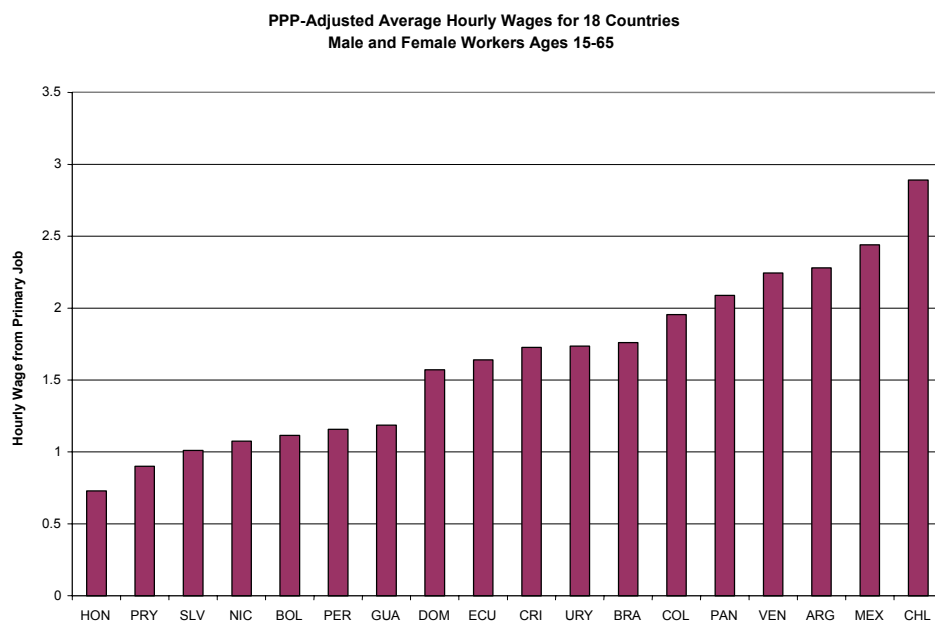


Figure 4.2. Evolution of Wages over the Decade

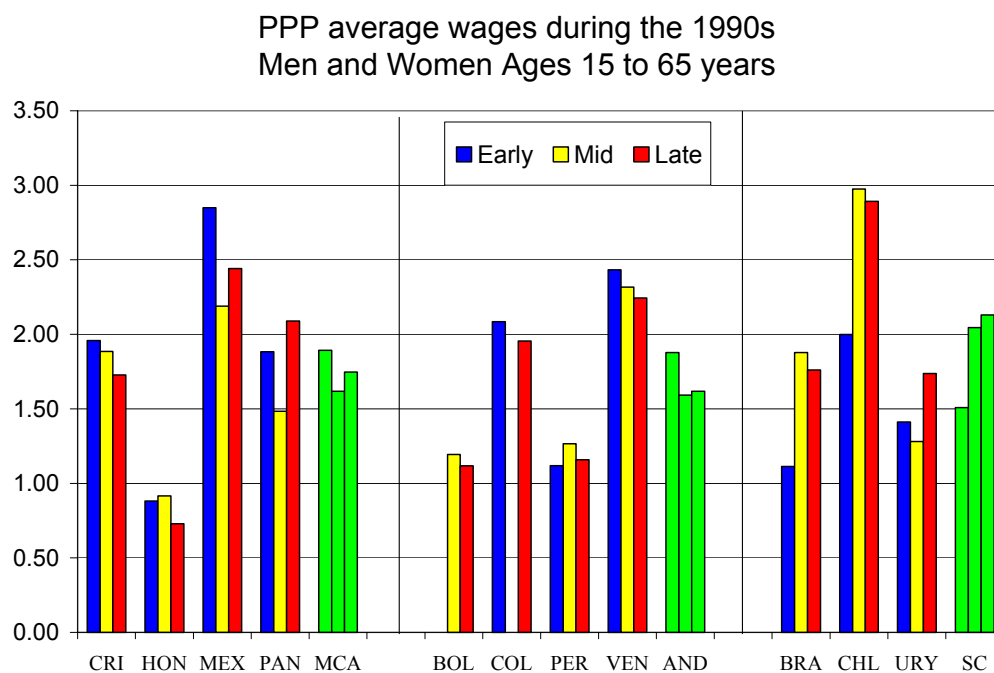


Figure 4.3a. Annual Wage Returns to Completing an Additional Year of Secondary School, Urban Males Ages 30-50

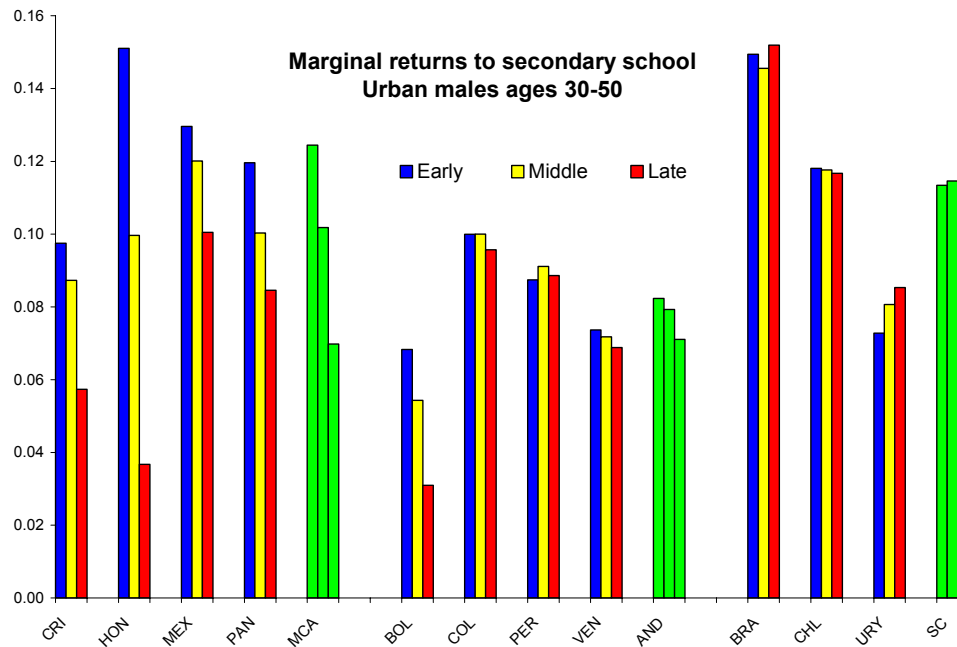


Figure 4.3b. Annual Wage Returns to Completing an Additional Year of Tertiary School, Urban Males Ages 30-50

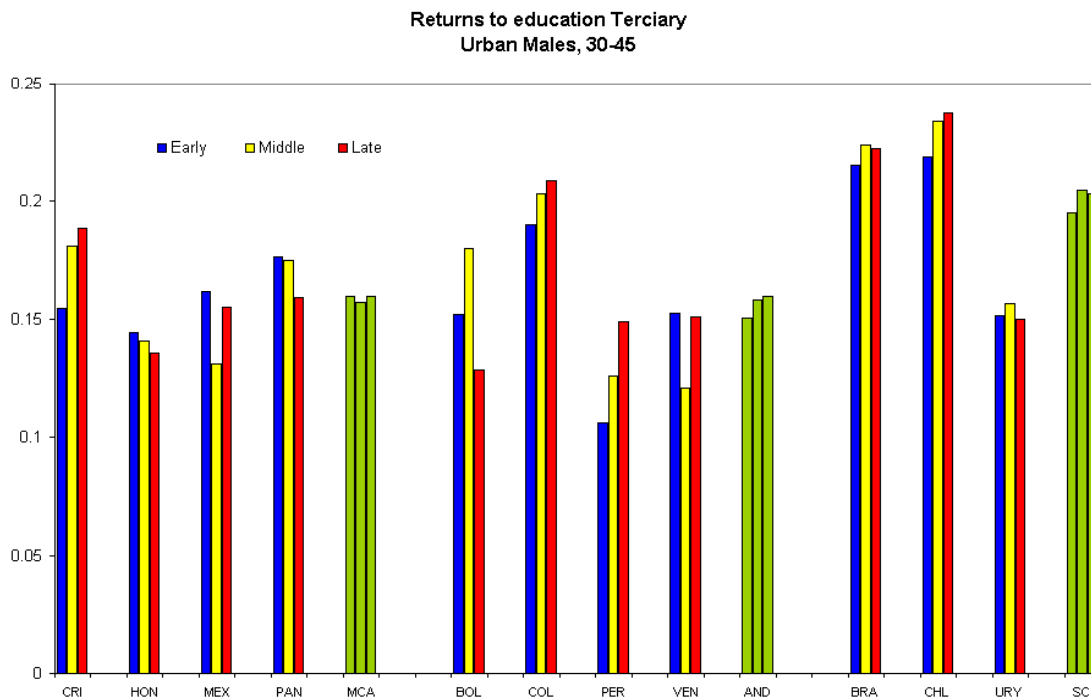


Figure 4.4. Incidence of “Poverty” Wages Across Region

Percentage of Workers Ages 15-65 Earning Less than \$1 an hour ppp

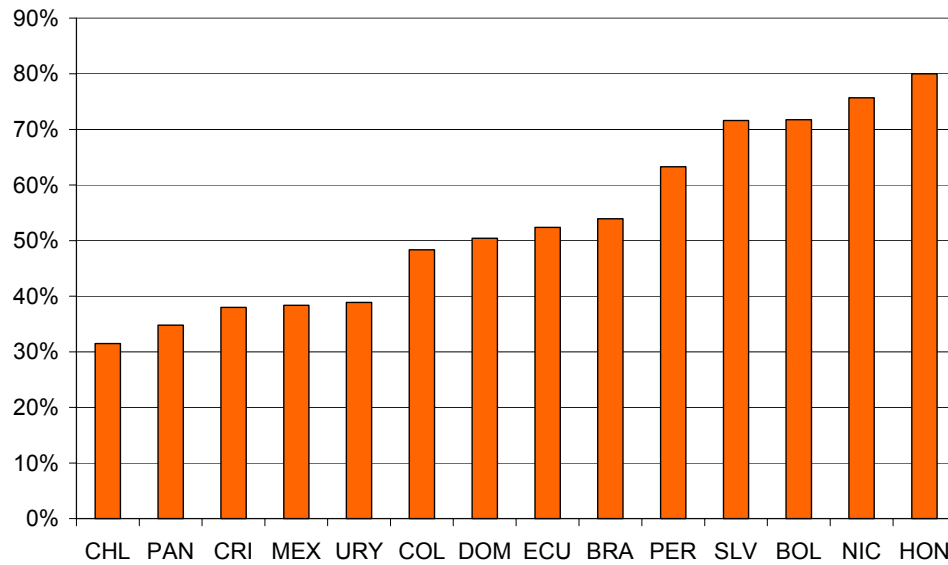


Figure 4.5. Male Female Difference in “Poverty” Wages, Workers Ages 15-65

Percentage of Workers Earning Less then \$1 ppp per hour
ranked by male female difference

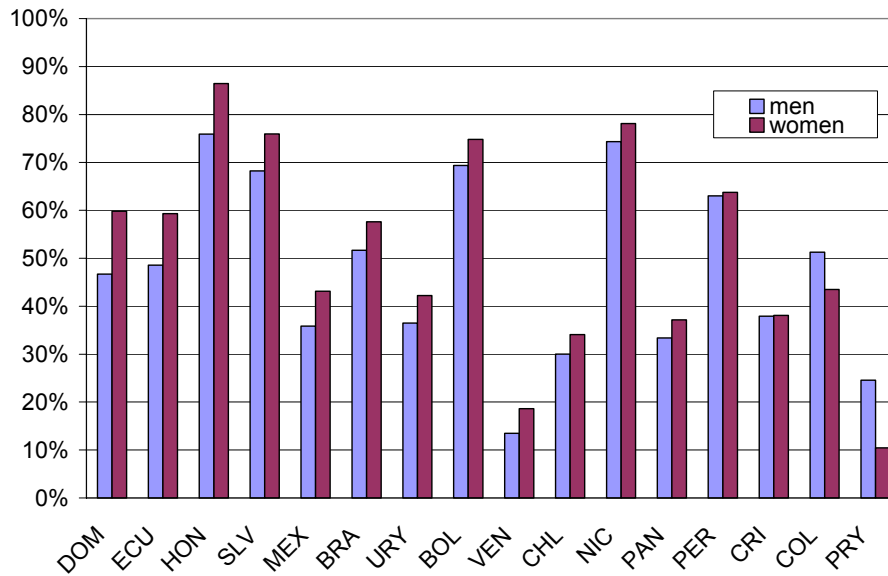


Figure 4.6.

Percentage of Male Workers Ages 30-50 with Completed Secondary School Earning Less Than \$1 an hour

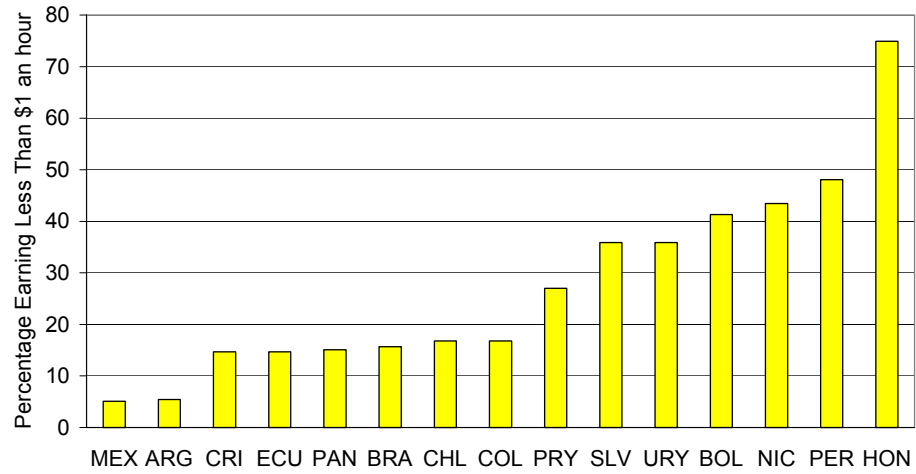
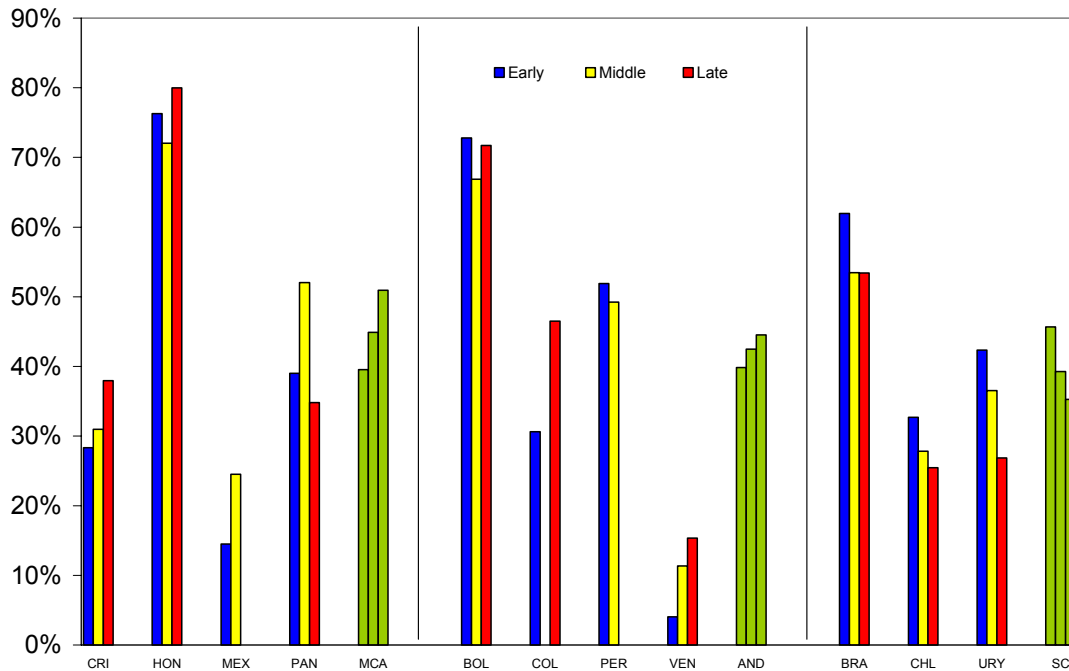


Figure 4.7. Change in Low Wages Across the Region

Percentage of workers earning less than \$1 an hour PPP
Men and Women 15-65



**Figure 4.8. Share of Workers Ages 15-65 Earning Less than \$1 PPP per hour
by Ethnicity/Race.**
(Indigenous vs. Non-Indigenous in Peru, Guatemala and Bolivia, Afro-Brazilian vs. White in Brazil.)

Men and Women

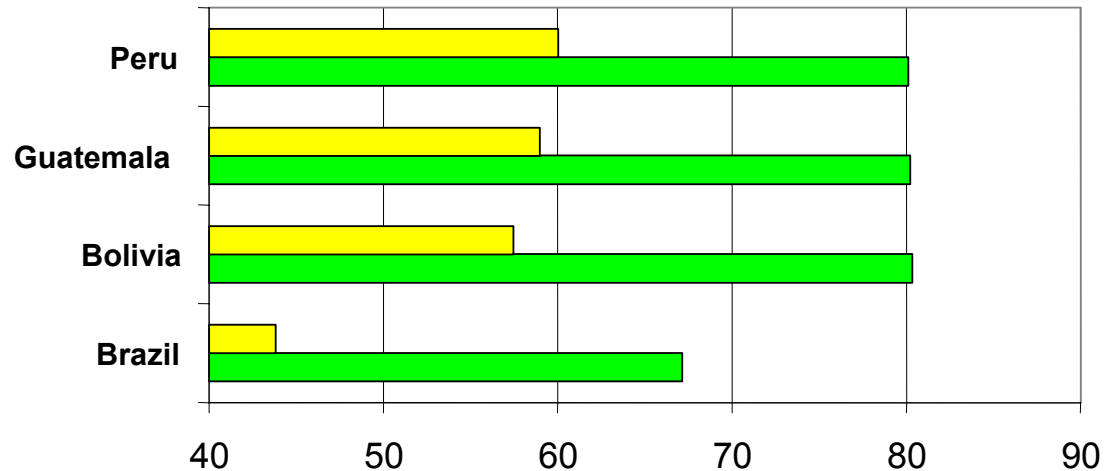


Table 4.1. Ratio of Hourly Earnings

	Ratio of Rural to Urban	Ratio of Female to Male
ARG	.	0.98
BOL	0.69	1.01
BRA	0.91	0.86
CHL	0.94	0.83
COL	0.82	1.06
CRI	0.79	1.05
DOM	0.85	0.78
ECU	0.83	0.88
GUA	0.47	0.83
HON	0.90	0.59
MEX	0.81	0.85
NIC	0.80	0.79
PAN	0.88	0.94
PER	0.84	0.95
PRY	0.70	1.16
SLV	0.86	0.81
URY	.	0.85
VEN	.	0.94
Average	0.81	0.90

Table 4.2. Returns to Schooling, Latin America

Urban male workers 30-45 years old

Country	Year	Primary	Secondary	Tertiary	Country	Year	Primary	Secondary	Tertiary
Argentina	1996	6.74	9.33	15.00	Mexico	1992	8.33	12.96	16.17
Argentina	1998	5.99	9.15	17.30	Mexico	1994	5.57	12.53	18.22
Argentina	1999	4.37	8.05	16.06	Mexico	1996	5.48	12.01	13.13
Bolivia	1990	4.85	6.22	17.01	Mexico	1998	7.06	10.05	15.50
Bolivia	1993	6.29	6.83	15.21	Nicaragua	1993	10.46	9.42	12.92
Bolivia	1995	8.84	6.28	20.06	Nicaragua	1998	8.79	12.90	15.08
Bolivia	1996	6.47	5.43	18.00	Panama	1991	1.18	11.96	17.67
Bolivia	1997	8.94	3.57	26.33	Panama	1995	8.19	10.03	17.52
Bolivia	1999	5.38	3.10	12.88	Panama	1997	7.61	10.11	15.35
Brazil	1992	13.14	15.23	20.69	Panama	1998	7.94	11.23	16.64
Brazil	1993	13.54	14.94	21.54	Panama	1999	5.62	8.45	15.88
Brazil	1995	14.09	14.13	23.44	Peru	1994	9.51	9.11	12.63
Brazil	1996	13.19	14.55	22.38	Peru	1997	8.10	7.72	14.61
Brazil	1997	12.71	15.54	21.38	Peru	1998	12.60	4.19	13.86
Brazil	1998	12.62	14.58	22.72	Peru	2000	9.76	8.86	14.89
Brazil	1999	12.41	15.19	22.25	Paraguay	1995	6.96	10.66	17.44
Chile	1992	2.91	11.81	21.89	Paraguay	1998	14.28	15.39	25.31
Chile	1994	6.96	12.52	22.32	El Salvador	1995	4.29	8.36	17.72
Chile	1996	7.43	11.76	23.38	El Salvador	1997	7.01	9.20	18.74
Chile	1998	6.55	11.67	23.74	El Salvador	1998	5.22	8.13	19.52
Costa Rica	1991	6.79	10.65	14.62	Uruguay	1992	9.76	7.28	15.14
Costa Rica	1993	4.22	9.75	15.46	Uruguay	1995	7.54	8.06	15.66
Costa Rica	1995	5.55	8.73	18.09	Uruguay	1997	7.46	9.20	16.17
Costa Rica	1997	8.56	6.33	15.87	Uruguay	1998	8.76	8.53	14.99
Costa Rica	1998	6.16	5.74	18.85	Colombia*	1990	7.48	9.03	20.55
Guatemala	1998	7.93	13.01	13.83	Colombia*	1991	8.64	9.85	18.04
Honduras	1992	9.74	15.11	14.42	Colombia*	1993	7.09	10.00	19.01
Honduras	1996	10.00	9.97	14.09	Colombia*	1995	6.78	8.70	20.48
Honduras	1997	5.78	3.55	14.33	Colombia*	1996	5.27	10.00	20.33
Honduras	1998	3.58	4.92	10.59	Colombia*	1997	8.14	9.98	19.99
Honduras	1999	0.99	3.67	13.61	Colombia*	1998	7.72	10.06	20.14
					Colombia*	1999	6.68	9.57	20.87

Source: Duryea and Pages (2001a).

* Dependent variable is hourly wage from all jobs since wages from primary job are not available.

References

- Duryea, S., A. Cox Edwards and M. Ureta. 2001. "Women in the LAC Labor Market: The Remarkable 1990s." Women in Development Working Paper. Washington, DC, United States: Inter-American Development Bank.
- Duryea, S., and C. Pagés. 2001a. "Human Capital Policies: What they Can and Cannot do for Productivity and Poverty-reduction in Latin America." Forthcoming in: *American Foreign Economic Relations: Policy Dilemmas and Opportunities*. Miami, United States: North South Press.
- Duryea, Suzanne and Carmen Pages. 2001b. "Latin American Labor Markets: The Stylized Facts." Paper presented at the Conference on Latin American Labor Markets, Center for Research on Economic Development and Policy Reform, Stanford University.
- Inter-American Development Bank. 2001. *Competitiveness: The Business of Growth. Economic and Social Progress Report 2001*. Washington, DC, United States: Inter-American Development Bank.
- International Labour Organization (ILO). 2000. *Key Labor Market Statistics*. Geneva, Switzerland: ILO.
- Maloney, William. 1999. "Does Informality Imply Segmentation in Urban Labor Markets?" *World Bank Economic Review* 13(2): 275-302.
- Maloney, William and Alec R. Levenson. 1998. "The Informal Sector, Firm Dynamics, and Institutional Participation." Working Paper 1988. Washington, DC, United States: World Bank.
- Organisation for Economic Cooperation and Development (OECD). 1996. "Earnings Inequality, Low Paid Employment and Earning Mobility." In: *Employment Outlook*. Paris, France: OECD.
- Székely, M. 2001. "The 1990s in Latin America: Another Decade of Persistent Inequality, but with Somewhat Lower Poverty." Research Department Working Paper 454. Washington, DC, United States: Inter-American Development Bank, Research Department.