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WIDER Working Paper 2015/073

## **The growth-employment-poverty nexus in Latin America in the 2000s**

Colombia country study

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September 2015

**Abstract:** Between 2000 and 2013, Colombia experienced rapid economic growth. The country suffered a slowdown at the beginning of the period and during the international crisis of 2008, but during both slowdowns, the growth rate never turned negative. Most labour market indicators improved and followed the pattern of economic growth over the period. The only labour market indicator that did not improve between 2001 and 2013 was the employment structure by occupational position. The labour market indicators that were not affected negatively by the economic crisis were labour earnings, the poverty indices, and household per capita income inequality.

**Keywords:** Colombia, Latin America, inclusive growth, labour market, poverty

**JEL classification:** O15, J01, J30

**Figures and tables:** Provided at the end of the paper.

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This study has been prepared within the UNU-WIDER project ‘The Growth-Employment-Poverty Nexus in Latin America in the 2000s’, directed by Finn Tarp and Gary S. Fields.

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ISSN 1798-7237 ISBN 978-92-9230-962-6 <https://doi.org/10.35188/UNU-WIDER/2015/962-6>

Typescript prepared by Lesley Ellen for UNU-WIDER.

UNU-WIDER gratefully acknowledges the financial contributions to the research programme from the governments of Denmark, Finland, Sweden, and the United Kingdom.

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## 1 Introduction

Latin America in the 2000s witnessed an unprecedented period of growth with poverty and inequality reduction. The region also suffered from the economic crises in Europe and the United States from 2007/08 onwards.

Economic development has been defined as a widespread improvement in the material standards of living of a country's people. Economic growth is defined as an increase in the total amount of goods and services produced in an economy.

This paper on labour markets and growth in Colombia since 2000 is one of sixteen studies of Latin American countries, each of which aims to answer the following broad questions: Has economic growth resulted in economic development via improved labour market conditions in Latin America in the 2000s, and have these improvements halted or been reversed since the Great Recession? How do the rate and character of economic growth, changes in the various labour market indicators, and changes in poverty relate to each other?

More specifically:

- What was the country's economic growth experience?
  - Characteristics of economic growth: breakdown by sector (agriculture, industry, services).
- How have the following indicators of labour market conditions changed in the course of each country's economic growth?
  - 1. Employment and unemployment:
    - a. Unemployment rate, using International Labour Organization definition.
    - b. Employment-to-population ratio.
    - c. Labour force participation rate.
  - 2. Employment composition:
    - a. Occupational group—professional, managerial, and clerical, etc.
    - b. Occupational position—wage/salaried employee, self-employed, unpaid family worker, etc.
    - c. Sector of employment—agriculture, manufacturing, services, etc.
    - d. Education level—low, medium, high.

- e. Registered/unregistered with the nation's social security system.
- 3. Labour market earnings, real:
    - a. Overall.
    - b. Disaggregated by gender.
    - c. Disaggregated by age (youth/non-youth).
    - d. Disaggregated by occupational group.
    - e. Disaggregated by occupational position.
    - f. Disaggregated by sector (agriculture etc.).
    - g. Disaggregated by education level (low, middle, high).

The answers to the preceding questions are by no means obvious. Claims have been made that economic growth in Latin America has been jobless, that productivity has grown at the expense of employment, and that Latin America, having even greater economic inequality than the United States, may have been following the US's course of rising incomes for those at the very top of the income distribution and stagnating or even falling incomes for the great majority, especially the poor. It has also been claimed that Latin America is caught in a middle-income bind, squeezed between the advanced economies on the one hand and emerging economies, especially China, on the other.

Recent evidence has shown that economic growth generally leads to an improvement in labour market conditions and reductions in poverty within developing countries (Fields 2012). The relatively scarce evidence for Latin America, however, indicates some heterogeneity at the country level. In the case of Argentina, the strong growth that followed the economic meltdown of 2001–02 was accompanied by large employment gains and increases in labour earnings, with higher gains (in relative terms) for less skilled workers. This process led to a large reduction in poverty in the 2003–06 period (Gasparini and Cruces 2010). In Brazil, economic growth during the period 1996–2004 was relatively low. In this context, unemployment remained high and labour earnings low, while poverty increased (Fields and Raju 2007). Nicaragua also experienced economic growth during the period 2001–06, and although there were increases in employment levels, overall poverty did not fall significantly (Gutierrez et al. 2008). The 2000–06 period of economic growth in Mexico was accompanied by improvements in employment composition, rising real labour earnings, and falling poverty, although the country also experienced rising unemployment levels in those years (Rangel 2009). The relatively long period of economic growth in Costa Rica (1976–2000) took place with increases in labour income, a reduction of employment in agriculture, and improvements in education, with a reduction in poverty levels (Fields and Bagg 2003). Finally, the period of economic growth in Colombia between 2002 and 2011 led to a reduction in unemployment and poverty levels (Ham 2013). This mixed evidence indicates that the growth-employment-poverty nexus is fairly complex and the experiences of Latin American countries are far from homogeneous.

Limited evidence is available on the mechanisms underlying the growth-labour markets-poverty nexus in Latin America. For instance, a World Bank (2011) study finds that the increase in men's labour income was higher than that of women's in the 2000s, and that this was the most important factor in lifting households out of poverty, even though World Bank (2013) shows that the increase in the labour force over this period was mainly led by women. Inchauste (2012) reports that job-related events were the main escape route from poverty for Latin American households over the same period, and these events included household heads getting a new job, other family members starting to work, and those employed achieving higher labour earnings than before.

Overall, previous studies generally show a positive association between economic growth, improvement in labour market indicators, and reduction in poverty in Latin American countries. However, the tightness of these relationships is not always clear from these studies. Moreover, these regional aggregates mask the heterogeneity at the country level, which implies that little can be said about the underlying mechanisms at play. This paper on Colombia is one of sixteen case studies which, taken together, will allow us to separate and identify country-specific from region-wide factors in the relationship between the economy's overall performance and labour market outcomes in the decade of 2000s.

## **2 Data and methodology**

All the statistics in this paper are obtained using microdata from the Encuesta Continua de Hogares (ECH) from 2001 to 2005 and Gran Encuesta Integrada de Hogares (GEIH) from 2008 to 2013. The nationwide surveys were incorporated into the SEDLAC—Socio Economic Database for Latin American and the Caribbean (CEDLAS and the World Bank 2014); three of the authors of this chapter were involved in this project at CEDLAS (Center for Distributive, Labor, and Social Studies), Universidad Nacional de la Plata in Argentina. The ECH's sample size has increased over time; it went from 32,104 households and 132,957 persons in 2001 to 37,580 households and 148,430 persons in 2005 (Table 1). The GEIH increased its size slightly in terms of households (56,568 households in 2008 and 57,238 in 2013) but it decreased in terms of persons (209,502 persons in 2008 and 198,019 in 2013). Both surveys are representative of the total population of the country.

For this study, we processed the microdata from Colombia to construct time series of comparable data for a wide range of labour market and income distribution indicators. Most labour market indicators are comparable over time despite the change in the survey instrument in 2008. The resulting indicators are compiled into a large number of tables and figures, provided at the end of this paper, which form the basis for the text that follows. We use a vertical line in a figure or a horizontal line in a table when the series are consistent on each side of the line but not from one side of the line to the other, e.g. when the country changed a classification so that it is not possible to use a consistent definition throughout the full time period. Each time a line is used, a note stating its meaning is added to the table or figure.

Several definitions and classifications are used in order to assess whether the labour market has improved or deteriorated. Unemployment is defined as usual, i.e. the share of unemployed people over the economically active population. A person is unemployed if s/he is 15 years old or more and

during the reference period (one month in the Colombian surveys), s/he was without work, available for work and seeking work. Youths are those between 15 and 24 years old, while adults are those between 25 and 65 years old.

Occupational groups are defined according to the following classification:<sup>1</sup> management; professionals; technicians and associate professionals; clerical; service and sales workers; agricultural, forestry and fishery workers; craft and related trades workers; plant and machine operators and assemblers; elementary and armed forces. Colombia has made use of an adaptation of the International Standard Classification of Occupations of 1988 (ISCO-88) whose primary categories correspond to the classification systems endorsed by the authors. An improvement in the labour market would be implied by a decrease in the share of low-earning occupations and an increase in the share of high-earning occupations.

The occupational position is classified into four categories: employer, wage/salaried employee, self-employed, and unpaid worker. Given the nature of labour markets in Latin America, the analysis of the employment structure according to occupational positions will identify a decrease of self-employment and an increase in wage/salaried employees as an improvement in the labour market.

The sector of employment was divided into: primary activities; low-tech industry; high-tech industry; construction; commerce; utilities and transportation; skilled services; public administration; education and health; and domestic workers. When looking at the sectoral distribution of employment, an improvement in the labour market is implied by an increase in the share of the sectors with higher earnings.

Turning now to the educational level of employed workers, we define three categories for the analysis: low (eight years of schooling or less); medium (from nine to thirteen years of schooling); and high (more than thirteen years of schooling). An increase in the education level of the employed population is considered as an improvement in the labour market as the share of workers that are expected to receive high levels of earnings increases and the share of workers with low earnings' levels decreases.

We also classify employed workers according to whether they are registered with the social security system or not. It was not until the GEIH in 2008 that the Colombian household surveys began collecting data on the registration of workers with the social security system. We assume that it is better for employed workers to be registered, so an increase in this indicator will be interpreted as an improvement in the labour market.

Labour earnings are expressed on a monthly basis in 2005 purchasing power parity (PPP) dollars, and higher earnings represent an improvement in the labour market. The Colombian statistical agency made an adjustment of income variables in the GEIH to ensure the comparability of statistics between surveys, except for 2001 when income variables are not comparable to any of the following years. To compute poverty and inequality statistics, we use the per capita household income. Household income is the sum of labour income plus non-labour income; included in non-

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<sup>1</sup> This is the International Standard Classification of Occupations of 2008 (ISCO-08) at one digit level.

labour incomes are capital income, pensions, public and private transfers, and the imputed rent from own-housing.

Poverty rates are estimated considering the national lines for moderate and extreme poverty. We compute the poverty headcount ratio for each. The national lines are not available for 2001. We also calculate the share of working poor households (those with at least one member employed and a per capita family income below the moderate poverty line), and the poverty rate according to the international poverty lines of 4 dollars-a-day and 2.5 dollars-a-day. Income inequality is calculated using the Gini coefficient of per capita household income and labour earnings.

### 3 Empirical results

*Colombia experienced rapid economic growth between 2000 and 2013. The economy suffered a slowdown as a consequence of the international crisis of 2008, but GDP and GDP per capita growth rates were nonetheless positive in 2009 (Figures 1 and 2).*

Between 2000 and 2012, Colombia experienced rapid economic growth by Latin American standards. GDP per capita increased by 42.4 per cent overall, while the average for the eighteen Latin American countries was 36.2 per cent during the same period. GDP (measured at PPP dollars of 2005) grew by 72.5 per cent, and GDP per employed person rose by 23.9 per cent. The annual growth rate of GDP per capita was 2.8 per cent, and it was never negative, oscillating from a minimum of 0.0 per cent in 2001 to a maximum of 5.3 per cent in 2007 (Table 2). At the beginning of the 2000s, Colombia was immersed in a phase of GDP contraction that was initiated with the Asian crisis in 1997 and which led to a severe financial and banking crisis. Some other factors continued to affect negatively the country in 2000 and 2001, such as a weakening in external demand, a fall in coffee prices to historically low levels, a high level of private debt that subdued consumption, and a lack of progress in resolving internal conflicts related to the guerrilla activities (IMF 2002). In 2001, GDP and GDP per capita growth rates reached their lowest levels for the period analysed, but even then, they remained non-negative (1.7 per cent and 0.0 per cent respectively). Starting in 2003, Colombia benefited from some external factors that contributed to the recovery of the economy (Mesa 2007). First, the increase in external demand and in the terms of trade led to a rapid growth of mineral and hydrocarbon exports. Second, remittances from abroad exhibited an unprecedented increase. Third, the reduction in the risk premium of emerging economies encouraged the arrival of foreign direct investment, while the lower interest rates and increased liquidity stimulated the local investment (Núñez and González 2011). On the domestic side, macroeconomic stability was achieved with prudent fiscal management, inflation targeting, a flexible exchange rate, and effective financial supervision and regulation (IMF 2013). From 2003 to 2008, the economy grew rapidly at 5.2 per cent a year, while GDP per capita increased at 3.5 per cent annually. The international crisis led to a slowdown of the economy, but even then GDP and GDP per capita growth rates were positive. The policy response to the international crisis comprised countercyclical measures mainly related to interest rates management, prioritization of already planned government expending on infrastructure, and precautionary securing of public debt financing (Arguello 2011). The growth rate of GDP was 3.6 per cent in 2008 and 1.7 per cent in 2009, and those figures for GDP per capita were 2.1 and 0.2 per cent respectively. The economy recovered previous growth rates quickly based on the boom of mineral exports and despite the

severe floods of 2010 and the loss of Venezuela as an export market (OECD 2013). The country surpassed the pre-crisis growth rates by 2010 and kept on growing up to the end of the period.

The share of the industry sector in the economy increased, while the shares of the agricultural and service sectors diminished between 2000 and 2013. The share of the industry sector increased from 29.4 per cent in 2000 to 37.2 per cent in 2013 led by the growth in the mineral subsector (Table 2). On the other hand, the share of the service sector, the largest in the Colombian economy, diminished during the same period from 61.6 per cent in 2000 to 56.8 per cent in 2013. The agricultural sector also reduced its share in the total economy from 9.0 per cent in 2000 to 6.1 per cent in 2013. Turning to the crisis years, agriculture was the only sector affected by the international crisis of 2008. In 2009, the value added of this sector fell by 0.7 per cent and recovered its pre-crisis level by 2011. The industry and service sectors continued to grow throughout the crisis episode.

*The 2001–13 period witnessed a reduction in the aggregate unemployment rate and in the unemployment rate for all population groups. Within this period, the unemployment rate increased in the early years and during the international crisis of 2008, but otherwise decreased (Figure 3).*

The unemployment rate (measured as the ratio of unemployment to labour force) dropped from 13.6 per cent in 2001 (2,433,367 unemployed people) to 9.0 per cent in 2013 (2,070,065 unemployed people). Initially, the unemployment rate increased in conjunction with the slowdown of GDP from 2001 to 2002, growing from 13.6 to 14.3 per cent. In 2002, the unemployment rate began a downward trend. The reduction that took place between 2002 and 2004 was related to changes in labour market regulations, such as the reduction in payment of overtimes and the lack of any obligation to pay pension contributions for learning contracts (Núñez 2005). The reducing trend was interrupted by the international crisis of 2008, when the aggregate unemployment rate increased from 10.9 per cent in 2008 to 11.6 per cent in 2009 (279,599 new unemployed people). Both the number of people in the labour force and the number of employed persons increased between 2008 and 2009 by 1,147,974 and 868,375 respectively. These figures suggest that the increase in the unemployment rate during the international crisis was brought about by the entry of new people into the labour market who could not find a job. The unemployment rate resumed a falling trend in 2010 and kept on decreasing through the end of the period studied, reaching 9.0 per cent in 2013. Even when the unemployment rate fell over the period analysed, the reduction was small compared to economic growth of the country (Núñez and González 2011). The reasons are: the increasing hiring costs of labour over the decade (minimum wage and non-salaried costs) despite the reduction in some components of labour costs in the first years; the decreasing costs of capital; and the growth process based on mineral and hydrocarbon exports, which is typically a capital-intensive activity.

Between 2001 and 2013, the unemployment rate decreased for all population groups. Between 2001 and 2013, the unemployment rate dropped from 26.1 per cent to 18.7 per cent for young workers, from 10.4 per cent to 6.9 per cent for adult workers, from 11.1 per cent to 7.0 per cent for men, and from 17.2 per cent to 11.7 per cent for women. Adult workers were hit harder than young workers by the increase in the unemployment rate in the first years of the period (rise of 0.7 percentage points for adult workers and 0.2 for young workers from 2001 to 2002) and by the increase during the Great Recession (0.9 and 0.1 for adults and youths respectively between 2008 and 2009). Similarly, women suffered larger increases in their unemployment rate compared to men, both at the beginning of the period (increases of 1.0 and 0.6 percentage points for women and men respectively)



and during the international crisis of 2008 (rises of 0.8 and 0.6 percentage points for women and men). The unemployment rate recovered the downward trend in 2010 for all population groups.

*The composition of employment by occupational group improved between 2001 and 2013 as workers moved from agricultural, forestry and fishery occupations, and craft and trade jobs to better paying occupations like professional, armed forces, and management. All population groups—young and adult workers, men and women—benefited from the improvement in the composition of employment by occupational group over the period. The international crisis of 2008 led to a worsening in the structure of employment by occupational groups from which the labour market did not completely recover by 2013 (Figure 4).*

The share of the following occupations shrank between 2001 and 2013: agricultural, forestry and fishery occupations (drop of 4.4 percentage points); plant and machine operators (drop of 1.4 percentage points); and craft and trade occupations (drop of 0.8 percentage points). The share of the following occupations grew: elementary (increase of 3.0 percentage points); armed forces (increase of 2.3 percentage points); technicians (increase of 0.8 percentage points); and professionals (increase of 0.7 percentage points). The share of the other occupational groups changed only a little (Table 3). These changes in the occupational composition of employment can be interpreted as an improvement since low-earning occupations (agricultural, forestry and fishery occupations, craft and trade jobs, and service and sales occupations) reduced their share in total employment by 5.1 percentage points between 2001 and 2013, while high-earning (professional, armed forces, and management) and mid-earning occupations (technical occupations, clerical jobs, plant and machine operators, and elementary occupations) gained shares in total employment (increases of 3.1 and 2.0 percentage points respectively) (Table 6).

The improvements in the occupational composition of employment between 2001 and 2013 were observed for young and adult employed workers and for men and women. The decrease in share of low-earning occupations in total employment was larger among youth compared to adults (drop of 10.8 percentage points for youth versus 3.5 for adults), while the increase in the share of high-earning occupations was similar between age groups (2.9 and 3.0 percentage points respectively for youth and adults). When the analysis is broken down by gender, men experienced a larger reduction in the share of low-earning occupations and a larger increase in the share of high-earning occupations in total employment compared to women (drops of 6.3 and 4.1 percentage points and increases of 4.2 and 1.4 percentage points for men and women respectively).

The international crisis of 2008 affected adversely the composition of employment by occupational group in the aggregate and for all population groups. Between 2008 and 2009, the share of low-earning occupations in total employment grew by 3.3 percentage points, while the share of high-earning occupations fell by 1.3 percentage points. Disaggregating, the increase in the share of low-earning occupations in total employment was 2.5 percentage points for young workers, 3.0 percentage points for adults, and 3.2 percentage points for both men and women. At the other end of the scale, the share of high-earning occupations fell by 0.3 percentage points for young workers, 1.4 percentage points for adults, 0.8 percentage points for men and 1.9 percentage points for women. The share of low-earning occupations began a downward trend in the aggregate and for all population groups in 2010. Young workers and men returned to their pre-crisis shares of low-earning occupations in 2012 and 2013 respectively, while the shares in the aggregate and for adults and women never recovered their pre-crisis level. The share of high-earning occupations began an

upward trend in 2010 for all population groups, and while young workers, adults and men returned to their pre-crisis shares in 2010, 2012 and 2011 respectively, women never recovered. In the aggregate, the share of high-earning occupations in total employment recovered the pre-crisis level in 2012.

*The employment structure by occupational position deteriorated between 2001 and 2013 for the employed population as a whole and for youth, adults, and women. The worsening trend in the employment structure by occupational position continued during the international crisis of 2008 in the aggregate and for young, adult workers, and women, while men experienced a slight improvement (Figure 5).*

Between 2001 and 2013, the share of wage/salaried employees in total employment—the largest category—dropped from 50.0 to 48.3 per cent. The share of unpaid workers also decreased, from 4.7 to 4.4 per cent. On the other hand, the shares of the self-employed and employers increased from 40.9 to 42.8 per cent and from 4.4 to 4.6 per cent respectively (Table 4). These changes can be characterized as a deterioration of the employment structure by occupational position, as the share of low-earning categories (self-employment and unpaid employment) increased by a total of 1.6 percentage points and the share of high-earning categories (paid employees and employers) decreased.

Between 2001 and 2013, the employment structure by occupational position deteriorated for young and adult workers, and women. From 2001 to 2013, employment in low-earning positions increased in percentage terms for young workers (4.6 percentage points). The percentage of employed youth in high-earning positions decreased, indicating a worsening in the employment structure by occupational position over time. For adults, employment in low-earning positions grew over the period by 0.8 percentage points. As a consequence, there was a worsening in the employment structure by occupational position over the period for adults. For women, there was also a worsening in their employment structure as the share of low-earning positions in total employment increased by 3.6 percentage points and consequently the share of high-earning positions dropped. For men, the structure of employment by occupational position remained essentially unchanged over the period (increase of 0.2 percentage points in the share of low-earning positions in total employment).

The worsening in the structure of employment by occupational position is striking in a growing economy where the unemployment rate is declining. However, the reduction in the unemployment rate during the 2000s was small compared to economic growth in Colombia, and that was related to increasing labour costs and a growth process based on capital-intensive sectors (Núñez and González 2011). In this context, the rise in the share of self-employment can be understood as a response to the rigidities in the creation/preservation of wage/salaried jobs.

The international crisis of 2008 did not affect the worsening trend in the employment structure by occupational position in the aggregate and for young, adult workers, and women, while a slight improvement for men took place during the crisis. Between 2008 and 2009, the share of low-earning positions in total employment continued to increase in the aggregate and for youth, adults, and women. On the contrary, men experienced an increase in the share of employers in total employment (rise of 0.7 percentage points) and a decrease in the share of the self-employed (drop of 0.7 percentage points), which can be interpreted as a slight improvement. Men kept the share of

low-earning positions in total employment below the pre-crisis value up to the end of the period studied.

*The employment composition by economic sector improved over the course of the period studied overall and for young and adult workers, men, and women. The international crisis of 2008 led to a worsening in the structure of employment by economic sector in the aggregate and for all population groups from which young, adult workers, and men recovered completely, but women did not (Figure 6).*

The share of the following sectors fell between 2001 and 2013: primary activities (drop of 4.3 percentage points); domestic workers (drop of 2.7 percentage points); and low-tech industries (drop of 1.5 percentage points). The mining and hydrocarbon subsector, the main driving force of the Colombian economy during the period analysed, is included in the primary activities sector in our classification. The mining and hydrocarbon subsector is capital-intensive and does not employ a large share of workers. The increase in its share of total employment over the period was counteracted by the reduction in the employment share of the agricultural subsector. The share of the following sectors grew: skilled services (increase of 3.4 percentage points); construction (increase of 1.7 percentage points); commerce (increase of 1.4 percentage points); utilities and transportation (increase of 1.4 percentage points); and education and health (increase of 0.6 percentage points). The share of the other sectors changed only a little (Table 5). These changes in the employment composition by economic sector can be interpreted as an improvement since low-earning sectors (domestic workers, primary activities, and commerce) reduced their share in total employment by 5.6 percentage points between 2001 and 2013, while high-earning (public administration, skilled services, and education and health) and mid-earning sectors (high-tech industry, utilities and transportation, construction, and low-tech industry) gained share in total employment (increase of 4.0 and 1.6 percentage points respectively) (Table 6).

Broken down by population groups, the employment composition by economic sector improved between 2001 and 2013 for young and adult workers, men, and women, as they moved from low-earning sectors to high-earning sectors. For young workers, the share of low-earning sectors in total employment dropped from 62.4 per cent in 2001 to 51.8 per cent in 2013. For adult workers, the share of low-earning sectors fell from 50.7 per cent in 2001 to 46.5 per cent in 2013. At the other end of the scale, the share of high-earning sectors in total employment increased from 16.1 per cent in 2001 to 20.9 per cent in 2013 for young workers and from 23.4 per cent to 27.1 per cent for adults. For both genders, the share working in low-earning sectors fell from 55.0 per cent in 2001 to 48.3 per cent in 2013 for men, and from 52.6 per cent to 48.5 per cent for women. The share of high-earning sectors in total employment grew from 16.1 per cent to 18.7 per cent for men and from 29.6 per cent to 34.7 per cent for women.

The international crisis of 2008 led to a worsening in the employment structure by economic sector overall and for all population groups. Between 2008 and 2009, the share of low-earning sectors in total employment increased by 2.5 percentage points for young workers, 0.3 percentage points for adults, 1.3 percentage points for men, and 0.5 percentage points for women. The share of employed workers in high-earning sectors fell by 0.3 percentage points for adults, 0.4 percentage points for men, and 0.5 percentage points for women, while it continued to increase for young workers. Young workers, adult workers, and men recovered their pre-crisis shares of employment in low- and high-

earning sectors in the following years, while women recovered the share of working in high-earning sectors, but not the share of working in low-earning sectors.

*The educational level of the employed population in Colombia improved from 2001 to 2013 for the entire population and for youth, adults, men, and women. The international crisis of 2008 led to a worsening in the employment structure by educational level in the aggregate and for all population groups, but all of them recovered the pre-crisis structure in the following years (Figure 7).*

The share of employed persons with low educational levels (eight years of schooling or less) dropped from 56.1 per cent in 2001 to 42.6 per cent in 2013, while the share of employed persons with medium and high educational levels (nine to thirteen years of schooling and over thirteen years of schooling) grew from 31.1 per cent in 2001 to 39.6 per cent in 2013 and from 12.8 per cent to 17.8 per cent respectively.<sup>2</sup> We interpret this result as an improvement for the employed population as the level of education is an important predictor of labour earnings. Consequently, the changes in the employment structure by educational level implied an increase in the share of workers that tend to have high levels of earnings and a decline in the share of workers with low earnings' levels.<sup>3</sup> The improvement in the educational level of the employed population reflects the improvement in the access to education for the entire population of Colombia. However, the quality of education is low; the enrolment rates in tertiary education are low and the inequality high, and a substantial gap between education levels of the poor and the rest of the population exists (World Bank 2009).

The educational level of the employed population improved between 2001 and 2013 for all groups. For the youth population, the share of employed workers with low educational levels dropped from 47.8 per cent in 2001 to 28.9 per cent in 2013 (a drop of 18.9 percentage points). The share of young employed persons with medium and high educational levels grew by 12.9 and 6.1 percentage points respectively. The reduction in the share of adult employed persons with low educational levels was lower than the drop for young employed workers, which was a total of 13.0 percentage points over the period. The share of adult employed persons with medium and high educational levels increased over the period by 8.4 percentage points and 4.6 percentage points respectively. When broken down by gender, the reduction in the share of employed workers with low educational levels was 13.7 percentage points for men and 12.4 percentage points for women, while the share of employed persons with medium and high educational levels climbed by 9.3 and 4.5 percentage points for men and by 6.9 and 5.5 percentage points for women.

The pattern of improvement in the educational level of the employed population in Colombia was affected by the international crisis of 2008. The share of employed persons with low educational levels increased in 2009 in the aggregate and for all population groups, with a corresponding reduction in the share of employed workers with medium and high educational levels. A possible

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<sup>2</sup> The most frequent value of years of education for employed workers in Colombia was 11 for the entire period under study (around 23.8 per cent of employed workers had eleven years of education).

<sup>3</sup> The improvement in the employment structure by educational level is related to changes in the relative demand and supply of workers with high educational levels with corresponding implications for the wage gap by educational group and the unemployment rate of each educational level. We introduce a discussion about the role of these factors in Colombia in the paragraph on labour earnings.

explanation for this worsening in the employment structure by educational level can be found in the previous evidence of increasing unemployment and worsening employment structure by occupational position during the international crisis. Better educated workers could afford to remain unemployed during the crisis, while the less educated workers were compelled by economic necessity to take up free-entry self-employment activities or unpaid family work. The rise in the share of employed workers with low educational levels was 1.3 percentage points for all employed workers, 2.1 for young employed persons, 1.0 percentage points for employed adults, 1.3 percentage points for employed men, and 1.5 percentage points for employed women. By 2011, the share of employed workers with low educational levels recovered the pre-crisis value in the aggregate and for all population groups. The share of workers with medium levels of education returned to its pre-crisis level in 2010 overall and for all groups, while the share of the employed population with high educational levels reached its pre-crisis level in 2013.

*The share of workers registered with the social security system increased from 2008 (the earliest year with data on this indicator) to 2013 in the aggregate and for adults and male workers, while it decreased for young workers and women. Within this period, the registration rate fell from 2008 to 2010, a period that included the Great Recession, and increased from 2010 to 2013 (Figure 8).*

The social security system in Colombia is comprised of a contributory scheme and a non-contributory scheme. The contributory pension scheme contains two different regimes: the *Régimen Solidario de Prima Media con Prestación Definida* (a defined contributions regime) and the *Régimen de Aborro Individual con Solidaridad* (an individual accounts regime). Affiliation to the pension system is compulsory for both dependent and independent workers, although they might choose the regime of preference and change it once every five years. The contributory pension scheme is financed through contributions made by employees and employers. The non-contributory pension scheme, *Fondo de Solidaridad Pensional*, provides pension subsidies to those persons who cannot afford to make contributions and is financed by the government. The non-contributory pension scheme covers informal workers, and disabled and unemployed workers. Cash or in-kind transfers are also provided for the protection of elders, such as *Programa de Protección Social al Adulto Mayor* and *Programa Nacional de Alimentación al Adulto Mayor*. The contributory health scheme is available to persons with greater payment capacity, including formal and independent workers, employers, and pensioners. The non-contributory health scheme provides attention to persons lacking payment capacity. The financing of the contributory regime is made through contributions charged to the employers and employees (Mina Rosero 2013).

The percentage of workers registered with the contributory scheme of the social security system increased by 1.4 percentage points between 2008 and 2013. From 2008 to 2010, a period that included the Great Recession, the share of registered workers fell from 33.2 per cent to 30.9 per cent. Interestingly, the number of registered workers increased between 2008 and 2010, from 5,644,701 to 5,818,439. The fall in the registration rate was explained by the more rapid increase in the number of employed person compared to the increase in the number of registered workers during this period. From 2010 to 2013, the share of registered employment grew steadily, reaching 34.6 per cent in 2013 (1,298,793 new registered workers between 2010 and 2013). Despite the Colombian growth in the last years of the period analysed, the registration rate is still very low. Non-salary labour costs in the formal sector are very high in Colombia, even when compared to OECD

standards (OECD 2013). The increased labour costs, along with the universal coverage of basic public services like health, discouraged the registration of workers (Parra Torrado 2010).

The Colombian government implemented some measures aimed at increasing the registration rate, especially in the last years of the period analysed. In 2010, it decreased social security contributions for new firms and for those who create employment for young workers, women aged 40 years or more, and disabled workers (OECD 2013; ILO 2014). In 2013, the government implemented deductions for taxes that firms pay on salaries and social security contributions for workers they formalize; it created the protection mechanism for dismissed workers which guarantees social protection of workers in the event of unemployment, including continued health and pension coverage and it increased the number of inspectors (ILO 2014).

The percentage of workers registered with the social security system increased for adult employed workers and men, and fell for young workers and women between 2008 and 2013. Among young workers, the share of registered workers dropped from 25.2 per cent in 2008 to 24.3 per cent in 2013. For adult workers, there was an increase in the percentage of registered workers, from 36.2 per cent to 38.5 per cent over the same period. The share of registered employed workers increased from 32.3 per cent in 2008 to 35.1 per cent in 2013 for men, while it fell from 34.7 to 33.9 per cent for women. For all population groups, the percentage of registered workers decreased at the beginning of the analysed period, from 2008 to 2010, and increased in the later years.

The decreasing trend in the share of registered workers that took place at the beginning of the analysed period continued during the international crisis of 2008 in the aggregate and for all population groups. Between 2008 and 2009, the share of workers registered with the social security system fell by 1.4 percentage points overall, 1.7 percentage points for young employed workers, 1.2 percentage points for adults, 1.3 percentage points for men, and 1.5 percentage points for women. Young workers and women never returned to their pre-crisis share of registered employment, while adults and men surpassed their pre-crisis level in 2012.

*Real labour earnings increased between 2002 (the earliest year for which we can compare earnings from the ECH with earnings from the GEIH) and 2013 in the aggregate, for all population groups, and for almost all employment categories. Labour earnings fell in the first year (during which economic growth was zero) and then began an almost steady upward trend that continued as the economy grew even during the international crisis of 2008 and its aftermath. The upward trend held overall, for all population groups and for almost all employment categories (Figure 9).*

Average monthly earnings, expressed in dollars at 2005 PPP, grew by 22.2 per cent, from US\$469 in 2002 to US\$574 in 2013 (Table 6). Labour earnings fell between 2002 and 2003 and rose in the following years for the employed population as a whole. The upward trend in real labour earnings is partly explained by increases in the minimum wage. The minimum wage has been used as a political instrument sometimes, in pre-electoral years for instance, leading to increases larger than the inflation rate (Parra Torrado 2010; OECD 2013). However, it is worth noticing that a large percentage of employed workers are unregistered and do not benefit from the minimum wage legislation.

Labour earnings of young and adult workers, men, and women all increased between 2002 and 2013. Labour earnings increased for young workers between 2002 and 2013 by 40.5 per cent. Adult

employed persons experienced an earnings gain of 19.2 per cent over the same period. The trend in labour earnings for youth and adults reflected the overall time path, with a reduction between 2002 and 2003 and an upward trend from 2003 onwards that was interrupted in 2010 and 2012 only for young workers. The rise in labour earnings over the period was larger for men than for women, with increases of 24.7 and 19.7 per cent respectively. Men and women alike experienced a reduction in labour income between 2002 and 2003, followed by an upward trend that was interrupted in 2011 for men and in 2010 and 2012 for women.

Labour earnings grew between 2002 and 2013 for employed workers in almost all employment categories. All of them suffered a reduction between 2002 and 2003 (a time of non-growth) and an upward trend after that (during which economic growth was positive and above the Latin American average). Labour earnings gains were larger for low-earning categories compared to high-earning categories. The only employment categories that suffered a reduction of labour earnings between 2002 and 2013 were workers in the armed forces (drop of 17.2 per cent), employers (drop of 9.6 per cent), workers in the skilled services sector (drop of 19.0 per cent), and workers with high educational levels (drop of 6.5 per cent). All other employment categories enjoyed increases in their labour incomes between 2002 and 2013. Labour income increases were larger for low-earning categories compared to the gains for high-earning categories. Among occupational groups, the average earnings increase for low-earning occupations was 28.0 per cent, while earnings of high-earning occupations were essentially unchanged (reduction of 0.2 per cent). Disaggregating by occupational position, low-earning positions experience an earnings increase of 21.5 per cent, while high-earning positions had an average earnings increase of 11.1 per cent. Among economic sectors, the average earnings gain was 31.5 per cent for workers in low-earning sectors and 15.9 per cent for workers in high-earning sectors. Highly educated employed workers suffered an earnings reduction of 6.5 per cent, while workers with low and medium educational levels increased their labour incomes by 30.3 per cent and 11.5 per cent respectively.

The evidence of falling labour earnings for workers with high educational levels and increasing labour earnings for workers with low and medium educational levels can be interpreted in light of previous findings of improvements in the employment structure by occupational group, economic sector, and educational level over the period. The improving employment structure by occupational group and economic sector implied an increase in the share of occupations and sectors that can be expected to employ workers with high and medium educational levels, like management, professional occupations and armed forces, skilled services, education and health, and public administration sectors, and a reduction in the share of occupations and sectors that employ workers with low educational levels, like agricultural, and craft and trades occupations, and domestic workers and primary activities sectors. This evidence indicates that the demand for workers with high and medium educational levels relative to those with low educational levels increased between 2001 and 2013. On the other hand, the educational level of people in the labour force improved over the same period, indicating an increase in the relative supply of workers with high and medium educational levels (Table 8). The prediction of a supply and demand analysis is that the relative wages of workers with high and medium educational levels relative to those with low educational levels will rise or fall depending on which effect dominates (increase in the relative demand versus increase in the relative supply). In the Colombian labour market the relative wages of workers with high and medium educational levels relative to those with low educational levels fell over the period, and the relative wages of workers with high educational levels relative to those with medium educational levels also

decreased (Table 7). The adjustment process also led to a reduction in the unemployment rate of all educational groups with a larger decrease for workers with medium levels of education (Table 9).

The international crisis of 2008 did not have a negative effect on the upward trend in labour earnings that began in 2003, a trend that held true in the aggregate and for all population groups. Some employment categories, however, were adversely affected by the 2008 crisis. Among occupational groups, earnings fell between 2008 and 2009 by 11.4 per cent for workers in craft and trade occupations and by 4.8 per cent for agricultural, and forestry and fishery workers. Among economic sectors, workers from primary activities were affected by a reduction in their labour earnings of 5.1 per cent. Agricultural, forestry and fishery workers, and workers from primary activities recovered their pre-crisis levels of labour income in 2010, while craft and trade workers never recovered their pre-crisis level.

*The moderate and extreme poverty rates based on the country's official line and on international poverty lines fell between 2002 and 2013, as did the rate of working poor households. Within this period, poverty indicators experienced a small increase in the first year (from 2002 to 2003), a reduction in the following years (from 2003 to 2011), and a slight increase at the end of the period (from 2011 to 2012). The international crisis of 2008 did not affect negatively the poverty indicators (Figure 10).*

The moderate poverty rate (measured by the country's official poverty line) fell from 46.9 per cent in 2002 to 29.1 per cent in 2013; the extreme poverty rate decreased from 16.1 per cent to 8.3 per cent; the percentage of working poor (defined as the proportion of persons in the population living in poor households where at least one member works) dropped from 35.0 per cent to 19.5 per cent over the same period. When the poverty rate is analysed on the basis of the 2.5 and 4 dollars-a-day PPP international poverty lines, there is also a drop in poverty between 2002 and 2013. When the 2.5 dollars-a-day poverty line is used, the poverty rate drops from 29.8 per cent in 2002 to 15.2 per cent in 2013; when poverty is calculated using the 4 dollars-a-day poverty line, the drop is from 49.6 per cent to 30.8 per cent over the same period. The figures for all these indicators increased between 2002 and 2003 (except for the extreme poverty rate based on the official line) and then began a downward trend that was interrupted in 2012 when all the indicators increased (except for the poverty rate based on the 4 dollars-a-day international line). In 2013, all the indicators resumed the downward trend.

The poverty patterns reported in the last paragraph can be interpreted by examining incomes from various sources. The analysis of sources of household total income indicates that labour income, pensions, and income from capital increased between 2002 and 2013 (Figure 11). On the contrary, remittances declined from 2008 (the earliest we have data on this variable) to 2013. Colombia has experienced strong flows of emigration and remittances in the last two decades (UNFPA 2011). However, during the international crisis the amount of remittances received by the country has been falling and a change is expected in the pattern of migration, with emigrants returning to Colombia and fewer persons leaving the country. Data on income from poverty alleviation programmes is not available in Colombia's national household surveys. There is evidence indicating they have been successful in increasing school enrolment and attendance, and health and nutritional status mainly among children (Attanasio et al. 2005; Attanasio and Mesnard 2006). Moreover, coverage of these programmes has increased during the international crisis of 2008 (Núñez and González 2011).



*Household per capita income inequality and labour earnings inequality decreased between 2002 and 2013, though erratically. The international crisis of 2008 led to an increase in the inequality of labour earning, while the inequality of household per capita income remained unchanged (Figure 12).*

From 2002 to 2013, the Gini coefficient of household per capita income fell from 0.574 to 0.533. The Gini coefficient of labour earnings among employed workers decreased from 0.551 in 2002 to 0.499 in 2013; this reduction in labour earnings inequality is in keeping with the fact that earnings increased more for low-earning employment categories compared to high-earning categories. However, it is interesting to note that earnings declined for some high-earning employment categories. Consequently, the reduction in labour earning inequality in Colombia occurred at the expense of income losses for some categories. The reduction in household per capita income and labour earnings inequality was not steady. The Gini coefficient moved erratically over the period for both income variables. During the international crisis of 2008, the Gini coefficient of labour earnings increased from 0.502 in 2008 to 0.516 in 2010 and returned in 2011 to its pre-crisis level. The Gini coefficient of household per capita income held steady during the crisis.

Changes in household per capita income inequality in Colombia have been related to changes in labour and non-labour incomes. Azevedo et al. (2013b) decomposed the change in the Gini coefficient of household per capita income for the period 2002–10 and found that changes in labour incomes contributed the most to the inequality reduction over this period (the Gini coefficient of household per capita income decreased from 0.574 to 0.553 between 2002 and 2010). Demographical factors, such as the share occupied by adults and the share of adults, and incomes from transfers also contributed to the reduction in household per capita income inequality. On the contrary, incomes from pensions and capital were inequality increasing. Other studies have analysed the factors behind the evolution of labour income inequality. Azevedo et al. (2013a) used a decomposition approach and found that changes in the education wage premium (or the ‘price effect’) were inequality reducing in Colombia between 2002 and 2010 (the Gini coefficient of labour earnings decreased from 0.551 to 0.516 between 2002 and 2010), while changes in the distribution of the stock of education (the ‘quantity effect’) were inequality increasing although the effect was small. Gasparini et al. (2011) found a reduction in the gap between the wages of skilled workers (those with complete or incomplete college education) and unskilled workers (those who have completed secondary education or less) in Colombia between 2001 and 2007. The shrinking educational earnings gap can be explained mainly by the increase in the relative supply of skilled workers, while the relative demand remained unchanged.

#### **4 Conclusions**

By Latin American standards, Colombia experienced rapid economic growth between 2000 and 2013. The economy suffered a slowdown at the beginning of the period and after the international crisis of 2008. During both slowdowns, the growth rates were nonetheless positive.

Most labour market indicators improved between 2001 and 2013. Most of them followed the pattern of economic growth over the period, with a worsening in the early years and an improvement in the following years, interrupted by the international crisis of 2008. The unemployment rate fell between 2001 and 2013. Within this period, the unemployment rate increased in the first year of the series

and during the international crisis of 2008, from which it fully recovered. The composition of employment by occupational group improved between 2001 and 2013 as workers moved from agricultural, forestry and fishery occupations, and craft and trade jobs to better paying occupations like professional, armed forces, and management. The international crisis of 2008 affected negatively the structure of employment by occupational group, from which the labour market only partially recovered by 2013. The employment composition by economic sector also improved over the course of the period studied but was negatively affected by the international crisis of 2008. The sectoral composition of employment did not completely recover by 2013. The educational level of the Colombian employed population improved from 2001 to 2013. Even though the international crisis of 2008 led to a worsening in the employment structure by educational level, the labour market recovered the pre-crisis structure in the following years. The share of workers registered with the social security system increased from 2008 to 2013 (the earliest year with data on this indicator) but was negatively affected by the international crisis of 2008. Real labour earnings increased between 2002 (the earliest year for which we can compare earnings from the ECH with earnings from the GEIH) and 2013. They fell during the first year and then began an almost steady upward trend that was not interrupted by the international crisis of 2008. The moderate and extreme poverty rates, the poverty rates based on international poverty lines, and the rate of working poor households all fell between 2002 and 2013. Within this period, poverty indicators exhibited a small increase at the beginning, a reduction in the following years, and a small increase by the end of the period. Household per capita income inequality and labour earnings inequality also decreased between 2002 and 2013, though erratically. The international crisis of 2008 did not affect negatively the poverty indicators, nor the inequality of household per capita income, but led to an increase in the inequality of labour earning. The only labour market indicator that did not improve between 2002 and 2013 is the employment structure by occupational position, as the share of low-paying positions in total employment increased and the share of high-earning positions fell. The worsening trend in the employment structure by occupational position continued during the international crisis of 2008.

Young workers and women had worse labour market outcomes over the period compared to adults and men respectively, but they have not been more vulnerable to the international crisis. The unemployment rate was higher for young compared to adult workers, the shares of young employed workers in low-earning occupational groups and economic sectors were larger than the shares of adult workers, the percentage of young workers registered with the social security system was lower when compared to adults, and labour earnings of young workers were below those of adults. On the other hand, the share of young workers in low-earning occupational positions was lower when compared to adults. Despite the generally inferior situation of young workers in the labour market in comparison to adult workers, both age groups were equally affected by the international crisis of 2008. The increases in the unemployment rate and in the shares of workers in low-earning positions and occupations were larger for adult workers, while the increase in the share of unregistered workers and workers employed in low-earning sectors were larger for youth. Disaggregating by gender, we found that men were better than women in most labour market indicators, e.g. the male unemployment rate was lower, the share of male workers in low-earning occupational groups and positions were lower compared to women, and labour earnings of men were higher than labour earnings of women. On the other hand, the share of workers in low-earning sectors was larger among men, while the share of unregistered workers was similar among both gender groups. The negative impacts of the crisis affected men and women similarly. Women suffered a larger increase

in their unemployment rate and in the share of workers in low-earning positions, men exhibited a larger increase in the share of workers in low-earning sectors, and both groups suffered a similar increase in the shares of unregistered workers and workers in low-earning occupations.

In summary, notwithstanding the international crisis of 2008, Colombian labour market conditions were in a better state in 2013 than they were at the start of the millennium.

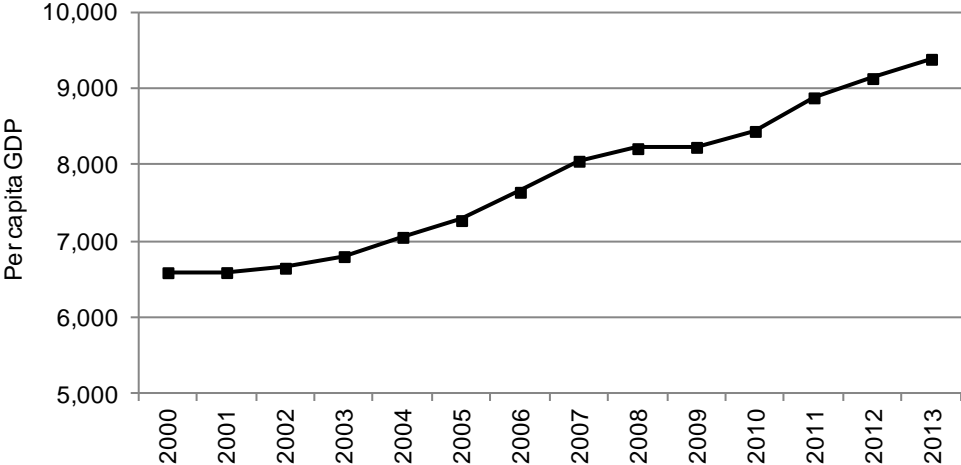
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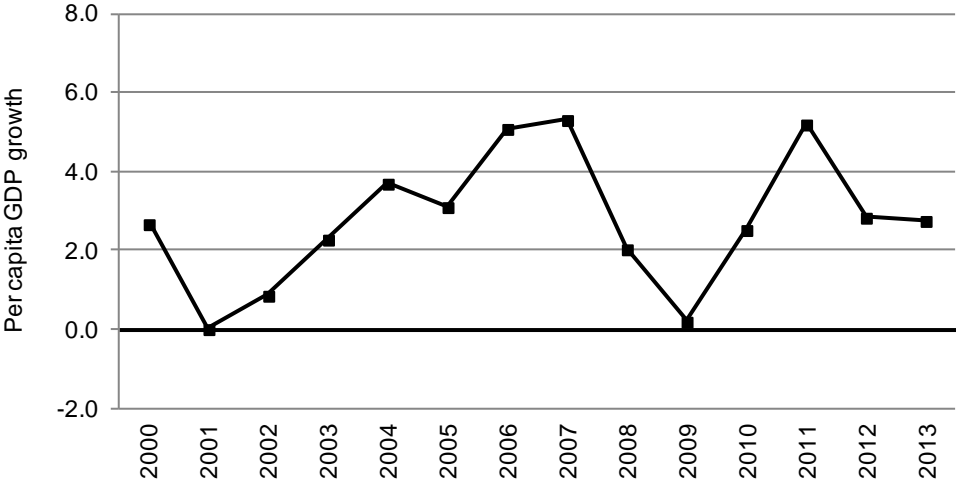
**Figures**

Figure 1: GDP per capita at PPP dollars of 2005, 2000–13



Source: World Development Indicators (the World Bank 2014).

Figure 2: Annual growth of GDP per capita at PPP dollars of 2005, 2000–13



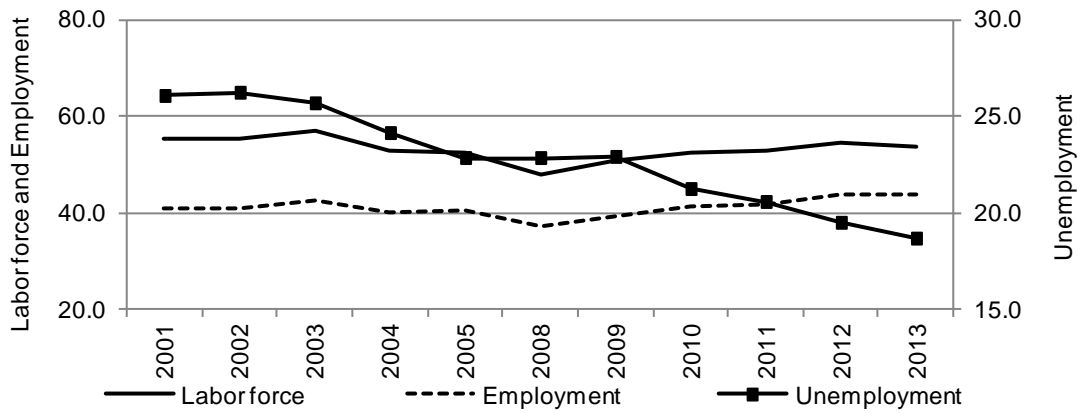
Source: World Development Indicators (the World Bank 2014).

Figure 3: Labour-force rate, employment-to-population rate and unemployment rate: population 15 years old or more, 2001–05 and 2008–13

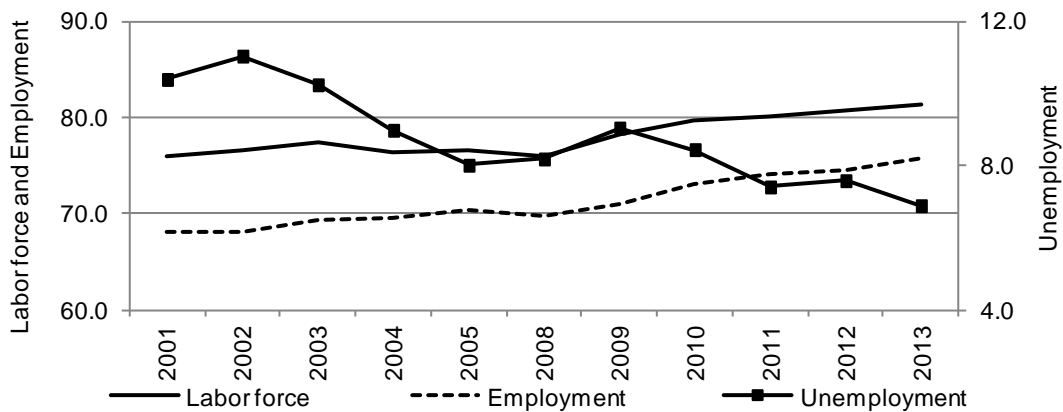
(a) All



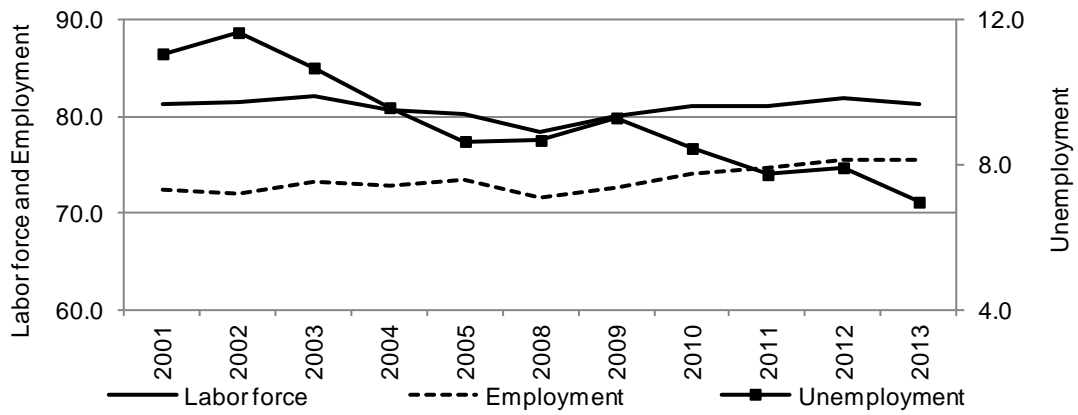
(b) Youth (15 to 24 years old)



(c) Adults (25 to 64 years old)



(d) Men

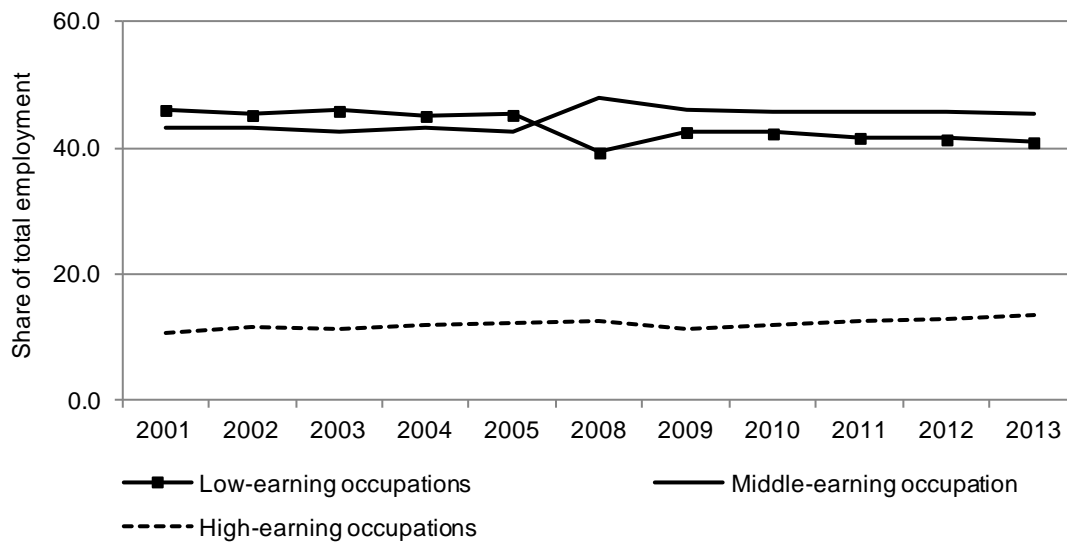


(e) Women



Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 4: Share of employment by occupational group (categories grouped by earning levels): all employed workers, 15 years old or more, 2001–05 and 2008–13

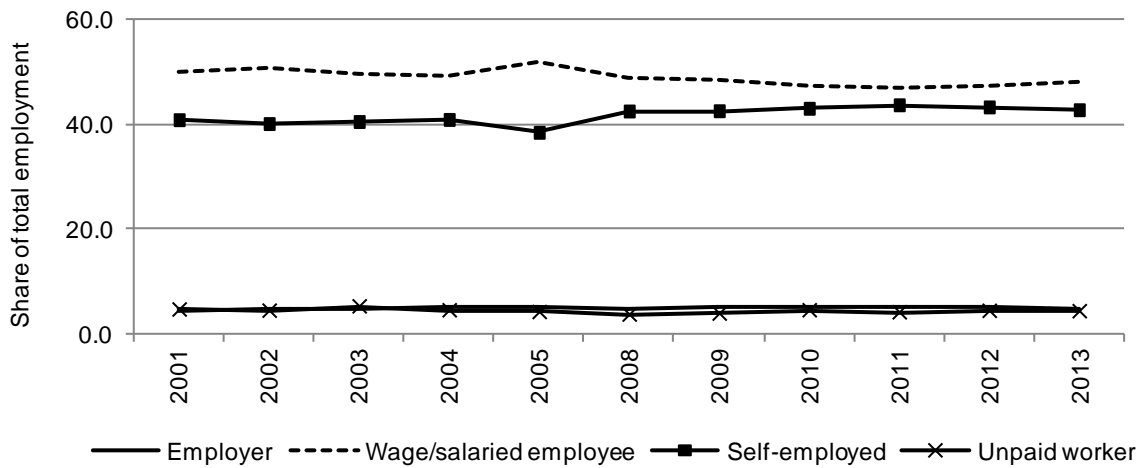


Note: Low-earning occupations: agricultural, forestry and fishery occupations, craft and trades jobs, services and sales. Medium-earning occupations: elementary, plant and machine operators and assemblers, clerical, technicians and associate professionals. High-earning occupations: professionals, armed forces, management.

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

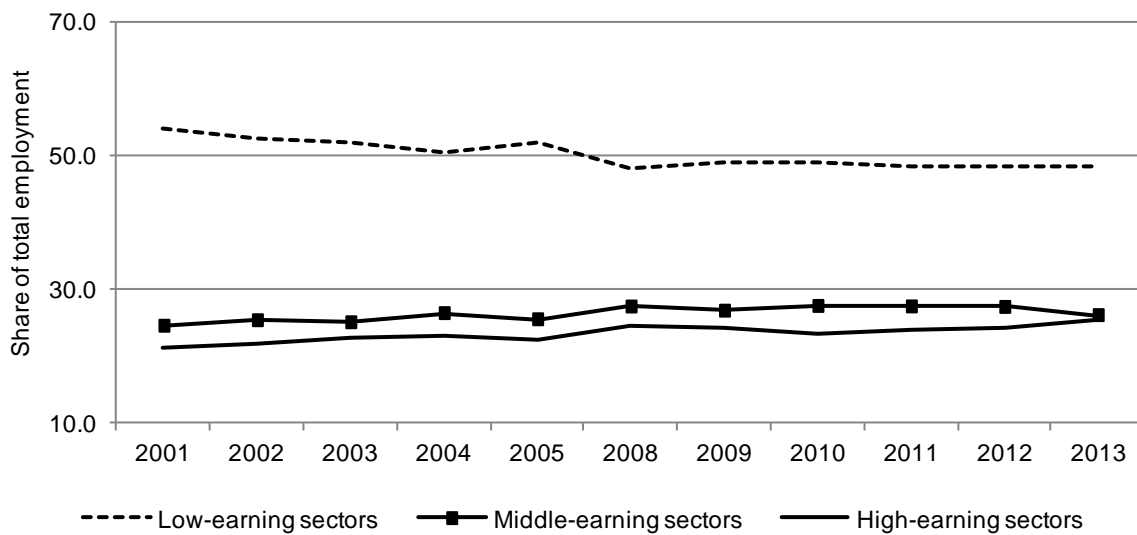


Figure 5: Share of employment by occupational position: all employed workers, 15 years old or more, 2001–05 and 2008–13



Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 6: Share of employment by economic sector (categories grouped by earning levels): all employed workers, 15 years old or more, 2001–05 and 2008–13

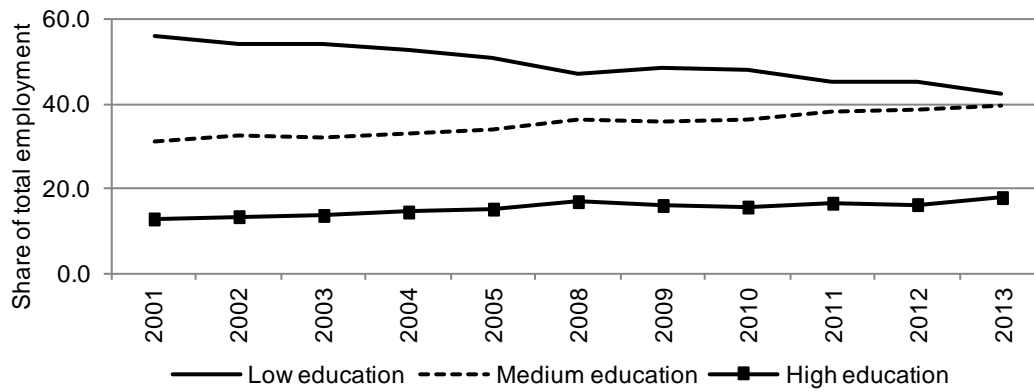


Note: Low-earning sectors: domestic workers, primary activities, commerce. Middle-earning sectors: low-tech industry, construction, utilities and transportation, high-tech industry. High-earning sectors: public administration, skilled services, education and health.

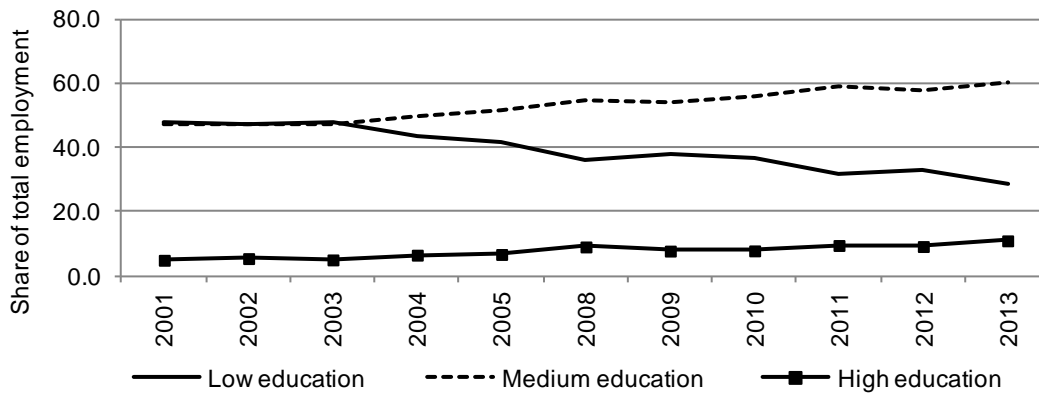
Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 7: Share of employment by educational level: employed workers, 15 years old or more, 2001–05 and 2008–13

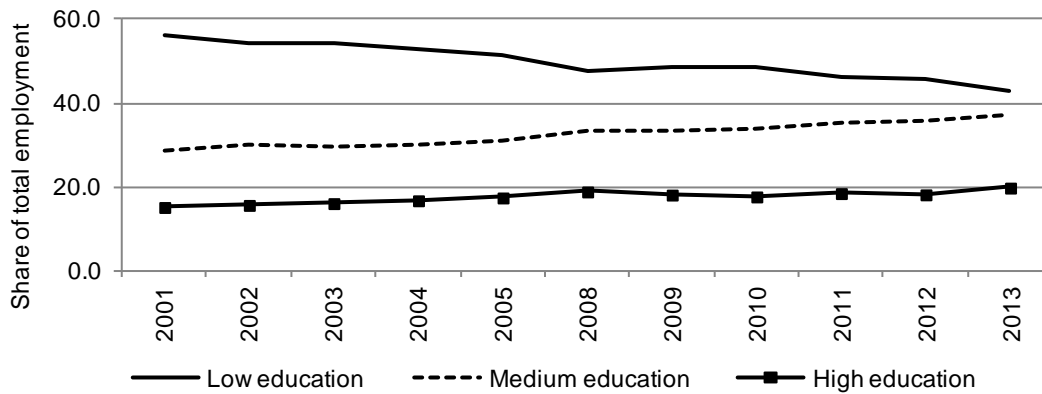
(a) All employed workers



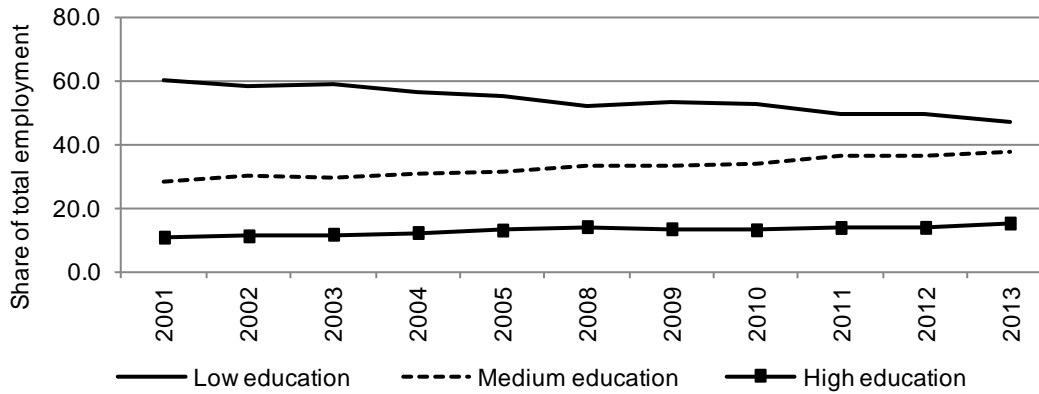
(b) Youth (15 to 24 years old)



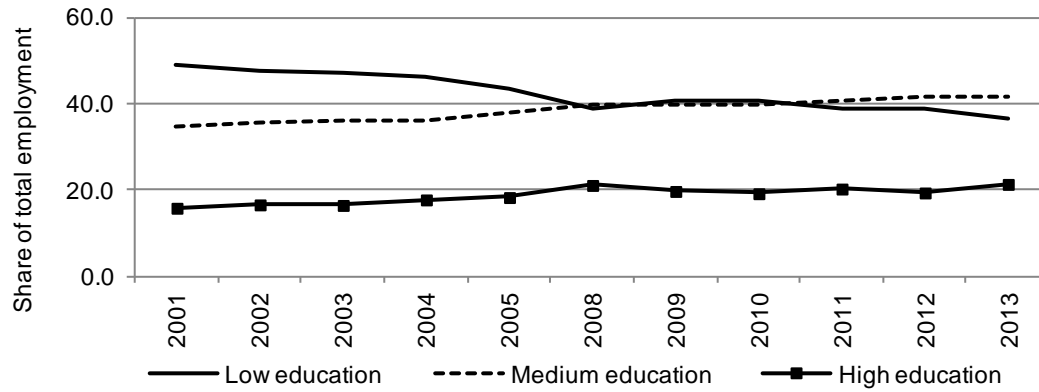
(c) Adults (25 to 64 years old)



(d) Men



(e) Women

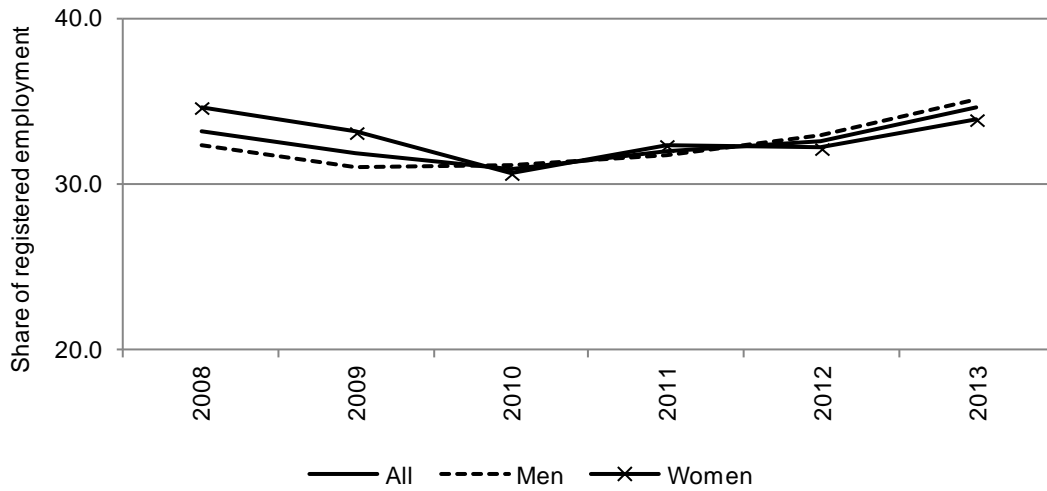


Note: Low: eight years of schooling or less. Medium: from nine to thirteen years of schooling. High: Over thirteen years of schooling.

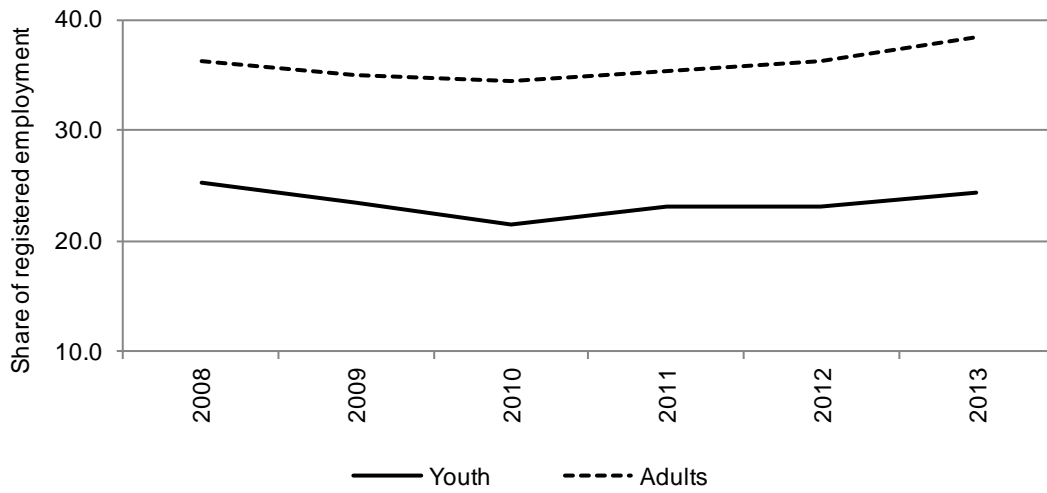
Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 8: Share of employment registered with the social security system: employed workers, 15 years old or more, 2008–13

(a) Overall and by gender



(b) By age groups

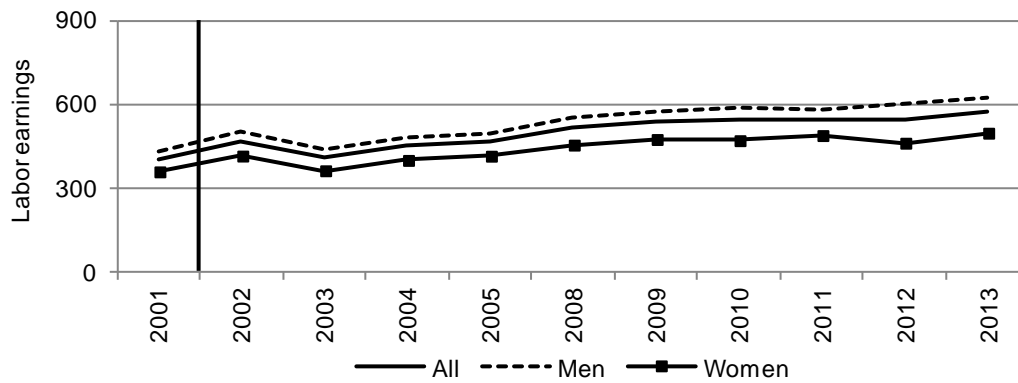


Note: Data on registration of workers with the social security system is not available before 2008.

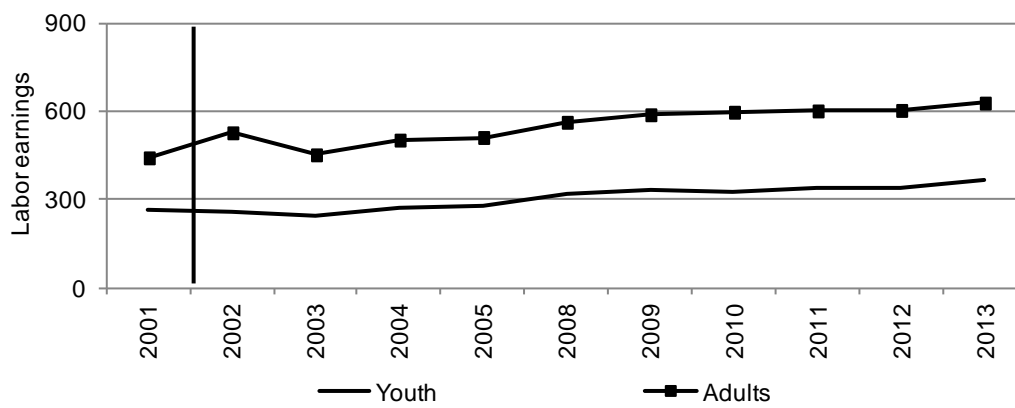
Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 9: Monthly labour earnings at PPP dollars of 2005, 2001–05 and 2008–13

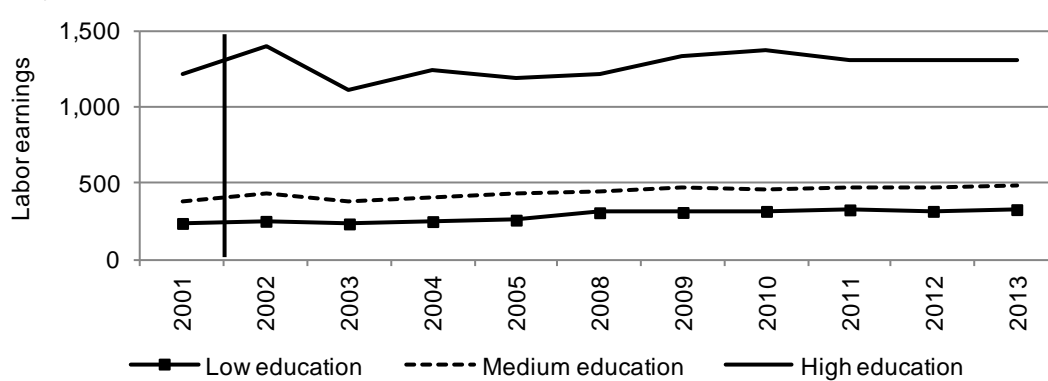
(a) Overall and by gender



(b) By age



(c) By educational level

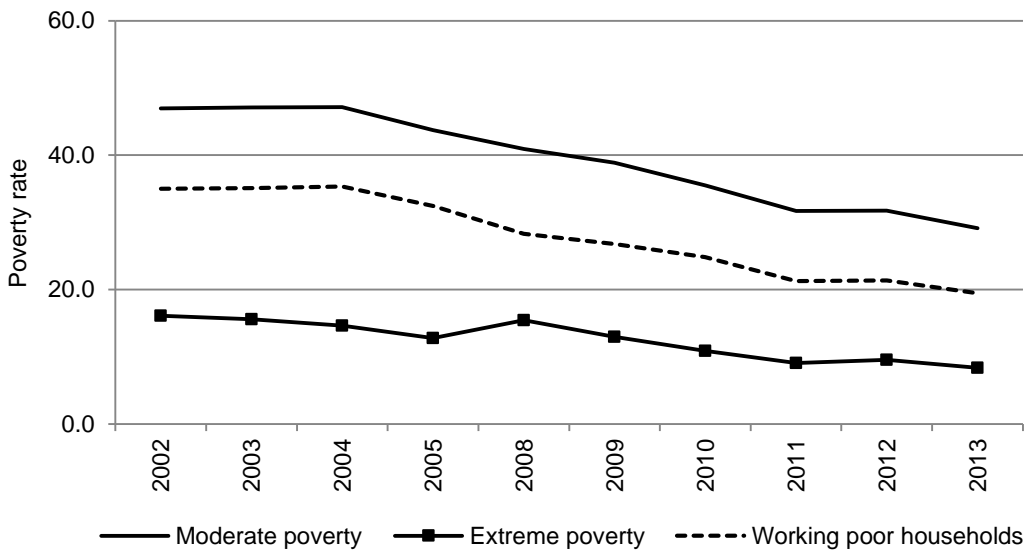


Note: Labour earnings of 2001 are not comparable to labour earnings from 2002 onwards.

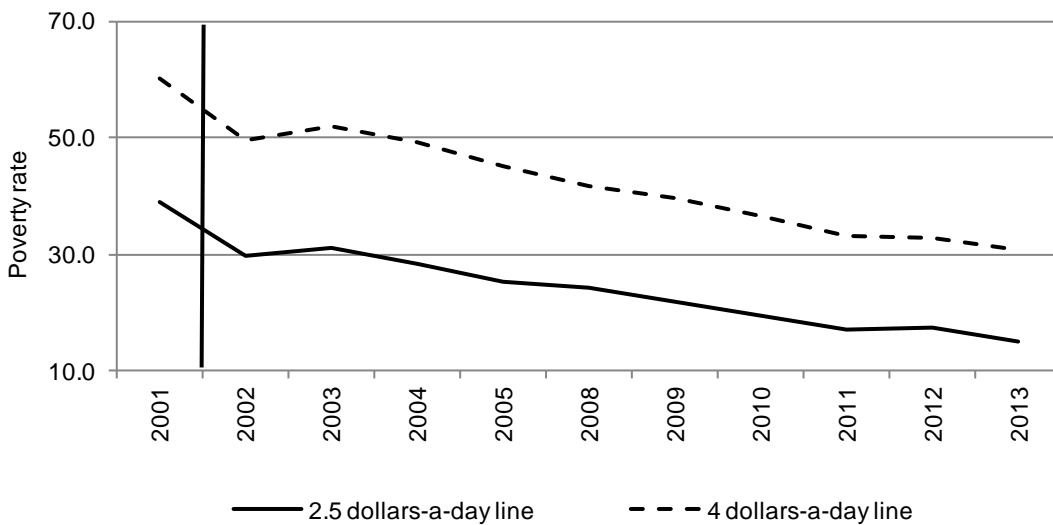
Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 10: Poverty rates and working poor households, 2001–05 and 2008–13

(a) Official lines



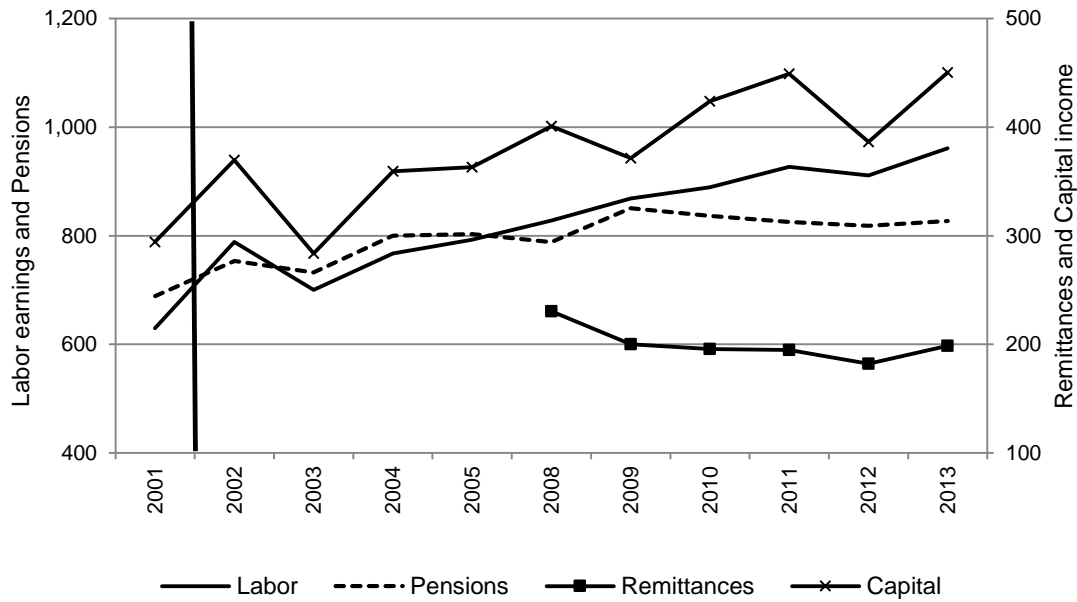
(b) International lines



Notes: Official poverty lines are not available for the year 2001. Poverty rates of 2001 based on international lines are not comparable to poverty rates from 2002 onwards.

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

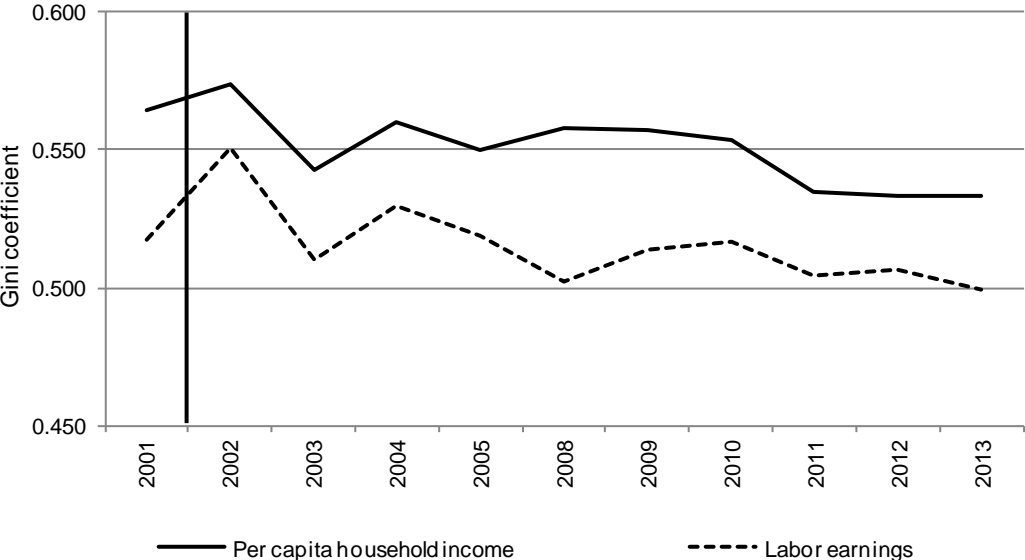
Figure 11: Sources of monthly household total income at PPP dollars of 2005, 2001–05 and 2008–13



Note: Data on remittances not available before 2008.

Source: Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 12: Gini coefficient of household per capita income and labour earnings, 2001–05 and 2008–13



Notes: Inequality indices of 2001 are not comparable to inequality indices from 2002 onwards.

Gini coefficients of household per capita income and labour earnings are calculated among persons with positive household per capita income and positive labour earnings respectively.

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).



## Tables

Table 1: Household surveys' description

	Number of households	Number of persons
2001	32,104	132,957
2002	32,067	131,924
2003	33,430	136,730
2004	37,698	152,589
2005	37,580	148,430
2008	56,568	209,502
2009	56,583	207,952
2010	57,015	205,545
2011	57,921	207,067
2012	57,356	202,313
2013	57,238	198,019

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Table 2: Macroeconomic variables, 2000–13

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
GDP <sup>1,2</sup>	263,193	267,609	274,310	285,058	300,260	314,392	335,449	358,597	371,315	377,448	392,439	418,518	436,150	454,002
GDP per capita <sup>1</sup>	6,597	6,598	6,655	6,808	7,060	7,280	7,651	8,059	8,223	8,241	8,450	8,890	9,143	9,395
GDP per person employed <sup>1</sup>	22,093	21,519	22,126	21,668	22,413	22,579	24,776	25,873	26,252	25,236	25,170	26,211	26,889	27,364
GDP growth	4.42	1.68	2.50	3.92	5.33	4.71	6.70	6.90	3.55	1.65	3.97	6.65	4.21	4.09
GDP per capita growth	2.68	0.02	0.87	2.29	3.71	3.12	5.10	5.32	2.05	0.21	2.53	5.21	2.85	2.76
Exports of goods and services <sup>1,2</sup>	19,738	20,292	19,810	21,268	23,354	24,689	26,811	28,663	29,946	29,094	29,462	33,255	35,037	36,805
Agriculture, value added (% of GDP)	8.95	8.98	9.20	9.04	8.62	8.44	8.09	7.83	7.52	7.47	7.10	6.85	6.31	6.05
Industry, value added (% of GDP)	29.42	29.36	29.76	31.37	32.38	32.79	33.80	33.69	35.49	34.50	34.96	37.58	37.58	37.20
Services, value added (% of GDP)	61.63	61.66	61.04	59.59	59.00	58.77	58.12	58.48	57.00	58.04	57.94	55.57	56.11	56.75
Agriculture, value added <sup>1,2</sup>	9,747	9,920	10,371	10,691	11,010	11,320	11,588	12,041	11,996	11,917	11,940	12,228	12,540	13,139
Industry, value added <sup>1,2</sup>	36,800	36,935	37,883	39,655	41,962	43,969	46,872	49,620	51,571	52,416	54,309	58,655	60,444	61,936
Services, etc., value added <sup>1,2</sup>	65,778	67,196	68,848	71,184	75,107	78,794	84,068	90,056	93,417	95,782	99,807	105,492	110,700	115,849
Total population <sup>2</sup>	39.90	40.56	41.22	41.87	42.53	43.18	43.84	44.50	45.15	45.80	46.44	47.08	47.70	48.32
Working age population (15-64) <sup>2</sup>	24.91	25.46	26.02	26.58	27.14	27.70	28.27	28.84	29.40	29.95	30.48	30.99	31.49	31.96

1: Purchasing power parity dollars of 2005.

2: In millions.

Source: World Development Indicators (the World Bank 2014).

Table 3: Share of employment by occupational group: all employed workers, 15 years old or more, 2001–05 and 2008–13

(a) All employed workers

	Management	Professionals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades workers	Plant & machine operators, and assemblers	Elementary	Armed forces
2001	6.39	1.74	7.38	18.32	19.31	20.52	6.32	6.08	11.57	2.37
2002	6.90	2.11	7.80	17.57	19.69	18.97	6.67	5.51	12.29	2.49
2003	6.85	1.97	7.48	17.46	20.22	19.46	6.32	5.56	12.13	2.55
2004	6.71	2.35	7.68	17.22	19.30	19.30	6.60	5.75	12.41	2.68
2005	6.86	2.48	7.61	17.11	18.87	20.79	5.70	5.89	11.87	2.83
2008	6.81	2.68	9.19	18.53	16.94	16.74	5.72	6.12	14.15	3.12
2009	6.05	2.45	8.99	17.62	18.32	18.24	6.08	5.43	13.96	2.86
2010	6.05	2.48	8.30	17.73	17.88	17.79	6.75	4.61	14.99	3.43
2011	6.02	2.61	8.53	17.57	18.18	17.00	6.53	5.23	14.54	3.78
2012	5.97	2.70	8.78	17.19	19.01	16.65	5.81	4.58	15.26	4.06
2013	6.55	2.43	8.23	17.97	19.39	16.15	5.48	4.64	14.53	4.63

(b) Youth (15 to 24 years old)

	Management	Professionals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades workers	Plant & machine operators, and assemblers	Elementary	Armed forces
2001	3.89	0.35	9.40	18.30	21.96	24.07	4.99	6.16	9.80	1.08
2002	3.42	0.28	11.48	18.18	21.66	21.44	5.28	4.73	12.46	1.07
2003	3.13	0.67	10.62	17.06	20.59	23.89	5.81	5.44	11.71	1.07
2004	3.24	0.87	11.01	17.28	19.88	22.75	5.83	5.29	12.50	1.35
2005	3.54	0.84	10.81	17.51	19.06	25.08	4.81	5.82	10.82	1.71
2008	3.19	0.93	13.00	17.77	17.41	18.13	5.55	6.90	15.11	2.01
2009	3.65	0.73	13.00	17.37	17.00	21.14	5.43	5.73	14.45	1.50
2010	3.67	0.61	11.67	17.91	17.32	20.64	5.49	4.47	15.84	2.39
2011	3.53	0.86	12.94	17.07	16.92	19.15	5.57	5.60	15.48	2.86
2012	3.38	1.05	12.47	17.30	18.09	17.70	4.88	4.76	17.20	3.17
2013	4.28	0.55	11.67	17.98	18.72	16.95	4.59	4.91	16.96	3.39

(c) Adults (25 to 64 years old)

	Management	Professionals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades workers	Plant & machine operators, and assemblers	Elementary	Armed forces
2001	7.30	2.13	7.25	18.16	19.05	18.30	6.49	6.15	12.38	2.79
2002	8.02	2.63	7.18	17.22	19.61	17.14	7.09	5.83	12.34	2.94
2003	8.02	2.33	7.00	17.25	20.60	17.28	6.42	5.64	12.50	2.96
2004	7.77	2.74	7.17	17.05	19.52	17.27	6.78	5.94	12.66	3.10
2005	7.83	2.90	7.11	16.88	19.12	18.88	5.83	5.94	12.33	3.18
2008	7.79	3.05	8.77	18.25	17.22	15.64	5.70	5.97	14.17	3.44
2009	6.77	2.85	8.51	17.47	19.04	16.32	6.16	5.41	14.21	3.26
2010	6.80	2.91	7.91	17.40	18.51	16.09	6.82	4.65	15.16	3.76
2011	6.76	3.05	7.88	17.39	18.87	15.65	6.50	5.18	14.62	4.11
2012	6.77	3.10	8.34	16.75	19.56	15.50	5.86	4.54	15.16	4.41
2013	7.26	2.88	7.89	17.65	19.88	14.95	5.49	4.63	14.28	5.08

(d) Men

	Management	Professionals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades workers	Plant & machine operators, and assemblers	Elementary	Armed forces
2001	4.72	1.85	5.47	15.60	8.36	30.58	3.86	9.43	17.61	2.53
2002	5.38	2.25	5.27	15.25	8.64	28.21	5.24	8.43	18.69	2.65
2003	5.14	2.16	5.68	14.87	9.24	28.20	4.52	8.65	18.62	2.92
2004	5.17	2.52	6.00	14.48	8.64	28.18	4.69	8.82	18.80	2.72
2005	5.36	2.64	5.76	14.01	8.29	29.95	4.07	9.05	17.88	2.99
2008	4.70	2.60	5.87	13.23	8.25	26.05	4.55	7.21	23.44	4.11
2009	4.76	2.63	6.26	13.50	8.38	27.07	4.21	8.43	21.51	3.26
2010	4.70	2.60	5.87	13.23	8.25	26.05	4.55	7.21	23.44	4.11
2011	4.59	2.50	6.10	13.27	8.65	24.76	4.50	8.23	22.91	4.48
2012	4.88	2.82	6.23	12.79	9.06	24.07	3.98	7.17	24.06	4.94
2013	5.31	2.39	5.84	13.67	9.45	23.28	3.81	7.30	23.33	5.62

(e) Women

	Management	Professionals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades workers	Plant & machine operators, and assemblers	Elementary	Armed forces
2001	8.95	1.57	10.32	22.49	36.04	5.13	10.09	0.95	2.34	2.12
2002	9.23	1.89	11.67	21.12	36.64	4.81	8.86	1.05	2.48	2.25
2003	9.43	1.69	10.17	21.34	36.70	6.35	9.01	0.93	2.38	2.00
2004	9.07	2.09	10.27	21.44	35.66	5.66	9.54	1.04	2.60	2.62
2005	9.14	2.24	10.44	21.85	35.03	6.80	8.18	1.06	2.68	2.58
2008	9.14	2.70	13.49	24.45	31.19	4.96	7.78	0.92	2.86	2.51
2009	7.98	2.18	13.05	23.76	33.16	5.06	8.87	0.95	2.71	2.26
2010	8.00	2.30	11.83	24.25	31.86	5.79	9.94	0.84	2.74	2.45
2011	8.07	2.76	12.01	23.72	31.81	5.91	9.43	0.94	2.59	2.76
2012	7.50	2.54	12.36	23.36	32.97	6.25	8.36	0.94	2.91	2.82
2013	8.25	2.49	11.50	23.88	33.02	6.36	7.78	0.99	2.46	3.27

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Table 4: Share of employment by occupational position: all employed workers, 15 years old or more, 2001–05 and 2008–13

(a) All employed workers

	Employer	Wage/salaried employee	Self-employed	Unpaid worker
2001	4.41	50.00	40.89	4.70
2002	4.61	50.77	40.15	4.47
2003	4.58	49.58	40.54	5.30
2004	5.16	49.35	40.94	4.55
2005	5.30	52.00	38.48	4.22
2008	4.67	49.06	42.55	3.72
2009	4.98	48.50	42.60	3.91
2010	5.01	47.36	43.07	4.56
2011	5.04	47.07	43.74	4.16
2012	4.95	47.28	43.33	4.44
2013	4.58	48.25	42.79	4.37

(b) Youth (15 to 24 years old)

	Employer	Wage/salaried employee	Self-employed	Unpaid worker
2001	0.52	61.24	26.00	12.24
2002	0.74	64.72	24.36	10.17
2003	0.72	60.19	27.07	12.02
2004	0.86	61.35	26.59	11.20
2005	0.93	63.71	25.17	10.18
2008	0.57	59.11	31.59	8.72
2009	0.81	58.69	30.83	9.66
2010	0.83	55.80	32.28	11.09
2011	0.93	57.19	31.84	10.05
2012	0.73	58.05	30.50	10.73
2013	0.78	56.42	31.79	11.01

(c) Adults (25 to 64 years old)

	Employer	Wage/salaried employee	Self-employed	Unpaid worker
2001	5.08	49.33	42.70	2.89
2002	5.31	48.92	42.77	3.00
2003	5.37	48.85	42.16	3.62
2004	5.89	48.22	42.96	2.94
2005	6.04	50.94	40.19	2.83
2008	5.29	48.74	43.33	2.64
2009	5.59	47.91	43.77	2.72
2010	5.61	47.35	44.00	3.04
2011	5.63	46.71	44.81	2.84
2012	5.60	46.81	44.60	2.99
2013	5.11	48.50	43.51	2.88

(d) Men

	Employer	Wage/salaried employee	Self-employed	Unpaid worker
2001	5.76	48.57	42.05	3.61
2002	5.67	48.70	42.95	2.68
2003	5.77	48.69	42.20	3.34
2004	6.53	47.44	43.38	2.65
2005	6.72	51.28	39.67	2.33
2008	5.97	47.51	44.25	2.27
2009	6.66	47.21	43.51	2.62
2010	6.60	47.00	43.59	2.81
2011	6.48	47.03	43.93	2.55
2012	6.26	47.62	43.59	2.53
2013	5.76	48.42	43.20	2.62

(e) Women

	Employer	Wage/salaried employee	Self-employed	Unpaid worker
2001	2.30	52.22	39.08	6.39
2002	2.96	53.98	35.78	7.27
2003	2.77	50.94	37.99	8.30
2004	3.00	52.35	37.12	7.53
2005	3.08	53.13	36.62	7.17
2008	2.64	51.46	39.92	5.98
2009	2.46	50.44	41.24	5.87
2010	2.69	47.88	42.31	7.12
2011	2.95	47.11	43.46	6.48
2012	3.09	46.79	42.97	7.16
2013	2.95	48.01	42.24	6.80

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Table 5: Share of employment by economic sector: all employed workers, 15 years old or more, 2001–05 and 2008–13

(a) All

	Primary activities	Low-tech Industry	High-tech Industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2001	22.00	7.80	5.36	4.18	25.93	7.25	5.33	2.75	13.31	6.10
2002	21.19	7.68	5.33	5.29	25.50	7.11	5.29	2.75	13.75	6.10
2003	21.41	7.48	5.49	4.63	25.41	7.51	5.65	2.58	14.48	5.36
2004	20.51	8.06	5.70	4.75	24.84	7.97	5.80	2.82	14.31	5.23
2005	22.06	7.34	5.90	5.02	24.64	7.30	5.99	2.90	13.61	5.24
2008	18.28	7.26	6.20	5.09	26.40	8.93	7.89	2.85	13.71	3.40
2009	19.87	7.10	5.77	5.23	25.32	8.75	7.72	2.99	13.43	3.81
2010	19.73	7.05	5.34	5.90	25.59	9.26	7.57	2.94	12.86	3.75
2011	18.86	7.10	5.63	5.97	26.13	8.78	7.80	3.02	13.30	3.41
2012	18.25	6.78	5.53	5.88	26.55	9.22	8.48	2.80	12.85	3.66
2013	17.70	6.34	5.36	5.88	27.31	8.60	8.67	2.88	13.87	3.38

(b) Youth (15 to 24 years old)

	Primary activities	Low-tech Industry	High-tech Industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2001	25.28	6.99	5.11	4.10	26.87	5.29	4.16	2.09	9.89	10.23
2002	23.27	7.18	4.82	4.78	26.93	6.95	4.75	1.26	9.78	10.27
2003	25.34	6.68	5.52	4.57	26.45	7.01	4.92	2.12	9.47	7.92
2004	23.49	8.51	5.53	4.53	25.76	8.32	4.25	2.15	10.75	6.72
2005	26.38	7.18	5.88	4.18	26.11	6.56	5.40	2.02	9.55	6.74
2008	20.22	8.35	6.99	4.79	28.10	9.56	6.04	2.07	10.03	3.85
2009	23.46	7.16	5.49	4.99	27.15	9.26	6.86	1.82	9.73	4.09
2010	22.93	6.65	5.08	5.93	27.65	9.68	5.48	2.04	10.83	3.73
2011	20.94	7.21	5.91	6.01	27.77	9.05	6.78	2.45	10.62	3.25
2012	19.58	6.37	5.91	6.49	29.97	9.56	7.16	1.88	9.65	3.41
2013	18.71	6.36	5.66	6.39	30.48	8.90	7.28	2.04	11.53	2.64



(c) Adults (25 to 64 years old)

	Primary activities	Low-tech Industry	High-tech Industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2001	19.72	8.12	5.52	4.30	25.68	8.03	5.72	3.07	14.59	5.25
2002	19.62	7.69	5.57	5.34	25.24	7.35	5.56	3.28	15.11	5.23
2003	19.35	7.70	5.60	4.77	25.01	7.82	5.88	2.82	16.19	4.86
2004	18.63	8.00	5.85	4.89	24.57	8.12	6.30	3.07	15.56	5.02
2005	20.15	7.40	6.02	5.31	24.09	7.65	6.24	3.23	14.92	5.01
2008	17.13	7.06	6.10	5.19	25.77	9.01	8.44	3.14	14.79	3.37
2009	17.84	7.12	5.95	5.40	24.92	8.89	8.11	3.38	14.60	3.80
2010	18.02	7.09	5.46	5.99	24.96	9.45	8.18	3.29	13.73	3.82
2011	17.58	7.01	5.65	6.10	25.49	8.94	8.18	3.30	14.26	3.49
2012	17.05	6.82	5.56	5.88	25.46	9.42	8.99	3.14	13.89	3.79
2013	16.51	6.34	5.43	5.87	26.39	8.75	9.22	3.22	14.65	3.63

(d) Men

	Primary activities	Low-tech Industry	High-tech Industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2001	31.28	5.39	6.59	6.60	23.33	10.38	5.45	3.02	7.63	0.34
2002	30.71	5.07	6.48	8.34	23.24	10.20	5.19	2.53	7.82	0.42
2003	30.36	4.71	6.78	7.43	22.88	11.10	5.60	2.79	8.01	0.31
2004	29.46	5.13	6.88	7.53	22.47	11.41	5.77	2.77	8.23	0.36
2005	30.90	4.87	6.99	8.00	21.44	10.18	6.00	3.17	8.10	0.36
2008	26.20	5.22	7.62	8.11	22.95	11.81	7.23	2.89	7.76	0.20
2009	28.80	4.75	6.97	8.48	21.50	11.71	6.70	2.96	7.81	0.32
2010	28.08	4.67	6.55	9.62	21.25	12.63	6.43	3.05	7.40	0.33
2011	26.83	5.00	6.89	9.69	22.01	12.22	6.88	2.86	7.27	0.35
2012	25.72	4.54	6.95	9.60	22.03	12.78	7.74	2.97	7.50	0.17
2013	25.12	4.56	6.81	9.63	22.90	11.97	7.82	3.02	7.88	0.28

(e) Women

	Primary activities	Low-tech Industry	High-tech Industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2001	7.56	11.56	3.43	0.40	29.98	2.39	5.14	2.32	22.16	15.06
2002	6.34	11.76	3.54	0.54	29.02	2.27	5.45	3.10	23.01	14.98
2003	7.67	11.74	3.50	0.33	29.29	2.00	5.72	2.25	24.41	13.09
2004	6.51	12.65	3.85	0.41	28.56	2.59	5.85	2.91	23.83	12.84
2005	8.23	11.21	4.19	0.35	29.66	2.81	5.97	2.48	22.24	12.86
2008	5.99	10.43	3.99	0.39	31.74	4.45	8.91	2.79	22.95	8.37
2009	6.43	10.64	3.95	0.33	31.08	4.30	9.26	3.03	21.90	9.07
2010	7.51	10.54	3.57	0.45	31.94	4.33	9.24	2.80	20.85	8.76
2011	7.37	10.14	3.81	0.62	32.07	3.84	9.12	3.25	21.97	7.82
2012	7.64	9.94	3.51	0.60	32.95	4.19	9.54	2.57	20.45	8.61
2013	7.41	8.80	3.34	0.70	33.43	3.93	9.86	2.69	22.17	7.69

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Table 6: Monthly labour earnings at PPP dollars of 2005, 2001–05 and 2008–13

(a) All employed workers, by gender, age group, occupational position, and educational level

	All	Gender		Age		Occupational position			Educational level		
		Men	Women	Youth	Adults	Employer	Wage/salaried employee	Self-employed	Low	Medium	High
2001	402.0	430.6	359.7	262.3	441.9	950.9	481.1	241.8	240.4	382.7	1214.6
2002	469.3	501.7	416.3	260.0	527.0	1202.1	535.0	301.1	254.2	434.2	1401.8
2003	408.1	435.6	363.6	243.8	452.1	925.2	484.5	256.2	237.1	383.4	1114.1
2004	452.6	484.0	400.8	269.0	502.3	949.2	545.6	278.8	252.5	410.9	1249.5
2005	464.9	494.6	415.9	279.9	511.1	1035.0	537.2	289.5	262.1	431.3	1197.9
2008	516.9	554.9	455.6	318.1	562.8	1103.7	609.2	345.4	310.8	444.9	1221.5
2009	537.1	576.5	475.7	329.6	588.4	1172.9	639.6	346.5	312.5	469.2	1334.4
2010	543.5	590.5	471.5	323.7	597.0	1073.9	670.7	339.0	319.7	465.9	1369.8
2011	546.0	583.7	489.8	341.3	601.4	1182.9	653.7	355.7	329.5	468.0	1316.9
2012	545.6	601.5	462.5	339.4	603.1	1066.1	675.0	342.4	319.8	476.9	1306.0
2013	573.5	625.4	498.3	365.3	628.1	1087.0	704.9	365.9	331.2	484.3	1310.3

(b) By economic sector

	Primary activities	Low-tech Industry	High-tech Industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2001	237.3	352.8	508.3	375.1	352.5	455.7	728.2	935.0	567.7	225.9
2002	267.5	418.5	577.4	461.7	398.7	479.1	1067.4	877.0	640.2	256.0
2003	264.6	357.1	499.0	351.2	351.3	427.1	705.9	795.8	566.4	244.5
2004	253.6	388.0	623.5	393.4	393.2	467.9	916.4	848.0	593.9	265.7
2005	284.4	371.7	580.8	413.1	413.0	472.7	813.2	1023.4	643.3	260.3
2008	354.2	433.5	604.1	420.0	426.7	485.5	831.6	1144.4	682.1	291.1
2009	336.0	433.6	666.5	474.6	454.3	518.3	848.5	1190.3	726.4	299.8
2010	367.5	459.0	635.2	474.9	447.9	519.6	885.4	1193.8	736.7	314.2
2011	382.0	469.9	705.9	492.6	438.5	544.7	831.7	1169.0	707.3	300.4
2012	373.6	462.8	665.5	496.1	445.9	528.6	790.1	1247.1	733.3	303.3
2013	398.6	496.2	668.6	510.9	445.7	572.1	864.2	1310.5	750.8	342.0

(c) By occupational group

	Management	Professionals	Technicians & associate professional	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades	Plant & machine operators, and assemblers	Elementary	Armed forces
2001	925.8	2122.4	486.1	360.7	276.7	226.2	251.5	362.0	346.3	1536.0
2002	1147.5	1855.8	564.5	433.6	306.7	242.9	287.5	379.8	341.8	1592.0
2003	892.3	1512.6	486.1	379.5	283.0	240.0	261.8	341.4	322.4	1349.2
2004	1079.5	1733.2	516.2	422.3	300.3	233.2	293.6	369.9	350.4	1435.9
2005	1026.9	1564.4	529.0	461.8	311.3	263.1	299.1	397.9	372.1	1355.6
2008	1097.6	1491.9	581.7	463.9	359.3	311.6	380.2	421.4	393.1	1372.2
2009	1144.0	1730.2	690.1	491.3	371.9	296.6	337.0	456.8	425.5	1587.3
2010	1167.7	1736.1	618.6	487.8	370.0	322.3	340.6	463.3	432.1	1591.7
2011	1154.8	1918.7	618.6	479.9	380.9	324.8	346.4	477.6	438.7	1418.1
2012	1200.2	1648.9	641.5	449.9	382.0	319.4	331.6	470.1	457.2	1336.6
2013	1173.6	2122.3	655.2	464.2	403.3	323.8	342.7	485.4	471.3	1317.8

Note: Labour earnings of 2001 are not comparable to labour earnings from 2002 onwards.

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Table 7: Hourly wage in main occupation at PPP dollars of 2005, 2001–05 and 2008–13

(a) All employed workers, by gender, by age group, by occupational position, and educational level

	Gender		Age		Occupational position			Educational level			
	All	Men	Women	Youth	Adults	Employer	Wage/salaried employee	Self-employed	Low	Medium	High
2001	2.35	2.33	2.39	1.63	2.53	5.20	2.69	1.63	1.38	2.21	7.32
2002	2.86	2.76	3.03	1.72	3.15	6.32	3.21	2.01	1.51	2.59	8.82
2003	2.42	2.37	2.50	1.54	2.61	5.08	2.68	1.79	1.38	2.27	6.72
2004	2.74	2.75	2.70	1.75	2.94	5.48	3.11	1.91	1.47	2.45	7.83
2005	2.76	2.74	2.79	1.93	2.92	6.14	2.98	1.99	1.53	2.51	7.29
2008	2.92	2.93	2.90	1.83	3.13	5.88	3.20	2.26	1.73	2.45	7.07
2009	2.97	2.98	2.95	1.98	3.19	5.91	3.38	2.15	1.70	2.57	7.48
2010	3.02	3.07	2.94	1.93	3.26	5.39	3.52	2.17	1.75	2.54	7.77
2011	3.02	3.01	3.03	2.03	3.26	5.93	3.43	2.23	1.78	2.53	7.50
2012	3.06	3.13	2.97	2.04	3.32	5.60	3.56	2.22	1.81	2.62	7.42
2013	3.27	3.28	3.26	2.20	3.49	5.65	3.74	2.47	1.90	2.64	7.72

(b) By economic sector

	Primary activities	Low-tech Industry	High-tech Industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2001	1.3	2.1	2.6	2.0	2.0	2.3	4.3	4.8	4.0	1.3
2002	1.5	2.5	3.2	2.2	2.3	2.7	5.7	4.8	5.2	1.5
2003	1.4	2.1	2.9	1.8	2.0	2.4	4.4	4.1	3.9	1.5
2004	1.5	2.2	3.9	2.2	2.2	2.4	5.6	4.5	4.3	1.6
2005	1.6	2.1	3.1	2.2	2.4	2.5	5.5	5.3	4.4	1.6
2008	2.0	2.3	3.2	2.2	2.4	2.3	4.7	6.1	4.5	1.5
2009	1.9	2.3	3.4	2.5	2.5	2.6	4.6	6.1	4.6	1.7
2010	2.0	2.5	3.3	2.4	2.5	2.5	5.0	6.1	4.7	1.8
2011	2.1	2.5	3.6	2.5	2.4	2.7	4.8	6.0	4.5	1.8
2012	2.1	2.6	3.4	2.6	2.5	2.6	4.5	6.5	4.6	1.8
2013	2.2	2.6	3.5	2.6	2.6	2.9	5.0	6.8	4.8	2.1

(c) By occupational group

	Management	Professionals	Technicians & associate professional	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades	Plant & machine operators, and assemblers	Elementary	Armed forces
2001	6.8	11.6	2.8	2.1	1.6	1.2	1.6	2.0	1.8	8.0
2002	8.3	9.9	4.1	2.6	1.8	1.3	1.9	2.0	2.0	8.4
2003	6.2	8.3	2.9	2.2	1.7	1.3	1.7	2.1	1.8	7.5
2004	7.8	9.6	2.9	2.6	1.8	1.4	1.8	2.0	1.8	8.1
2005	7.3	9.0	3.0	2.8	1.8	1.5	1.8	2.2	1.9	7.9
2008	7.3	7.7	3.2	2.6	2.0	1.8	2.1	2.2	1.9	7.3
2009	7.5	8.8	3.7	2.7	2.1	1.7	1.9	2.4	2.1	8.4
2010	7.7	8.8	3.4	2.8	2.1	1.8	2.0	2.4	2.1	8.4
2011	7.8	9.9	3.4	2.7	2.1	1.8	1.9	2.5	2.1	7.5
2012	7.9	8.5	3.5	2.7	2.1	1.9	2.0	2.4	2.2	7.1
2013	8.2	11.3	3.5	2.8	2.3	1.9	2.0	2.5	2.3	7.0

Note: Hourly wages of 2001 are not comparable to hourly wages from 2002 onwards.

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Table 8: Share of persons in the labour force by educational levels: population 15 years old or more, 2001–05 and 2008–13

	Low	Medium	High
2001	54.17	33.29	12.54
2002	52.95	34.18	12.87
2003	52.23	34.27	13.50
2004	50.95	34.90	14.16
2005	49.09	35.90	15.01
2008	45.73	37.65	16.61
2009	47.19	37.23	15.58
2010	46.70	37.73	15.57
2011	44.12	39.56	16.33
2012	44.30	39.66	16.04
2013	41.55	40.66	17.79

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Table 9: Unemployment rate by educational levels: population 15 years old or more, 2001–05 and 2008–13

	Low	Medium	High
2001	10.53	19.31	11.93
2002	12.12	19.09	11.34
2003	10.27	18.99	12.83
2004	9.08	17.22	10.44
2005	8.00	15.64	10.50
2008	8.24	14.71	9.46
2009	9.45	15.32	9.42
2010	8.38	14.02	10.67
2011	7.50	13.03	8.91
2012	7.59	12.53	9.02
2013	6.71	11.45	8.78

Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).