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

Dominican Republic country study

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Abstract: During the 2000s, the Dominican Republic experienced above-average economic growth along with mixed results in labour market indicators. GDP per capita stagnated through 2004 and, for the most part, grew rapidly from 2005 through 2012. Comparing 2000 with 2012, many unfavourable developments were seen. Among them: an increase in unemployment; worsening in the employment composition by occupation and position; a substantial fall in labour earnings; and no progress in reducing poverty. The international crisis slowed economic growth but did not reverse it and had a negative effect on some labour indicators, which failed to return to pre-crisis levels by 2012.

Keywords: Dominican Republic, Latin America, inclusive growth, labour market, poverty
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Figures and tables: Provided at the end of the paper.

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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 the Dominican Republic 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 the Dominican Republic 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 of the statistics in this paper on labour market conditions and income distribution are obtained using microdata from the October wave of the Encuesta Nacional de Fuerza de Trabajo (ENFT) for the years 2000–12. 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 paper were involved in this project at CEDLAS (Center for Distributive, Labor, and Social Studies), Universidad Nacional de la Plata in Argentina. The survey's sample size has increased over time; it went from 5,696 households and 22,465 persons in 2000 to 8,163 households and 29,130 persons in 2012 (Table 1). Despite the change in the survey's sample size, the ENFT has always been representative of the total population of the country.

For this study, we processed the microdata from the Dominican Republic to construct time series of comparable data for a wide range of labour market and income distribution indicators. In the case of the Dominican Republic, there is one caveat: in the years 2005 and 2008, the country implemented a change in its household surveys. The pre-2005 and post-2005 surveys are fully comparable except in relation to non-labour incomes. The post-2005 survey includes questions geared to better capturing non-labour incomes. While the change does not affect comparability in terms of labour earnings, it does impede seamless comparison of per capita household income (poverty rates and Gini index). The pre-2008 and post-2008 surveys differ only in the classification of occupations. As a consequence, comparability problems in the analysis of this labour market indicator may arise between the 2000–07 and 2008–12 periods.

The resulting indicators are compiled into a large number of tables and figures, provided at the end of the 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, 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 week in the Dominican Republican survey), 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. Our calculation of the unemployment rate for the Dominican Republic differs from official statistics in two respects. First, in official statistics people are classified as unemployed if they were without work, available for work, and seeking work in the last four weeks, while in our definition the reference period is the last week. Second, in official statistics people are also classified as unemployed if they did not seek work in the last four weeks, but would have accepted a job if offered.

Occupational groups are defined according to the following classification:[1] 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; and elementary. Household surveys of the Dominican Republic follow a similar classification. The change in the household surveys implemented in 2008 led to the re-categorization of some occupational groups but that does not generate any comparability problems in our analysis. 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 improving change 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. The survey only asked these questions of wage/salaried employees. 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.

[1] This is the International Standard Classification of Occupations of 2008 (ISCO-08) at one digit level.

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. 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-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. 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

During the 2000s, the Dominican Republic experienced above average economic growth. Within the period, GDP per capita stagnated through 2004 and, for the most part, grew rapidly from 2005 through 2012. However, economic growth slowed during the international crisis of 2008 but remained positive in every year (Figures 1 and 2).

From 2000 to 2012, the Dominican economy grew at an above average rate by Latin American standards. GDP per capita increased by 53.3 per cent, while the average for the region's eighteen countries was 36.2 per cent during the same period. GDP (measured at 2005 PPP dollars) grew by 81.8 per cent and GDP per employed person rose by 41.1 per cent. GDP per capita grew at an annual rate of 3.6 per cent over the period with a minimum of -1.7 per cent in 2003 and a maximum of 9.1 per cent in 2006 (Table 2). At the beginning of the 2000s, economic growth was erratic. From 2000 to 2004, GDP per capita increased by only 2.4 per cent due to years of economic growth (2000 and 2002) followed by years of decline (2003 and 2004). The export-oriented growth model that had been in place in the Dominican Republic since the 1990s faced a series of external shocks during this period, which included a rise in oil prices and the slowdown in the US and Europe in 2001 (Agosin 2009; Godínez and Máttar 2009).[2] However, the country faced a bigger shock in 2003 when a banking crisis arose mainly from governance problems that went undetected for many years (IMF 2003). The banking crisis contributed to the flight of capital, an increase in the inflation rate, a sharp rise in the public debt, and the devaluation of the currency (IMF 2003; Agosin 2009). GDP per capita fell by 1.8 per cent in 2003. The government that took office in 2004 formulated a programme to address the weaknesses in macroeconomic policies. The rebound in confidence and activity led to a virtuous cycle of declining inflation and interest rates, and exchange rate stability (IMF 2005). From 2005 to 2008 the Dominican economy exhibited rapid economic growth, with an annual GDP per capita growth rate of 6.9 per cent and GDP growing at 8.4 per cent a year. The growth process was based on non-tradable sectors during this period, mainly communications, commerce, financial intermediation, construction, and transport. In particular, the growth of the

[2] The most dynamic sectors since the 1990s had been tourism and export free zones (*maquilas*) which benefited from certain incentive policies such as preferential access to US markets, tax exemptions, and lower labour costs.

communications sector was remarkable due to important foreign and domestic investments in telecommunications (Agosin 2009; ILO 2013; ILO 2014). This pattern of growth, based on non-tradable sectors, was characterized by a high capital-labour ratio, which differentiates the Dominican Republic from other Latin American countries over the period studied (Abdullaev and Estevão 2013). In 2009, the economy suffered a slowdown as a consequence of the international crisis, with GDP per capita growth falling from 3.8 per cent in 2008 to only 2.0 per cent in 2009. The deceleration was the result of the global credit crunch, a weak external demand, and a procyclical fiscal policy, such as a reduction in social spending (IMF 2009; Lavigne and Vargas 2013). The government increased the stock of public debt to address the increasing balance of payment needs and conducted countercyclical policies (IMF 2011). The pre-crisis growth rate was surpassed in 2010 (6.3 per cent), though there were subsequent slowdowns in 2011 (3.1 per cent) and 2012 (2.6 per cent).

The share of the service sector in total output increased during the period, while the shares of the industrial and agricultural sectors decreased. The share of the service sector—the largest sector in the Dominican Republic economy—increased steadily, from 56.9 per cent of the GDP in 2000 to 62.2 per cent in 2012 (Table 2). The share of the industrial sector—the second largest—diminished from 35.9 per cent in 2000 to 31.7 per cent in 2012; the bulk of that reduction took place from 2000 to 2005, when the economy of the Dominican Republic switched from an export-oriented model to one based on non-tradable sectors. The share of the agricultural sector—the smallest in the country—diminished from 7.3 per cent in 2000 to 6.1 per cent in 2012. The international economic crisis of 2008 impacted mainly on the agricultural sector, which lost 3.4 per cent of its value added in 2008. The industry sector suffered a loss of 2.2 per cent in its value added in 2009, while the service sector exhibited a slowdown: its value added grew by 8.1 per cent in 2008, and by 4.1 per cent in 2009. Both the agricultural and the industry sectors recovered immediately their pre-crisis value added levels, and the service sector returned to its previous growth pace in 2010.

The unemployment rate fell from 2000 to 2008, increased from 2008 to 2012, and ended up slightly higher in 2012 than it had been in 2000. This V-shaped pattern was also observed for youth and adults, and for men and women. The unemployment rate was impacted adversely by the international crisis: it increased between 2008 and 2009, dropped in 2010, though not to the pre-crisis level, and continued to rise through 2012 (Figure 3).

The unemployment rate (measured as the ratio of unemployment to labour force) increased from 4.7 per cent in 2000 (146,457 unemployed people) to 4.9 per cent in 2012 (204,390 unemployed people). The evolution of unemployment followed a V-shaped pattern: it fell from 4.7 per cent in 2000 to 2.1 per cent in 2008, the lowest value of the series, and increased to 4.9 per cent in 2012. The international crisis had an impact on unemployment that rose from 2.1 to 3.8 per cent between 2008 and 2009 (66,862 new unemployed people). The increase in the rate and number of unemployed people occurred mainly due to a reduction in the number of employed persons. From 2008 to 2009, the number of people in the labour force increased just by 17,090 persons, while the number of employed persons fell by 49,772. While there was a respite from rising unemployment in 2010, the unemployment rate grew again in 2011 and 2012, when GDP slowed down, and closed the period at 4.9 per cent, a level that is still above its pre-crisis value.

While the unemployment rate increased for youth, adults, and men between 2000 and 2012, it decreased for women between those years. All groups were affected adversely by the international

crisis, and none had returned to their pre-crisis unemployment rate levels by 2012. Between 2000 and 2012, the youth unemployment rate increased from 9.2 per cent to 11.1 per cent. Within the period, the unemployment rate fell, albeit erratically, from 9.2 per cent in 2000 to 4.7 per cent in 2008. It increased substantially thereafter, reaching 11.1 per cent in 2012. For adults, the unemployment rate rose from 3.5 to 3.8 per cent between 2000 and 2012. The evolution followed a V-shaped pattern with a low point of 1.5 per cent in 2008. The unemployment rate among men mirrored the aggregate trend, increasing from 3.3 to 3.9 per cent from 2000 to 2012, with a low point of 1.4 per cent in 2008. For women, though, the unemployment rate decreased from 7.3 per cent in 2000 to 6.6 per cent in 2012, with a dip in 2008 when it dropped to 3.2 per cent. All population groups—youth, adults, men, and women—were affected by the rise in unemployment that ensued during the international crisis, and they all experienced a slight recovery in 2010 followed by further increases in unemployment in 2011 and 2012.

In terms of the composition of employment by occupational group, there was a slight worsening over the period, with an increase in the shares of low-earning and high-earning occupations and a consequent decrease in the middle-earnings occupations' share. The evidence indicates a slight deterioration over time for youth, adults, men, and women. For the employed population as a whole, the share of low-earning occupations continued to increase during the international crisis and the share of high-earning occupations fell and, as of 2012, the pre-crisis level had not been reached (Figure 4).

The share of the following occupations shrank between 2000 and 2012: plant and machine operators (drop of 3.7 percentage points); agricultural occupations (drop of 2.4 percentage points); and crafts and trades occupations (drop of 2.3 percentage points). The share of the following occupations grew: elementary occupations (increase of 4.9 percentage points); and services and sales jobs (increase of 1.8 percentage points).[3] The share of the other occupational groups exhibited smaller changes. These changes in the occupational composition of employment can be interpreted as a slight worsening since the share of low-earning occupations (elementary, agricultural, forestry and fishery occupations, and services and sales jobs) increased by 4.2 percentage points and the share of high-earning occupations (management, professional jobs, and technicians and associated professionals) also increased but by a smaller magnitude (rise of 1.4 percentage points). Consequently, the share of mid-earning occupations declined over the period (clerical, crafts and trades occupations, and plant and machine operators) (Tables 3 and 6).

The evolution of employment composition by occupational group followed the aggregate pattern for all population groups who exhibited a slight worsening. The shares of low-earning and high-earning occupations increased for youth by 10.0 and 1.5 percentage points respectively, and for adults, by 2.5 and 1.1 percentage points. These changes can be characterized as a slight worsening in the employment structure by occupational group for both young and adult workers due to a larger

[3] The change in the household surveys implemented in 2008 led to a re-categorization of agricultural, forestry and fishery occupations and of elementary occupations. From the changes experienced by these two occupations over the period (increase in the share of elementary occupations and fall in the share of agricultural, forestry and fishery occupations), 2.0 percentage points took place between 2007 and 2008 and are related to the change in the categorization. Since both of these categories fall into the low-earning occupations group, this re-categorization does not affect our overall conclusions about the evolution of the occupational composition of the employed population.

increase in the share of low-earning occupations compared to high-earning occupations. While the share of low-earning occupations rose for both men and women, the share of high-earning occupations increased only for women, but not for men. The share of women working in low-earning occupations increased by 7.0 percentage points, while the share working in high-earning occupations increased by 3.6 percentage points. Among men, the share of workers in low-earning occupations increased by 2.5 percentage points, while the share in high-earning occupations remained essentially unchanged. These changes can be interpreted as a slight deterioration in the employment structure by occupational group for both men and women.

During the international crisis, the composition of employment deteriorated in the aggregate and for young, adult workers, and men. The share of low-earning occupations continued to increase, while the share of high-earning occupations began a downward trend and by 2012 was still below the pre-crisis level. For women, the previous trend of slight worsening continued during the international crisis.

The employment structure by occupational position deteriorated; the share of wage/salaried employees fell and the share of self-employed workers rose. While this trend holds true for all the population groups studied, it was particularly dramatic among young workers. The prior negative trend in this indicator continued during the international crisis. By 2012, though, the share of wage/salaried employees had surpassed its pre-crisis level (Figure 5).

From 2000 to 2012, the share of wage/salaried employees—the largest occupational category—decreased from 56.9 to 53.2 per cent, while the share of the self-employed increased from 40.0 to 41.9 per cent. The share of employers and unpaid workers exhibited small increases, from 2.6 to 3.1 per cent and from 1.5 to 1.8 per cent respectively. The evolution of the share of wage/salaried employees was erratic; it hovered around 55 per cent from 2000 to 2004—when the economy changed its productive structure radically—and then began a downward trend, with some ups and down over the period. The worsening in the structure of employment by occupational position is striking considering that the unemployment rate was low and up to 2007, exhibited a declining trend. The change in the productive structure of the economy following the episode of the banking crisis in 2003 provides an explanation. The sectors that gained share in the economy (mainly telecommunications, commerce, construction, and financial intermediation) were less labour-intensive compared to the manufacturing sector that was the driving force of the economy before the banking crisis. Consequently, economic necessity may have compelled displaced workers from the industry sectors to look for free-entry self-employment activities. The effect of the international crisis is difficult to discern since the negative trend for this indicator set in 2007, i.e. before the crisis, and continued through 2010, i.e. after the crisis had subsided (Table 4).

While the share of paid employees in total employment decreased for all population groups, the drop was greater among youth and men. From 2000 to 2012, the share of paid employees decreased by 12.3 percentage points for youth and by 0.9 percentage points for adults. For youth, the decrease in the share of paid employees was offset mainly by an increase in the share of the self-employed (10.5 percentage points). For adults, a similar increase took place in the shares of employers (0.4 percentage points) and self-employed workers (0.3 percentage points). The occupational structure of employment changed differently by gender as well. The decrease in the share of paid employees was larger for men (fall of 4.9 percentage points) than for women (fall of 3.5 percentage points). Similarly, the increase in the share of the self-employed was larger for men (rise of 4.3 percentage

points) than for women (rise of 2.3 percentage points). The crisis had a greater impact on the occupational position of adults and men than on youth and women: between 2008 and 2009, the share of wage/salaried workers increased for youth and women, while it diminished for adults and men. However, for both adults and men the decline had started in 2007.

The employment composition by economic sector improved over the course of the period studied, overall and for all population groups. During the international crisis, the distribution of employment squeezed, i.e. the share of mid-earning sectors increased and the shares of low- and high-earning sectors fell, and this trend continued up to the end of the period (Figure 6).

The period from 2000 to 2012 witnessed major changes in the composition of employment by sector in the Dominican Republic. The share of workers in low-earning sectors (domestic workers, primary activities, and low-tech industries) diminished by 5.5 percentage points, from 31.2 per cent in 2000 to 25.7 per cent in 2012. The share of workers in middle-earning sectors (high-tech industry, commerce, utilities and transportation, and education and health) increased by 4.4 percentage points, from 53.2 to 57.5 per cent. The share in high-earning sectors (construction, public administration, and skilled services) rose as well, by 1.2 percentage points, from 15.6 to 16.8 per cent (Tables 5 and 6). Underlying the reduction in the share of low-earning sectors in total employment was the change in the productive structure of the Dominican economy. Before the severe banking crisis in 2003, the economy growth was based on export-oriented sectors, mainly in the production of textiles by the *maquila* or export free zone, captured by the low-tech industry sector in our statistics. The low-tech industry sector's share exhibited the largest reduction among the low-earning sectors, falling by 5.1 percentage points over the period. After the episode of the banking crisis, the economy growth switched to non-tradable sectors, mainly telecommunications, commerce, construction, and financial intermediation. But these sectors are less labour-intensive compared to the manufacturing sector, and their shares in total employment showed small increases during the period. The commerce, construction, and utilities and transportation sectors increased their shares by 0.6, 1.1, and 1.5 percentage points respectively. The reduction in the share of low-earning sectors in total employment was then offset mainly by the increase in the share of employment in other services sectors, like education and health, and domestic workers, sectors characterized by their low productivity and low earning levels (Abdullaev and Estevão 2013; ILO 2013). During the international crisis of 2008, the distribution of employment by economic sector squeezed: the share of mid-earning sectors increased, while the shares of low- and high-paid sectors declined by a similar magnitude. This trend continued up to the end of the period.

There was no dramatic difference between population groups (youth and adults, men and women) in the reduction in the share of low-earning sectors and in the increase in the share of high-earning sectors in total employment. The share of young workers in low-earning sectors dropped by 7.0 percentage points over the period, mainly due to an increase in the share of young workers employed in middle-earning sectors (rise of 6.1 percentage points) but due as well to a slight increase in the share of workers in high-earning sectors (increase of 1.2 percentage points). In the case of adult workers, the share of the low-earning sector fell by 5.4 percentage points; that reduction resulted in an increase in the share of adult workers in middle-earning sectors mainly (rise of 4.4 percentage points). When broken down by gender, the share of low-earning sectors in total employment decreased by 6.0 percentage points for women. There was, during the same period, an increase in the share of mid-earning sectors (rise of 5.5 percentage points) and a slight increase in the

share of high-earning sectors. The share of low-earning sectors in total employment for men fell by 5.1 percentage points over the period, while the share of middle-earning sectors and high-earning sectors increased by 3.2 and 1.9 percentage points respectively. The international crisis of 2008 led to an increase in the share of mid-earning sectors along with a reduction in the shares of both low- and high-earning sectors for young and adult workers and for men. This trend continued up to the end of the period for these three population groups. For women, the improving trend continued even during the international crisis.

The educational level of the employed population improved over the period for all population groups through the increase in the share of employed workers with medium levels of education mainly. The international crisis brought this trend to a standstill (Figure 7).

The share of employed workers with low educational levels (eight years of schooling or less) dropped from 56.5 per cent in 2000 to 46.1 per cent in 2012, while the shares of employed workers with middle and high educational levels (nine to thirteen years of schooling and over thirteen years of schooling) grew from 27.4 per cent in 2000 to 35.2 per cent in 2012 and from 16.1 to 18.7 per cent respectively.[4] 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.[5] During the international crisis of 2008, the trends described above stalled, but they resumed during the post-crisis period. Along with the improving trend in the educational level of the employed population, a disproportionate increase in the share of workers with medium and high educational levels in low-skill jobs, such as sales and services occupations and elementary jobs, took place in the Dominican Republic (Abdullaev and Estevão 2013).

The educational level of all population groups improved significantly. For the young employed population, the share of workers with low educational levels dropped from 46.4 per cent in 2000 to 32.2 per cent in 2012 (drop of 14.2 percentage points). The share of young workers with medium and high educational levels grew by 13.1 and 1.1 percentage points respectively. The reduction in the share of adult employed workers with low educational levels was also large (drop of 10.9 percentage points over the period) and the rate of adult workers with medium and high educational levels increased by 8.0 and 2.9 percentage points respectively. The reduction in the rate of workers with low educational levels was similar for men and for women (drop of 9.5 percentage points for men and 10.4 percentage points for women). The share of workers with high educational levels increased for women by 5.0 percentage points; for men, that figure was just 0.6 percentage points. During the international crisis of 2008, the educational distribution of employment deteriorated for young workers (the share of workers with low educational levels grew and the shares of those with medium

[4] The most frequent value of years of education for employed workers in Dominican Republic was 12 over the entire period (around 14.4 per cent of employed workers had twelve years of education).

[5] 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 the Dominican Republic in the paragraph on labour earnings.

and high educational levels declined), while it continued with the improving trend for adults, especially through a reduction in the share of workers with low educational levels and an increase in the share of those with medium levels of education. A possible explanation for the worsening in the employment structure of young workers 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 young workers could afford to remain unemployed during the crisis, while the less educated young workers were compelled by economic necessity to take up free-entry self-employment activities or unpaid family work. For men and women, there were little changes in their distribution of employment by educational level. The previous improving trend resumed during the post-crisis period.

As a result of a concerted effort by the government, the overall share of wage/salaried employees registered with the social security system increased dramatically among the population as a whole and among all population groups from 2005 (when data on this variable started becoming available) to 2012. While the international crisis slowed this upward trend, it resumed following the crisis (Figure 8).

The social security system in the Dominican Republic includes old-age, disability and survivorship, family health, and occupational hazard insurance plans. Since 2001 the system has followed an individual capitalization account model which comprises three regimes (Lavigne and Vargas 2013). First, the contributory regime covers wage earners from the public and private sectors and the self-employed. It is funded by workers' and employers' contributions. This regime has a solidarity component (*Fondo de Solidaridad Social*) funded by employers' contributions in order to guarantee a minimum pension for all affiliated, especially those with low incomes. Second, the fully subsidized regime protects self-employed workers with unstable incomes below the minimum wage, as well as the unemployed, disabled persons, and indigents. This regime is funded by the government. Finally, the contributory-subsidized regime aims to protect self-employed professionals and technicians that receive incomes equal or superior to the minimum wage through contributions from workers and the government. This regime has not been put into practice yet.

Social security records show a major increase in the percentage of wage/salaried employees registered with the contributory regime of the system from 2005 to 2012. The share of wage/salaried employees registered with the system grew from 46.7 per cent in 2005 (725,970 registered workers) to 70.9 per cent in 2012 (1,321,044 employed workers). Most of the increase in the percentage of registered wage/salaried employees took place between 2005 and 2008 when this share grew from 46.7 per cent to 71.4 per cent (474,115 newly registered workers). This rise coincides with the system's health insurance contributory scheme coming into force in 2007. From 2008 to 2010, a period that included the Great Recession, the upward trend slowed (rise from 71.4 per cent to 74.7 per cent). Between 2010 and 2012, the percentage of wage/salaried employees registered with the social security system fell to 70.9 per cent. The registration of workers in the social security system is expected to continue with the general upward trend of the period 2005–12 when the contributory-subsidized regime comes into force. The population targeted by this scheme is about 40.0 per cent of the working population of the country, and consequently, will require a substantial subsidy from the government. That is the main reason for the delay in the implementation (ILO 2014).

The aggregate trend toward greater enrolment in the social security system holds true when the employed population is broken down by age and gender. Young workers are the least likely to be

registered with the social security system, and their share increased less than the share of adults; in 2000, 31.4 per cent of young employees were registered and, in 2012, that figure stood at 50.8 per cent, an increase of 19.3 percentage points. The figures for adult workers were 51.4 and 75.7 per cent respectively, an increase of 24.2 percentage points. When broken down by gender, the trends are similar, though women workers are registered at a higher rate than men. The share of female employees registered with the social security system increased from 52.1 to 75.6 per cent (23.4 percentage points), while for men the rate rose from 43.3 to 67.6 per cent (24.2 percentage points).

Despite above-average economic growth when comparing 2000 and 2012, real labour earnings decreased at the same time. This is true for almost all the groups analysed. The effect of the international crisis on labour earnings is difficult to discern: labour earnings fell between 2007 and 2008, rose between 2008 and 2009, dropped again in 2010, and continued to decrease up to the end of the period (Figure 9).

Average monthly earnings, expressed in dollars at 2005 purchasing power parity (PPP), decreased by 26.7 per cent, from US$330 in 2000 to US$242 in 2012 (Table 6). This decrease was not uniform over the course of the period. Labour earnings decreased by 34.2 per cent between 2000 and 2004, the year of the economic downturn. They increased by 24.3 per cent from 2004 to 2006, fell again, by 6.8 per cent, from 2006 to 2008 (the start of the international crisis), and increased by 7.8 per cent between 2008 and 2009. A downward trend began in 2009 lasting until the end of the period. The lack of relationship between GDP per capita and labour earnings in the Dominican Republic is striking: from 2005 to 2012: GDP per capita increased by 39.0 per cent, while labour earnings decreased by 6.2 per cent. This phenomenon is explained by two factors. First, minimum wages have declined in real terms over the period studied. In 2010, real minimum wages were 7.0 per cent lower than in 2000 (Godínez and Máttar 2009; ILO 2013). Second, workers' bargaining power has weakened over time. Labour earnings and hourly wage reductions were a common trend in all economic sectors, even in those that exhibited productivity increases such as communications, financial services, and transport (Abdullaev and Estevão 2013). Hourly wages in the sectors that increased their share in total employment, services sectors mainly, also decreased. This evidence can be interpreted as a sign of weakened bargaining power of workers.

Labour earnings dropped overall between 2000 and 2012 for all population groups and almost all employment categories, and losses for high-earning categories tended to be larger than earning losses for low-earning categories. From 2000 to 2012, labour earnings dropped by 29.1 per cent for men, by 19.2 per cent for women, by 20.5 per cent for young workers, and by 28.5 per cent for adults. The drop in labour income for low-earning occupations was 24.6 per cent on average, while the loss for high-earning occupations was 33.7 per cent. Labour incomes of self-employed workers dropped by 40.4 per cent from 2000 to 2012; the losses for paid employees and employers were 11.2 and 55.1 per cent respectively. The loss in labour income for low-earning economic sectors was 4.2 per cent. Domestic workers were the only group whose labour earnings increased during the period (a rise of 24.4 per cent). On the other hand, labour incomes of high-earning economic sectors decreased by 29.7 per cent. Educational level is not an important determinant of labour income change: the labour incomes of workers with low, medium, and high educational levels dropped by 27.6, 30.1, and 31.7 per cent respectively. The relative wages among educational groups show a reduction in the wages of workers with high educational levels with respect to workers with low and medium educational levels, and an increase in the relative wage of workers with medium educational levels relative to those with low educational levels (Table 7). These trends can be interpreted in light

of the increase in the educational level of people in the labour force (Table 8), and changes in the productive structure of the economy. Previous evidence indicated that the sectors that increased their share in total employment increased their use of workers with medium and high educational levels despite being mainly low productivity sectors (Abdullaev and Estevão 2013). 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 Dominican Republic economy the increase in the relative demand for workers with medium educational levels (with respect to workers with low educational workers) offset the increase in their relative supply, driving up the wages of workers with medium to low educational levels. The contrary occurred for workers with high educational levels, for whom their relative wages (with respect to workers with low educational levels) decreased. The adjustment process also led to a reduction in the unemployment rate of workers with high educational levels, an increase for workers with low educational levels, and no change for workers with medium educational levels (Table 9).[6]

The evidence regarding the effects of the international crisis is mixed. In general, for all population groups and employment categories, labour earnings fell from 2007 to 2008, grew between 2008 and 2009, and dropped once again from 2009 to 2010.

Poverty increased from 2000 to 2004 and decreased from 2005 to 2012. One cannot be certain whether poverty was higher or lower in 2012 than in 2000 owing to data incomparability (Figure 10).[7]

The moderate and the extreme poverty rates (measured by the country's poverty lines) exhibited an upward trend from 2000 to 2004, the year of the downturn in the Dominican Republic, when the moderate and extreme poverty rates peaked at 39.1 and 14.5 per cent respectively. The percentage of working poor households (defined as the proportion of persons in the population living in poor households where at least one member works) experienced a similar trend and reached 35.7 per cent in 2004. Despite the overall reduction in labour earnings, those rates dropped almost every year from 2005 to 2012, a period that included the Great Recession. Analysis based on the 2.5 and 4 dollars-a-day PPP international poverty lines also shows peaks in 2004 followed by a downward trend after the Dominican crisis in 2003/2004 and through 2012.

The pattern of reducing poverty in the Dominican Republic since 2005 can be understood by examining incomes from various sources. Household labour earnings and remittances from abroad suffered a reduction from 2005 to 2012 (Figure 11). Despite this reduction, remittances have represented around 7.0 per cent of GDP during the 2000s, helping to mitigate the impacts of low

[6] These changes in the unemployment rate were obtained by making the comparison between 2000 and 2012. If the year 2010 is considered instead of 2012, which was a year of a slowdown in the activity level, a reduction in the unemployment rate of all educational groups is observed.

[7] Since the year 2005, the survey has included questions geared to better capturing non-labour incomes. The poverty rates between 2000 and 2004 are overestimated when compared to those of 2005–12. For example, had a similar set of questions been used in the 2005 and the 2004 surveys, the poverty rate of 4 dollars-a-day would have been 5.7 percentage points higher in 2005. To indicate the change in the survey instrument, lines are drawn separating the old and new questions in Figure 10.

wages and a weak social protection net (Ondetti 2012). On the other hand, pensions and government transfers increased from 2005 to 2012. Government transfers have improved their design starting in 2005. Before 2005, most social programmes were poorly targeted, reinforcing the private transfers pattern, such as remittances, which are directed to non-poor households mainly. Moreover, the amount of per capita government transfers was low, limiting their impact on poverty reduction (World Bank and IDB 2006). Starting in 2005, the number of beneficiaries has increased and the target has improved. However, the funding of social protection interventions has suffered reductions, especially during downturns. During the international crisis of 2008, the Dominican Republic was the Latin American country that cut social spending the most (Lavigne and Vargas 2013).

Inequality of labour earnings diminished overall, though erratically. Inequality of household per capita income remained unchanged between 2000 and 2004, though the Gini coefficient moved erratically during the period, and diminished from 2005 to 2012.[8] During the international crisis, there was a temporary increase in labour earnings inequality but no change in the inequality of per capita household income (Figure 12).

The Gini coefficient of household per capita income was unchanged between 2000 and 2004 (0.519). However, it declined from 0.499 in 2005 to 0.457 in 2012, a period that included the Great Recession. The bulk of the decrease took place in 2007, 2010, and 2012. The Gini coefficient of labour earnings among employed workers declined from 0.499 in 2000 to 0.451 in 2012. It decreased slightly from 2000 to 2006, when it stood at 0.484; it went on to decrease rapidly until 2008, dropping as low as 0.457 only to increase to 0.471 during the international crisis. It has fallen every year since then. This reduction in labour earnings inequality is in keeping with the fact that earnings reductions were larger for high-earning employment categories compared to low-earning categories. As a consequence, the reduction in labour earning inequality in Dominican Republic occurred at the expense of income losses for all employment categories.

Changes in household per capita income inequality in the Dominican Republic 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 2000–10 and found that changes in labour incomes and in incomes from transfers contributed the most and equally to the inequality reduction over this period.[9] Demographical factors, such as the share of occupied by adults and the share of adults, had an inequality increasing effect. 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 distribution of the stock of education (the 'quantity effect') were inequality reducing in the Dominican Republic between 2000 and 2010 (the Gini coefficient of labour earnings decreased from 0.499 to 0.464 between 2000 and 2010), while changes in the education wage premium (or the 'price effect') were inequality increasing although the effect was small.

[8] The changes introduced in the household survey in 2005 prevent us from making comparisons between the Gini coefficient of household per capita income before and after that year.

[9] The authors analyse the period 2000–10 and report a reduction in the Gini coefficient of household per capita income. However, they do not indicate if household income was adjusted to allow the comparability before and after 2005. We consider their result should be interpreted with caution.

4 Conclusions

By Latin American standards, the Dominican Republic experienced above average economic growth during the 2000s. Within the 2000–12 period, GDP per capita stagnated through 2004 and, for the most part, grew rapidly from 2005 through 2012. The international crisis of 2008 led to a slowdown, but growth rates remained positive in every year.

Despite the country's high rates of economic growth, the evidence regarding the changes in labour market indicators between 2000 and 2012 is mixed. Some indicators improved while others deteriorated over the period. The improvements were as follows. The employment composition by economic sector improved over the course of the period studied: the share of workers employed in low-earning sectors decreased, and the share of workers in mid-earning sectors increased due to the change in the productive structure of the economy that moved from being export-oriented to being based on services sectors. The educational level of the employed population improved over the period. The share of wage/salaried employees registered with the social security system increased dramatically. Inequality of household per capita income and of labour earnings diminished overall. Given differences in which incomes are included before 2005 and afterwards, one cannot be certain about what happened to poverty from 2000 to 2012; what does appear clearly is that poverty increased from 2000 to 2004 and decreased from 2005 to 2012. However, not everything improved: the unemployment rate increased between 2000 and 2012 following a V-pattern; the employment structure by occupational group exhibited a slight worsening; the composition of employment by occupational position deteriorated over the period; and real labour earnings decreased.

The international crisis of 2008 affected most labour market indicators negatively. The unemployment rate increased during the crisis and then dropped, though as of 2012 the pre-crisis rate had not been reached. The share of low-earning occupations continued with its upward trend during the crisis as well, while the share of high-earning occupations began a downward trend and its pre-crisis level had not been reached as of 2012. The composition of the employed population by occupational position continued with the worsening trend, though by 2012 the share of wage/salaried employees had returned to the pre-crisis level. Inequality of labour earnings increased between 2008 and 2009, after which inequality returned to its pre-crisis level. On the other hand, labour earnings did not fall between 2008 and 2009, but began a downward trend and continued to decrease up to the end of the period. The comparison between the effects of the international crisis of 2008 on labour market indicators and the effects generated by the banking crisis of 2003 reveals that the crisis at the beginning of the 2000s impacted the Dominican Republic more strongly. The crisis of 2003 generated a reduction in GDP, while economic growth slowed but remained positive during the international crisis of 2008. Labour earnings suffered a reduction during the domestic crisis of 2003, which led to an increase in all poverty indicators that peaked in 2004, and in household per capita income inequality. On the other hand, the international crisis of 2008 did not have an immediate impact on labour earnings, which began a downward trend in 2010; all poverty indicators fell and household per capita income inequality remained unchanged.

Young workers had worse labour market outcomes over the period compared to adults, but they do not seem to be more vulnerable to macroeconomic crises. Men and women exhibited a balanced situation in their labour market outcomes and in the negative impacts of the crises. The unemployment rate was higher for young compared to adult workers, the share of young employed

workers in low-earning occupations was larger than the share of adult workers while the share in high-paid sectors was lower, 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 compared to adults. Despite the generally inferior situation of young workers in the labour market compared to adults, both age groups were negatively affected in a similar number of labour market indicators by the economic crises faced by the country. The banking crisis of 2003 led to a larger increase in the unemployment rate and in the share of young workers in low-earning occupations, but the earnings reduction was larger for adults. The international crisis of 2008 led again to a larger increase in the unemployment rate of young workers and to a slight reduction in the share of registered young workers. On the other hand, the increase in the share of low-earning positions, i.e. self-employed workers and unpaid workers, was larger among adults. Disaggregating by gender, we found that men were better than women in some cases, e.g. the male unemployment rate was lower, the share of male workers in low-earning occupations was lower compared to women, and labour earnings of men were higher than labour earnings of women; in other cases, the opposite occurred, e.g. the percentage of workers registered with the social security system was larger for women compared to men, and the share of workers in low-earning positions and sectors was lower for women compared to men. The negative impacts of the crises affected men and women similarly. The unemployment rate increased more for men compared to women during the banking crisis of 2003, but earnings losses were larger for women. During the international crisis of 2008, the unemployment rate increased more for women than for men, but the shares of low-earning occupations and positions increased by more for men.

In summary, despite the above average economic growth for the Latin American region, changes in labour market indicators were mixed in the Dominican Republic, with the fall in real labour earnings being the more striking result.

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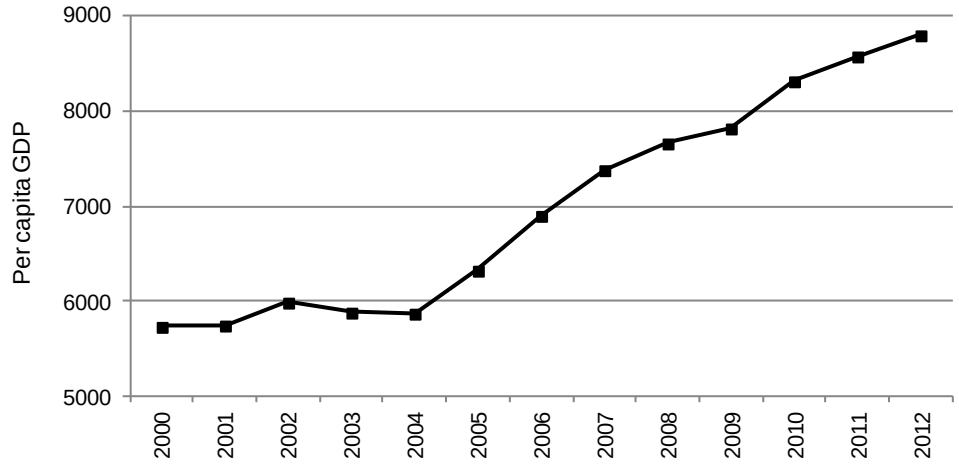
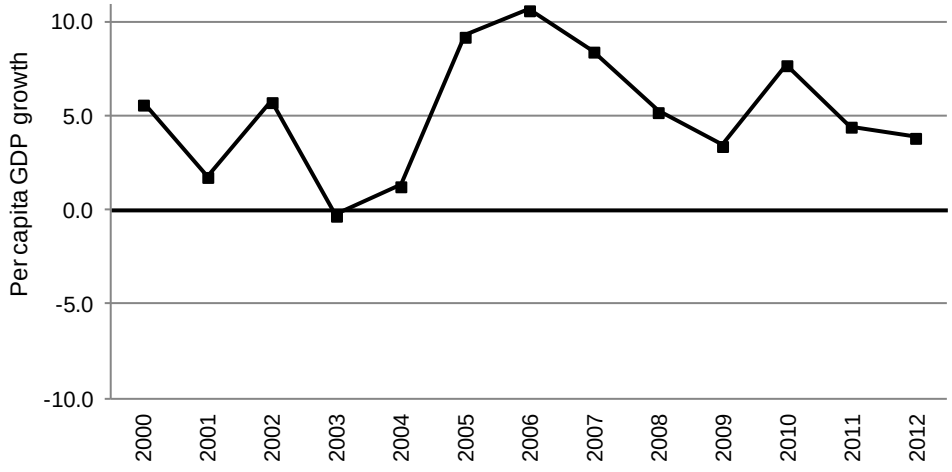
Figures

Figure 1: GDP per capita at PPP dollars of 2005, 2000–12



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

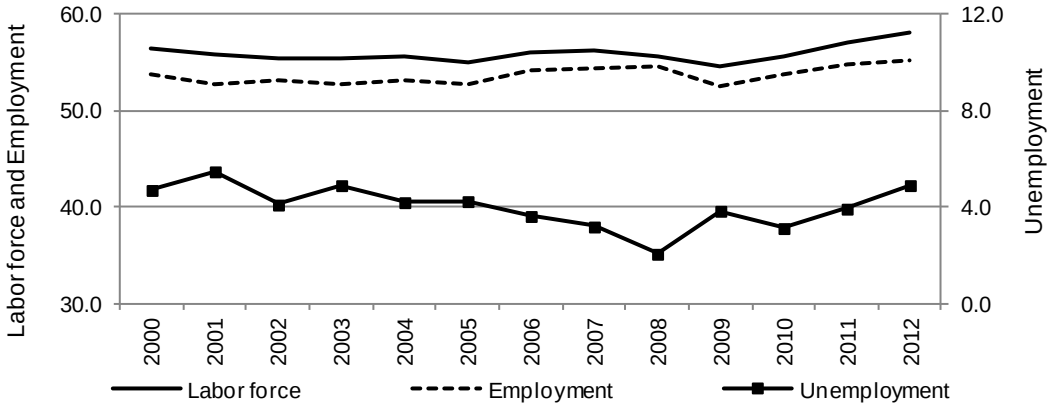
Figure 2: Annual growth of GDP per capita at PPP dollars of 2005, 2000–12



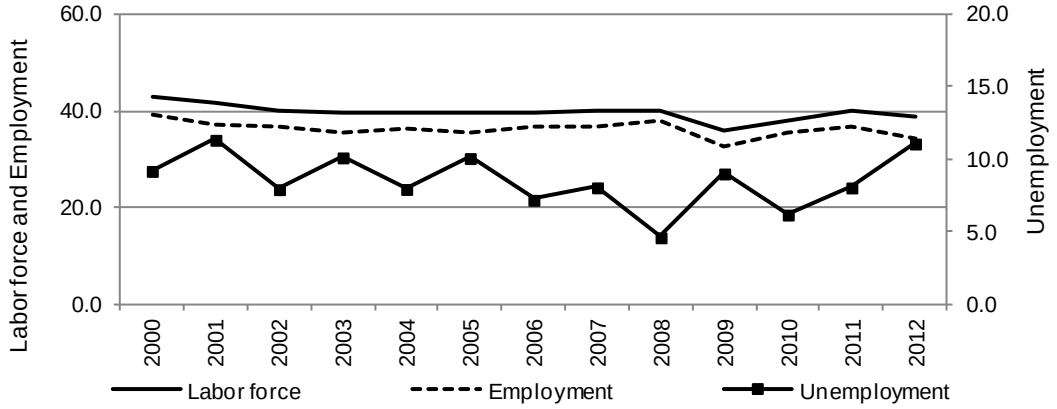
Source: World Development Indicators (the World Bank 2014).

Figure 3: Labour force rate, employment-to-population rate and unemployment rate: population 15 years old or more, 2000–12

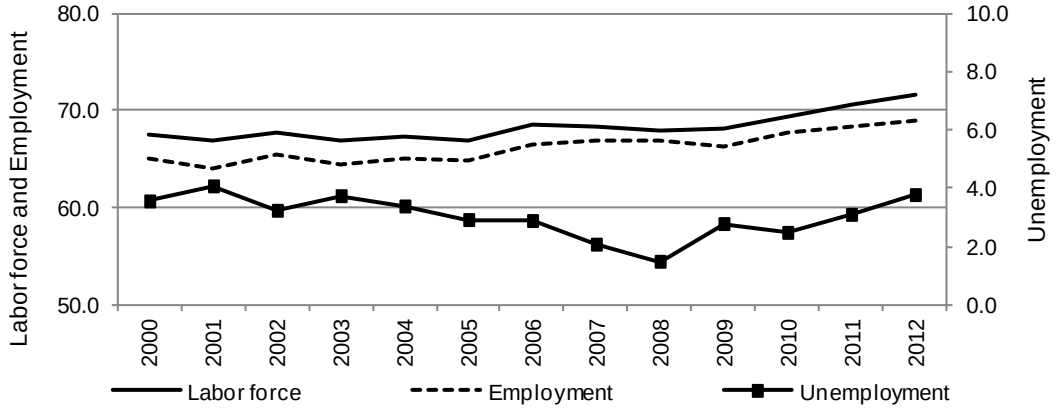
(a) All



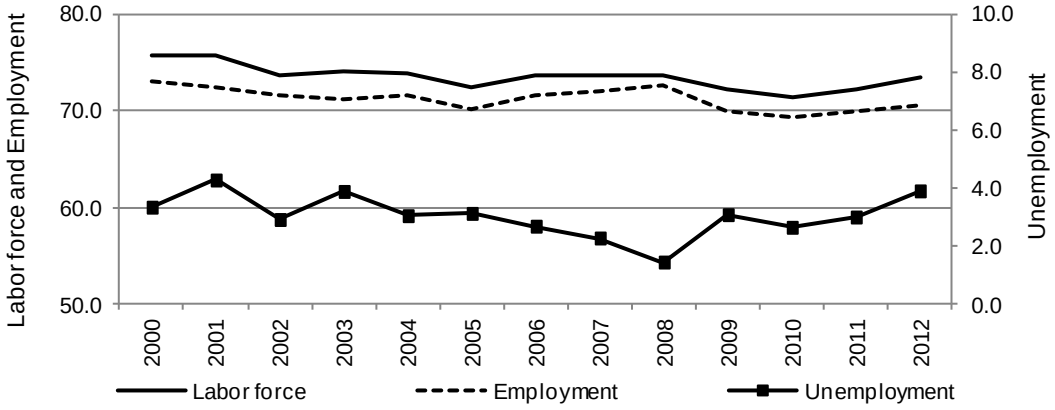
(b) Youth (15 to 24 years old)



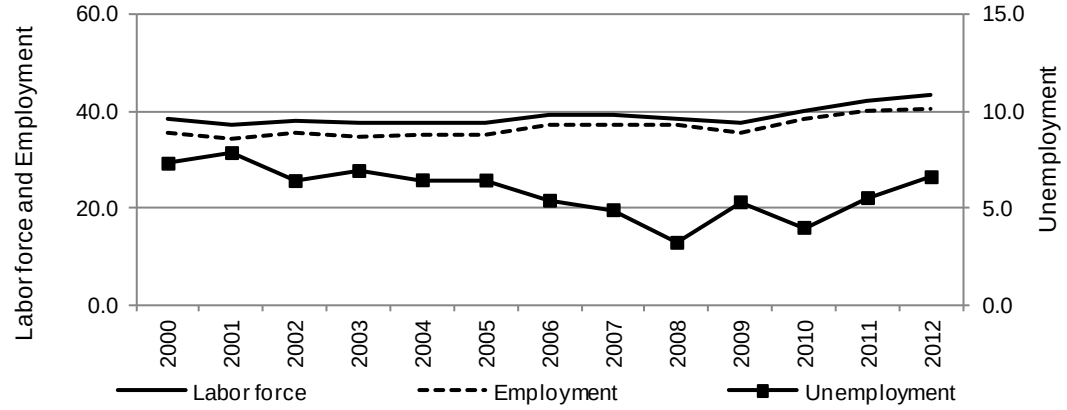
(c) Adults (25 to 64 years old)



(d) Men

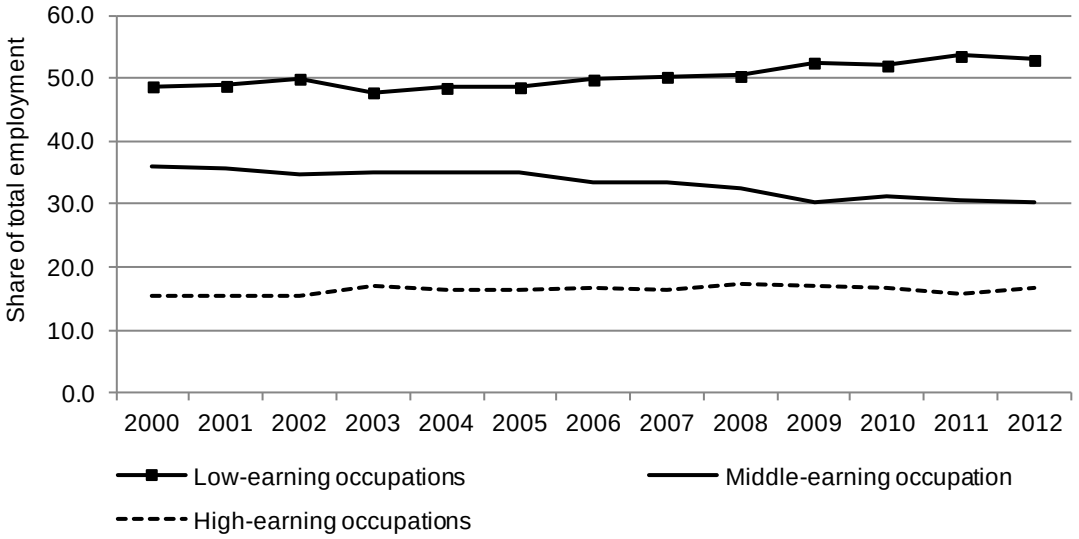


(e) Women



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

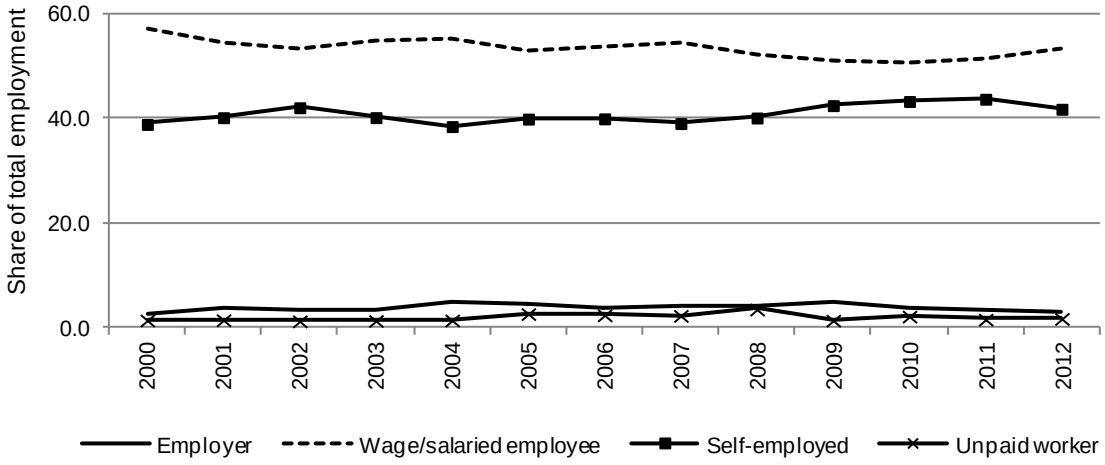
Figure 4: Share of employment by occupational group (categories grouped by earning levels): all employed workers, 15 years old or more, 2000–12



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

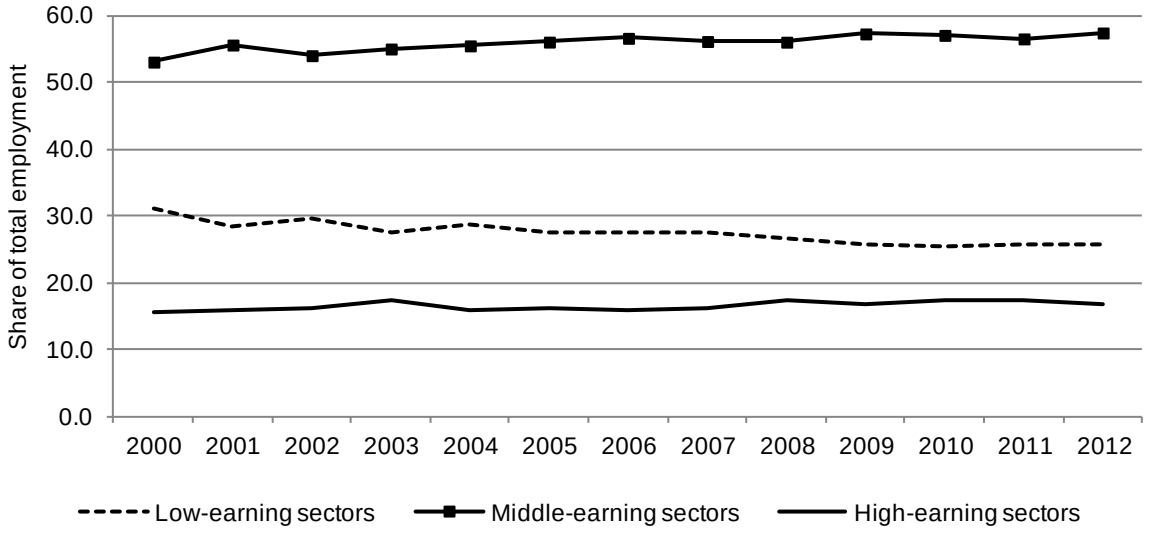
Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 5: Share of employment by occupational position: all employed workers, 15 years old or more, 2000–12



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, 2000–12

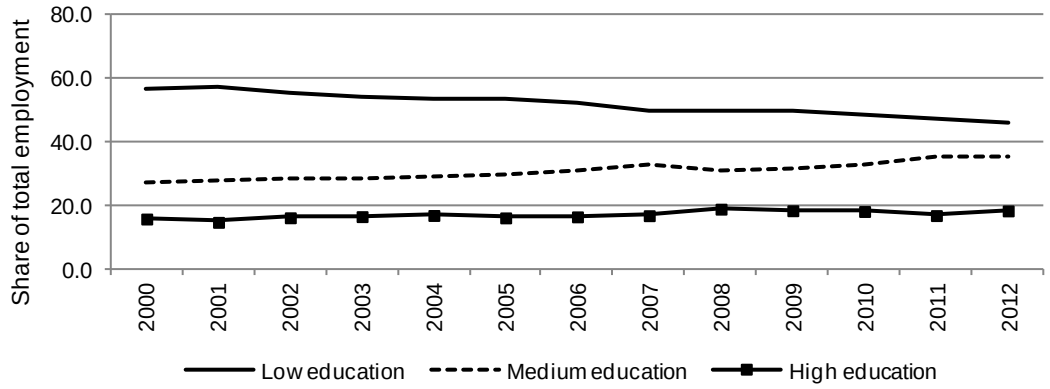


Note: Low-earning sectors: primary activities, domestic workers, low-tech industry. Middle-earning sectors: commerce, high-tech industry, utilities and transportation, education and health. High-earning sectors: skilled services, public administration, and construction.

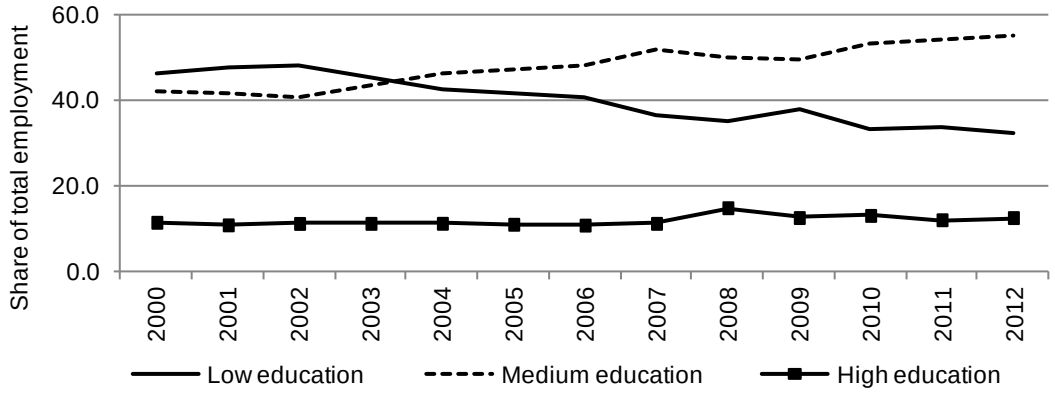
Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 7: Share of employment by educational level: employed workers, 15 years old or more, 2000–12

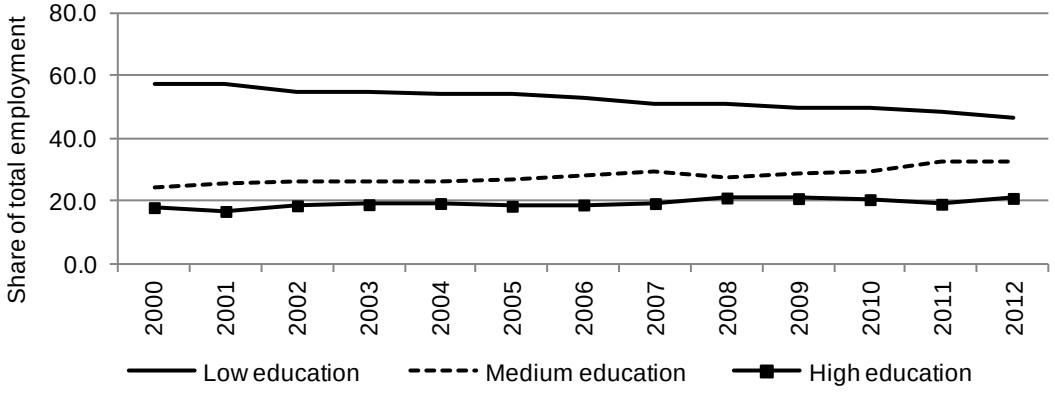
(a) All employed workers



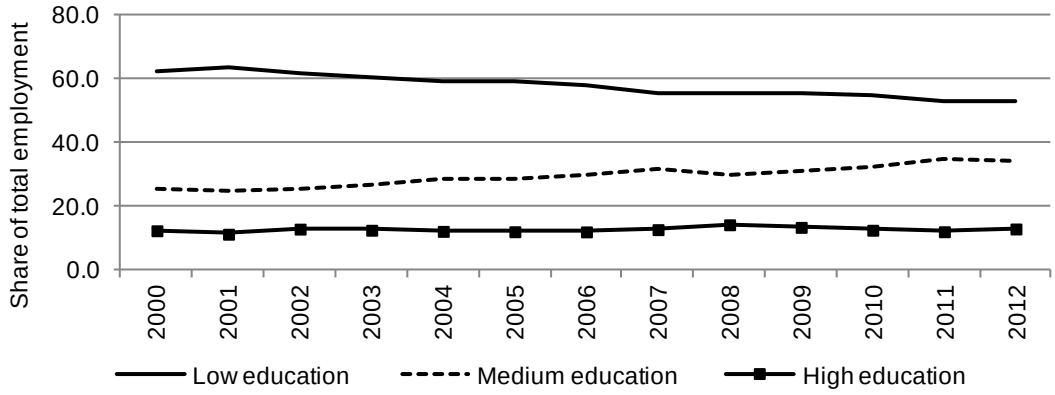
(b) Youth (15 to 24 years old)



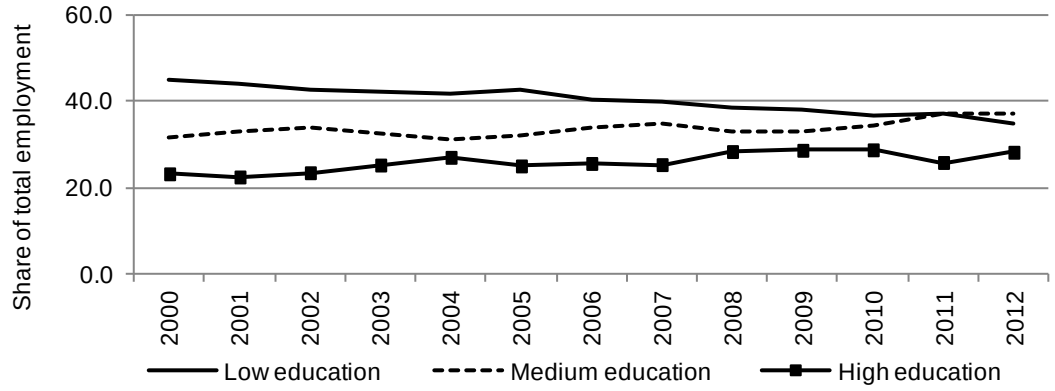
(c) Adults (25 to 64 years old)



(d) Men



(e) Women

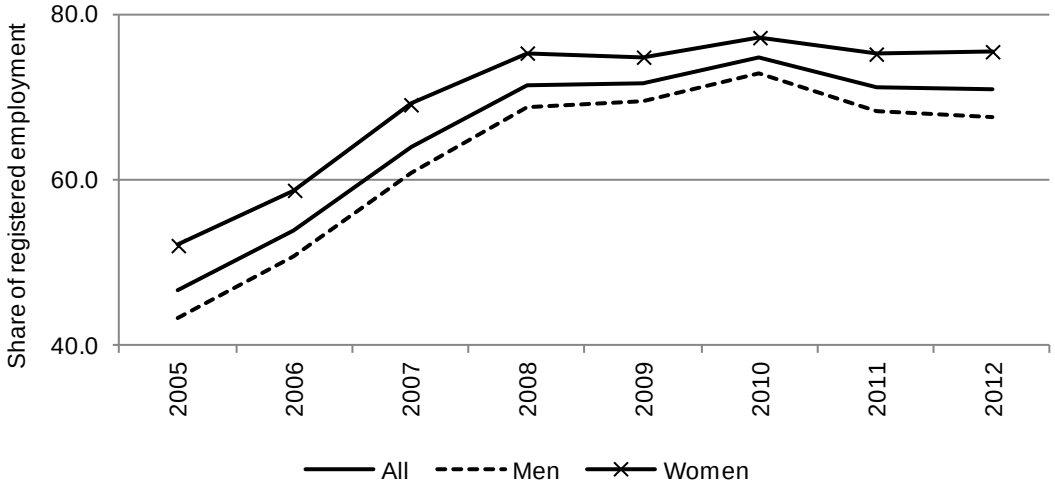


Note: Low: eight years of schooling or less. Medium: from nine to thirteen years of schooling. High: Over thirteen years of schooling.

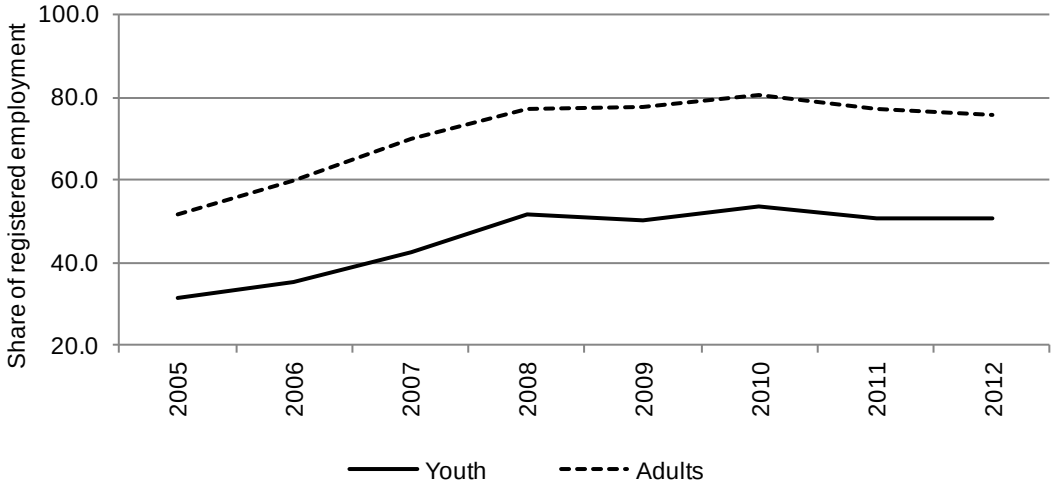
Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 8: Share of employment registered with the national social security system: wage/salaried employees, 15 years old or more, 2000–12

(a) Overall and by gender



(b) By age group

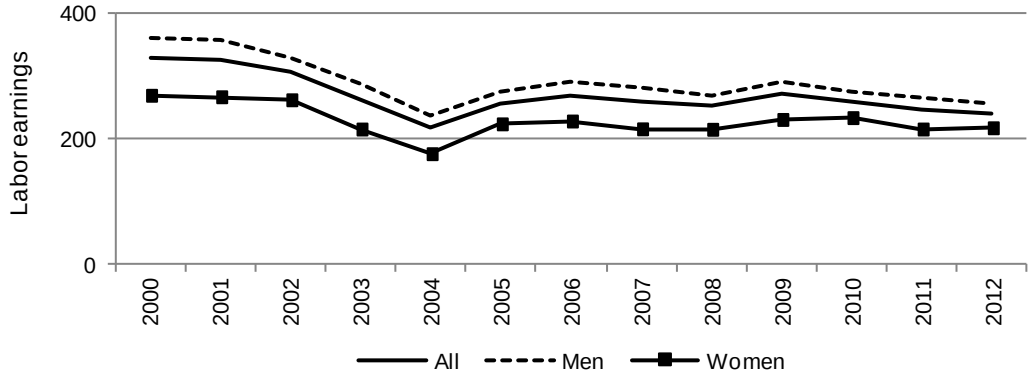


Note: Data no available in the ENFT surveys before 2005.

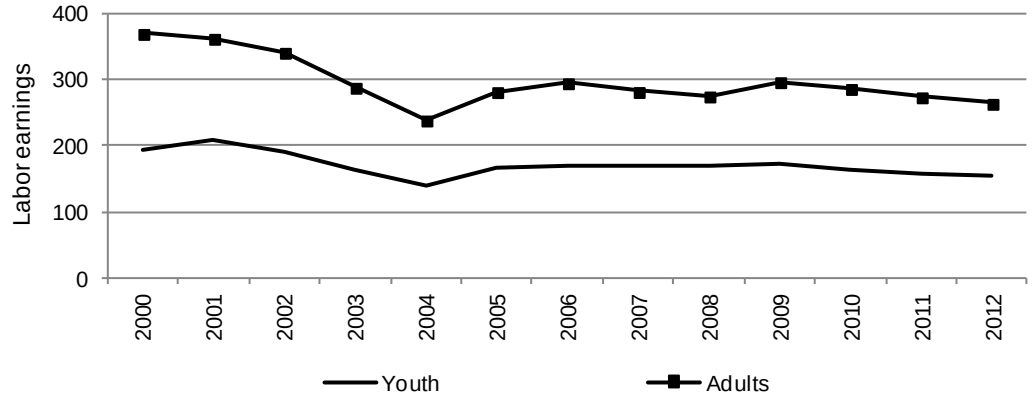
Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 9: Monthly labour earnings at PPP dollars of 2005, 2000–12

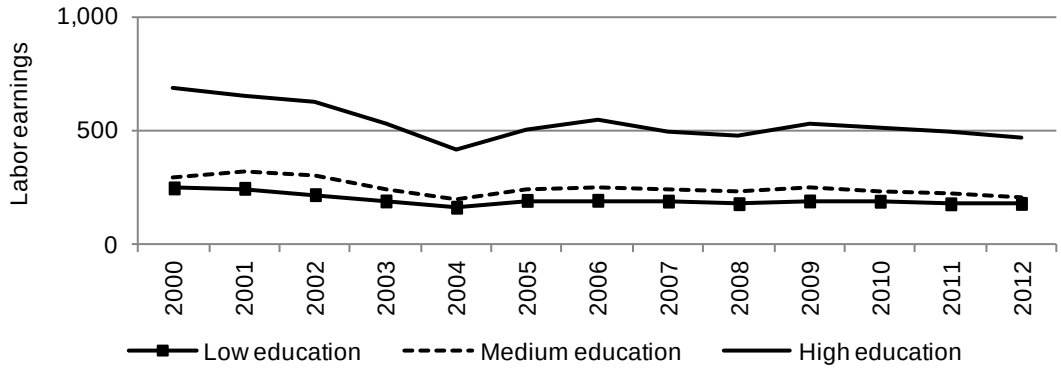
(a) Overall and by gender



(b) By age



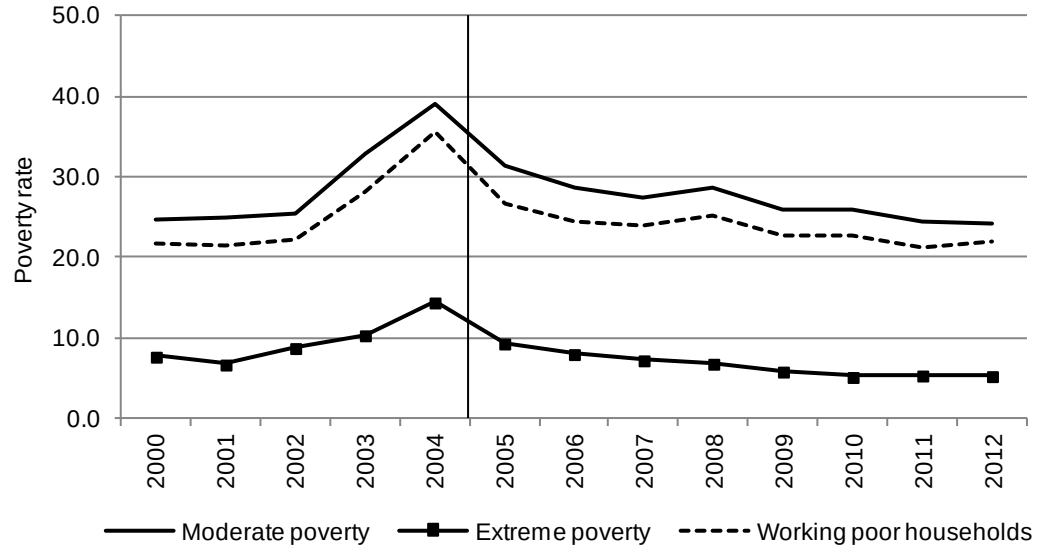
(c) By educational level



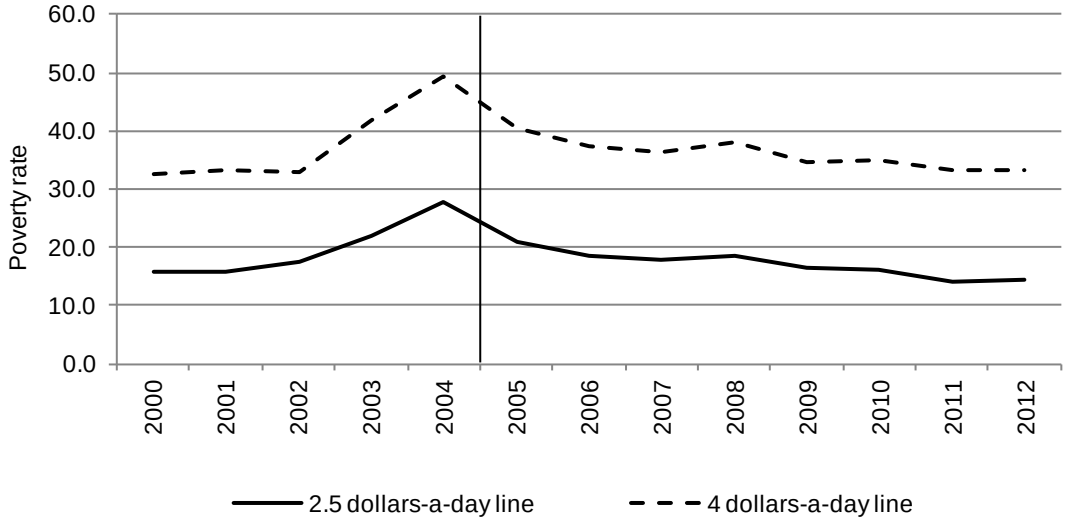
Source: Authors' calculations from SEDLAC (CEDLAS and the World Bank 2014).

Figure 10: Poverty rates and working poor households, 2000–12

(a) Official lines



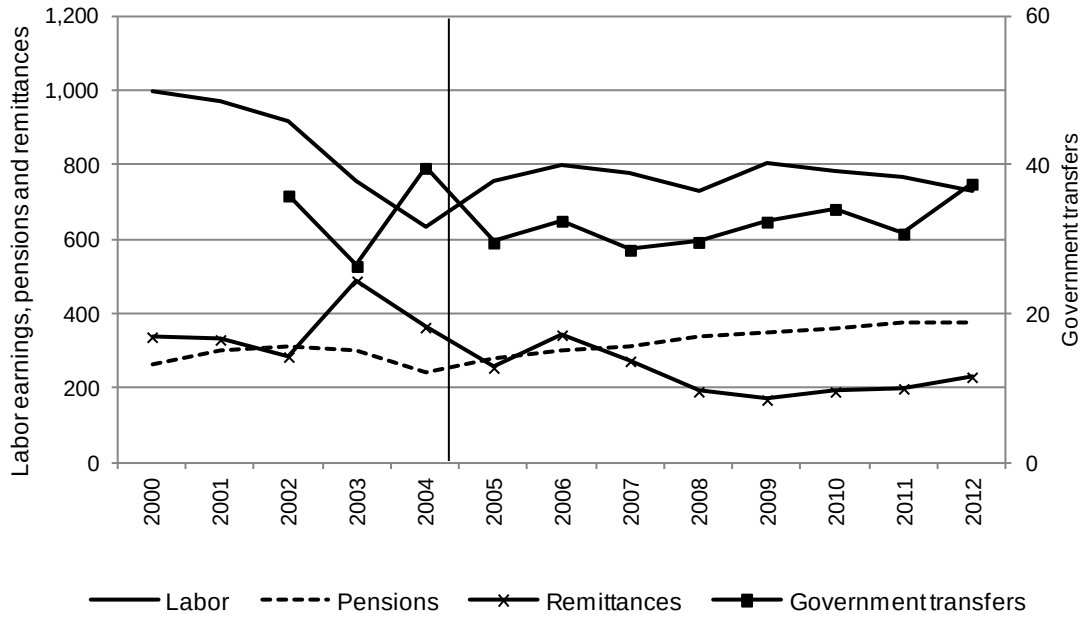
(b) International lines



Note: The series 2000–04 and 2005–12 are not fully comparable due to change in questions related to households' non-labour income.

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

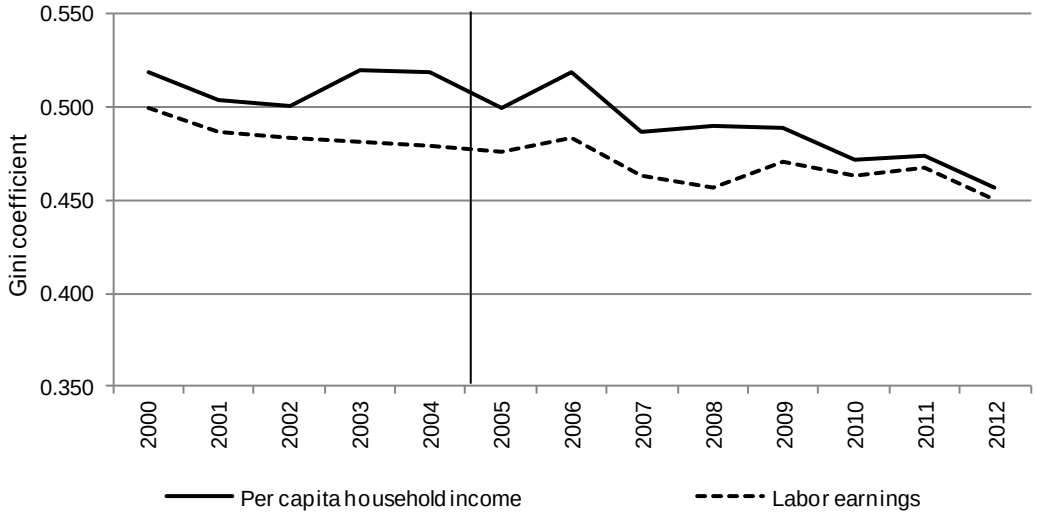
Figure 11: Sources of monthly household total income at PPP dollars of 2005, 2000–12



Notes: There is no information about government transfers for 2000 and 2001. Incomes from pensions, remittances and government transfers are not comparable before and after 2005.

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

Figure 12: Gini coefficient of household per capita income and labour earnings, 2000–12



Note: The series 2000–04 and 2005–12 are not fully comparable for the Gini coefficient of household per capita income due to change in questions related to households' non-labour income.

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

Tables

Table 1: Household surveys' description

	Number of households	Number of persons
2000	5,696	22,465
2001	5,692	22,249
2002	5,720	22,144
2003	7,904	29,771
2004	7,698	29,289
2005	7,915	30,038
2006	7,665	28,655
2007	7,649	28,469
2008	8,376	30,672
2009	8,281	30,430
2010	8,181	29,901
2011	8,191	29,532
2012	8,163	29,130

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

Table 2: Macroeconomic variables, 2000–12

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
GDP[1,2]	49,705	50,604	53,534	53,398	54,098	59,109	65,417	70,961	74,690	77,270	83,260	86,992	90,374
GDP per capita [1]	5,737	5,751	5,991	5,886	5,876	6,326	6,901	7,380	7,660	7,818	8,312	8,573	8,794
GDP per person employed [1]	15,504	15,992	16,352	16,376	15,972	17,099	17,882	18,955	19,389	19,682	20,887	21,413	21,872
GDP growth	5.66	1.81	5.79	-0.25	1.31	9.26	10.67	8.47	5.26	3.45	7.75	4.48	3.89
GDP per capita growth	4.00	0.24	4.18	-1.75	-0.19	7.67	9.08	6.94	3.80	2.05	6.33	3.14	2.58
Exports of goods and services[1,2]	37.05	33.73	32.48	43.08	42.33	30.03	29.99	28.78	25.49	22.25	23.03	25.05	24.88
Agriculture, value added (% of GDP)	7.25	7.46	7.21	6.42	6.99	7.45	7.06	6.57	6.31	6.21	6.22	5.96	6.05
Industry, value added (% of GDP)	35.91	34.17	34.96	33.80	32.96	32.06	32.16	31.56	32.19	32.45	32.04	33.08	31.74
Services, value added (% of GDP)	56.85	58.37	57.83	59.78	60.05	60.49	60.78	61.87	61.50	61.33	61.74	60.96	62.20
Agriculture, value added [1,2]	1,978	2,166	2,220	2,261	2,205	2,334	2,534	2,566	2,479	2,788	2,941	3,101	3,227
Industry, value added [1,2]	9,295	9,141	9,617	9,398	9,428	10,040	10,690	10,985	11,170	10,919	11,753	12,395	12,606
Services, etc., value added [1,2]	14,320	15,161	16,292	16,949	17,406	18,943	20,998	22,944	24,811	26,038	27,958	28,666	29,733
Total population [2]	8.66	8.80	8.94	9.07	9.21	9.34	9.48	9.62	9.75	9.88	10.02	10.15	10.28
Working age population (15-64) [2]	5.19	5.30	5.40	5.51	5.61	5.72	5.84	5.95	6.07	6.18	6.29	6.40	6.50

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, 2000–12

(a) All employed workers

	Manage-ment	Professio-nals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades workers	Plant & machine operators, assemblers	Elementary
2000	2.66	6.22	6.47	7.32	18.27	10.63	15.63	12.94	19.87
2001	3.35	5.41	6.77	7.29	18.64	11.07	15.84	12.49	19.13
2002	2.75	6.14	6.50	7.44	17.72	12.10	14.45	12.75	20.16
2003	3.24	6.43	7.39	6.51	17.85	9.58	15.75	12.86	20.37
2004	2.97	6.80	6.70	6.81	17.66	10.34	15.47	12.73	20.52
2005	3.05	6.17	7.02	6.87	18.00	10.17	16.30	11.97	20.46
2006	3.25	6.82	6.67	6.42	18.67	10.42	16.00	11.00	20.75
2007	3.04	6.41	6.89	7.05	19.19	10.78	14.88	11.45	20.31
2008	3.41	7.47	6.28	6.83	19.44	8.61	14.38	11.21	22.37
2009	3.02	7.16	6.84	6.98	19.10	8.69	13.84	9.62	24.74
2010	3.41	7.04	6.36	7.69	19.41	8.99	13.58	9.85	23.68
2011	2.94	6.10	6.78	7.40	20.50	8.60	13.93	9.27	24.50
2012	3.42	6.25	7.09	7.64	20.05	8.20	13.35	9.28	24.72

(b) Youth (15 to 24 years old)

	Manage-ment	Professio-nals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades workers	Plant & machine operators, assemblers	Elementary
2000	0.43	1.21	6.32	12.06	20.06	6.56	18.37	15.99	19.00
2001	1.02	1.09	6.72	12.09	20.69	6.39	19.61	13.60	18.79
2002	0.44	1.23	7.25	10.99	19.12	8.25	16.61	15.40	20.71
2003	0.23	1.30	8.29	12.03	19.75	5.33	19.20	13.84	20.05
2004	0.47	1.35	5.87	12.19	20.70	7.37	18.27	12.55	21.22
2005	0.73	1.59	7.49	11.97	18.92	7.49	19.03	11.30	21.49
2006	1.15	1.92	7.08	10.66	20.77	9.96	16.92	9.28	22.26
2007	0.68	1.77	6.93	11.13	23.46	11.99	16.26	9.67	18.10
2008	0.89	1.84	7.37	11.52	26.22	5.66	15.64	9.98	20.88
2009	1.45	1.26	6.79	11.06	23.31	6.37	14.81	9.81	25.13
2010	1.06	0.88	8.63	13.02	24.20	6.54	14.83	7.08	23.75
2011	0.63	0.80	6.68	13.94	24.21	6.08	15.30	7.01	25.34
2012	0.49	0.47	8.50	11.62	24.20	5.96	16.03	7.27	25.47

(c) Adults (25 to 64 years old)

	Manage-ment	Professio-nals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades workers	Plant & machine operators, assemblers	Elementary
2000	3.25	7.90	6.70	6.29	17.60	10.33	15.06	12.53	20.35
2001	3.91	6.76	6.95	6.36	18.48	10.52	15.18	12.70	19.15
2002	3.41	7.71	6.40	6.83	17.60	11.65	14.15	12.48	19.77
2003	3.97	7.93	7.40	5.37	17.42	9.05	15.36	13.20	20.30
2004	3.61	8.46	7.14	5.68	16.77	9.56	15.19	13.27	20.32
2005	3.61	7.65	7.00	5.94	17.69	9.00	16.07	12.75	20.29
2006	3.76	8.27	6.78	5.60	18.28	9.23	16.15	11.83	20.11
2007	3.58	7.84	7.09	6.29	18.26	9.11	14.98	12.31	20.53
2008	4.08	9.17	6.27	5.89	17.67	7.89	14.33	12.00	22.70
2009	3.42	8.71	7.11	6.24	18.44	7.59	14.01	9.99	24.49
2010	4.03	8.81	6.06	6.67	18.48	8.01	13.64	10.83	23.47
2011	3.63	7.76	6.82	6.12	19.64	7.60	13.85	10.21	24.37
2012	4.08	7.84	7.00	7.09	19.09	7.15	13.15	10.04	24.55

(d) Men

	Manage-ment	Professio-nals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades workers	Plant & machine operators, assemblers	Elementary
2000	3.01	4.78	4.68	3.80	14.13	15.33	20.76	14.33	19.18
2001	3.23	4.21	4.84	4.17	13.27	16.00	21.40	15.30	17.58
2002	2.70	4.64	5.10	3.52	12.69	17.49	19.47	15.66	18.72
2003	3.50	4.77	5.66	3.16	13.03	14.00	21.60	15.63	18.65
2004	2.88	4.80	5.29	3.49	13.19	15.04	21.39	15.34	18.58
2005	3.08	3.91	5.74	3.70	12.85	14.31	22.42	14.94	19.05
2006	2.90	4.64	5.57	3.28	13.24	15.29	22.17	14.32	18.59
2007	3.39	4.30	5.65	3.47	14.10	15.89	20.71	15.06	17.43
2008	3.80	4.73	5.34	3.16	14.34	12.74	20.26	14.96	20.66
2009	2.93	4.76	5.64	3.36	14.72	12.78	19.49	13.12	23.19
2010	3.54	4.09	4.83	4.37	13.76	13.24	19.76	13.61	22.80
2011	2.55	3.82	5.25	4.01	15.40	12.65	19.62	12.90	23.79
2012	3.02	3.87	5.29	4.15	14.60	12.42	19.16	13.34	24.15

(e) Women

	Manage-ment	Professio-nals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades workers	Plant & machine operators, assemblers	Elementary
2000	2.01	8.98	9.91	14.12	26.25	1.57	5.73	10.25	21.19
2001	3.60	7.78	10.59	13.48	29.29	1.31	4.81	6.93	22.21
2002	2.85	9.08	9.23	15.12	27.61	1.51	4.58	7.03	22.99
2003	2.72	9.71	10.79	13.13	27.35	0.89	4.22	7.41	23.77
2004	3.14	10.74	9.48	13.34	26.44	1.10	3.84	7.60	24.33
2005	2.98	10.64	9.54	13.12	28.13	2.01	4.23	6.11	23.24
2006	3.89	10.91	8.74	12.30	28.83	1.29	4.44	4.79	24.82
2007	2.37	10.37	9.21	13.74	28.69	1.24	3.97	4.70	25.70
2008	2.67	12.60	8.04	13.70	28.97	0.88	3.36	4.19	25.57
2009	3.19	11.72	9.12	13.88	27.43	0.91	3.08	2.97	27.69
2010	3.19	12.19	9.03	13.48	29.27	1.58	2.79	3.27	25.21
2011	3.61	9.99	9.38	13.18	29.21	1.66	4.21	3.05	25.71
2012	4.09	10.26	10.13	13.53	29.22	1.09	3.57	2.45	25.67

Note: The change in the household surveys implemented in 2008 led to a re-categorization of agricultural, forestry and fishery occupations and of elementary occupations. Both of these categories fall into the low-earning occupations group, this re-categorization does not affect our overall conclusions about the evolution of the occupational composition of the employed population.

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, 2000–12

(a) All employed workers

	Employer	Wage/salaried employee	Self-employed	Unpaid worker
2000	2.59	56.90	38.98	1.53
2001	3.86	54.30	40.26	1.58
2002	3.19	53.29	42.16	1.36
2003	3.49	54.80	40.27	1.44
2004	4.72	55.18	38.57	1.53
2005	4.42	52.83	39.99	2.76
2006	3.87	53.56	40.04	2.52
2007	4.23	54.23	39.14	2.41
2008	4.04	52.14	40.20	3.62
2009	4.86	51.07	42.56	1.51
2010	3.75	50.62	43.36	2.27
2011	3.18	51.33	43.79	1.70
2012	3.12	53.18	41.87	1.82

(b) Youth (15 to 24 years old)

	Employer	Wage/salaried employee	Self-employed	Unpaid worker
2000	0.50	69.56	25.52	4.41
2001	0.84	68.44	27.18	3.55
2002	0.30	64.14	31.16	4.40
2003	0.49	65.43	29.63	4.45
2004	0.85	66.00	28.26	4.90
2005	0.45	60.96	29.46	9.13
2006	0.52	62.08	28.33	9.07
2007	0.87	60.59	28.91	9.63
2008	0.49	55.98	33.19	10.34
2009	1.11	59.01	35.44	4.44
2010	0.82	53.68	38.10	7.40
2011	0.44	57.79	37.09	4.67
2012	0.27	57.30	36.06	6.37

(c) Adults (25 to 64 years old)

	Employer	Wage/salaried employee	Self-employed	Unpaid worker
2000	3.15	55.03	41.14	0.68
2001	4.47	52.46	41.95	1.12
2002	3.86	52.08	43.43	0.63
2003	4.10	53.67	41.52	0.72
2004	5.69	54.31	39.32	0.68
2005	5.16	52.71	40.90	1.23
2006	4.60	52.98	41.46	0.96
2007	4.91	54.15	40.23	0.71
2008	4.72	52.68	40.56	2.04
2009	5.24	51.09	42.80	0.87
2010	4.35	51.41	43.20	1.05
2011	3.54	51.72	43.69	1.06
2012	3.56	54.11	41.42	0.91

(d) Men

	Employer	Wage/salaried employee	Self-employed	Unpaid worker
2000	3.08	49.91	45.74	1.27
2001	4.47	48.09	46.39	1.05
2002	3.76	45.88	49.15	1.21
2003	4.39	47.01	47.38	1.23
2004	5.57	48.05	45.11	1.27
2005	5.12	45.97	46.95	1.95
2006	4.38	45.87	47.43	2.32
2007	5.20	46.79	45.52	2.50
2008	5.11	44.34	48.30	2.25
2009	5.93	42.47	50.64	0.96
2010	4.06	42.56	51.70	1.68
2011	3.70	43.12	52.08	1.10
2012	3.53	44.98	50.04	1.44

(e) Women

	Employer	Wage/salaried employee	Self-employed	Unpaid worker
2000	1.63	70.53	25.80	2.04
2001	2.62	66.77	27.96	2.66
2002	2.06	67.95	28.34	1.66
2003	1.70	70.31	26.14	1.85
2004	3.04	69.29	25.62	2.05
2005	3.02	66.48	26.16	4.35
2006	2.92	68.06	26.11	2.90
2007	2.40	68.26	27.10	2.24
2008	2.03	66.79	24.98	6.20
2009	2.81	67.57	27.06	2.55
2010	3.19	64.80	28.70	3.31
2011	2.30	65.43	29.54	2.73
2012	2.43	67.04	28.05	2.47

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, 2000–12

(a) All

	Primary activities	Low-tech industry	High-tech industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2000	15.84	11.00	5.96	5.85	26.50	7.17	5.17	4.60	13.54	4.38
2001	15.29	9.12	5.87	6.69	26.54	8.79	4.23	4.85	14.53	4.10
2002	16.81	8.52	5.75	6.27	25.80	8.24	4.81	5.08	14.34	4.38
2003	13.95	9.07	5.66	7.14	25.96	8.64	5.54	4.54	14.88	4.63
2004	14.98	8.72	6.91	6.61	25.34	8.35	4.70	4.42	15.00	4.97
2005	14.86	7.98	6.90	6.67	26.76	8.16	4.93	4.64	14.35	4.75
2006	14.87	7.31	6.85	7.00	26.60	8.04	4.47	4.39	15.25	5.22
2007	14.41	7.28	6.68	7.01	26.61	8.20	4.75	4.44	14.77	5.85
2008	14.11	6.51	6.13	6.89	27.33	8.38	6.07	4.35	14.32	5.93
2009	14.96	5.21	5.30	6.26	27.80	8.54	5.75	4.76	15.75	5.66
2010	14.72	5.41	5.06	6.38	27.45	8.64	5.97	4.94	16.03	5.42
2011	15.03	5.06	5.15	6.34	27.65	8.13	6.22	4.94	15.71	5.76
2012	13.78	5.93	4.57	6.42	27.59	8.68	5.38	4.97	16.69	5.99

(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
2000	12.73	13.88	9.61	4.81	29.61	7.36	4.54	3.09	10.47	3.91
2001	11.56	11.11	8.64	7.44	27.29	8.70	4.33	3.53	13.53	3.87
2002	14.73	9.66	8.74	6.38	27.09	9.29	4.35	3.41	12.73	3.61
2003	12.16	10.94	7.81	8.07	28.87	8.02	5.75	3.50	11.93	2.95
2004	13.61	10.41	9.23	6.08	29.12	8.10	4.12	3.43	11.65	4.25
2005	14.48	8.73	9.57	6.19	29.33	7.64	5.21	2.90	12.63	3.31
2006	15.23	8.82	8.49	6.60	29.00	7.11	3.73	2.85	13.38	4.80
2007	16.54	7.58	7.69	6.22	31.47	7.12	3.95	3.23	12.35	3.85
2008	12.93	6.93	8.90	5.96	30.58	6.58	7.28	3.52	13.56	3.77
2009	13.79	4.25	8.15	5.58	32.49	8.35	3.85	4.27	15.59	3.69
2010	15.15	4.86	6.73	4.60	32.82	8.05	6.04	2.82	15.28	3.64
2011	15.61	4.54	5.55	5.10	33.40	7.44	6.56	3.80	14.73	3.26
2012	14.07	5.79	7.33	5.07	33.10	8.94	3.57	4.76	13.74	3.64

(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
2000	15.36	10.46	5.11	6.23	25.56	7.33	5.42	5.16	14.82	4.56
2001	14.42	8.87	5.34	6.65	26.60	9.09	4.27	5.36	15.18	4.21
2002	15.78	8.49	5.14	6.36	25.63	8.13	5.04	5.62	15.05	4.76
2003	12.73	8.87	5.35	7.13	25.37	9.05	5.58	4.95	15.86	5.12
2004	13.62	8.65	6.58	6.93	24.30	8.72	4.97	4.80	16.13	5.29
2005	13.03	8.15	6.45	6.97	26.14	8.64	5.00	5.16	15.21	5.25
2006	13.27	7.19	6.67	7.29	25.93	8.51	4.79	4.94	15.95	5.46
2007	12.34	7.40	6.68	7.39	25.46	8.64	5.14	4.93	15.62	6.40
2008	12.83	6.64	5.50	7.35	26.63	9.19	5.99	4.68	14.56	6.63
2009	13.28	5.63	4.85	6.63	27.11	8.89	6.21	5.02	16.08	6.29
2010	12.79	5.72	4.82	7.01	26.41	8.99	6.07	5.56	16.63	6.01
2011	13.30	5.30	5.27	6.82	26.41	8.61	6.08	5.38	16.27	6.55
2012	12.18	6.15	4.20	6.90	26.26	8.93	5.73	5.13	17.84	6.67

(d) Men

	Primary activities	Low-tech industry	High-tech industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2000	22.63	8.87	7.39	8.67	25.08	9.62	4.80	4.78	7.56	0.59
2001	22.01	7.88	7.11	9.76	23.27	11.99	3.86	5.11	8.29	0.72
2002	24.11	7.09	7.05	9.10	23.37	11.28	4.11	5.32	7.83	0.75
2003	20.11	8.10	6.92	10.42	24.39	11.67	4.95	4.80	8.03	0.61
2004	21.55	7.76	8.74	9.55	23.53	10.85	4.29	4.43	8.45	0.86
2005	20.81	6.94	8.58	9.86	24.44	10.94	4.76	5.01	7.79	0.87
2006	21.64	6.46	8.19	10.48	25.08	11.25	4.12	4.26	7.84	0.67
2007	21.10	6.57	7.88	10.38	25.32	11.25	4.18	4.64	7.60	1.07
2008	20.37	6.14	7.80	10.11	25.25	11.83	5.85	4.40	7.35	0.91
2009	21.66	5.05	6.86	9.32	27.03	11.96	5.26	4.51	7.64	0.72
2010	21.63	5.23	6.70	9.74	25.84	12.28	5.09	5.12	7.72	0.64
2011	22.12	4.47	6.61	9.78	26.08	11.72	5.73	4.20	8.31	0.99
2012	20.82	5.33	5.99	10.04	25.88	12.40	5.17	4.95	8.56	0.86

(e) Women

	Primary activities	Low-tech industry	High-tech industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2000	2.59	15.15	3.16	0.35	29.25	2.41	5.88	4.26	25.20	11.76
2001	1.79	11.61	3.39	0.54	33.09	2.38	4.96	4.32	27.05	10.87
2002	2.38	11.35	3.19	0.67	30.59	2.24	6.20	4.60	27.22	11.56
2003	1.68	11.01	3.14	0.63	29.08	2.61	6.70	4.02	28.51	12.63
2004	1.98	10.60	3.28	0.81	28.91	3.41	5.51	4.41	27.97	13.11
2005	3.03	10.05	3.55	0.32	31.36	2.63	5.29	3.90	27.39	12.47
2006	2.11	8.92	4.31	0.44	29.46	1.99	5.12	4.65	29.20	13.79
2007	1.79	8.62	4.40	0.65	29.04	2.44	5.81	4.07	28.30	14.87
2008	2.35	7.20	2.98	0.84	31.24	1.90	6.47	4.25	27.41	15.37
2009	2.13	5.51	2.31	0.39	29.28	1.98	6.69	5.25	31.31	15.15
2010	2.55	5.73	2.18	0.45	30.27	2.23	7.51	4.61	30.64	13.84
2011	2.87	6.07	2.65	0.45	30.36	1.97	7.07	6.21	28.41	13.95
2012	1.89	6.94	2.18	0.29	30.48	2.37	5.74	5.01	30.46	14.65

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

Table 6: Monthly labour earnings at PPP dollars of 2005, 2000–12

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

	All	Gender		Age		Occupational position			Educational level		
		Male	Female	Youth	Adult	Employer	Wage/salaried employee	Self-employed	Low	Medium	High
2000	330.0	361.0	269.1	193.1	370.7	1208.5	303.4	310.6	221.1	244.7	372.3
2001	327.0	356.5	266.8	209.5	363.3	867.7	319.8	284.9	210.8	275.0	377.6
2002	307.6	330.5	261.9	191.6	342.2	1145.8	302.7	250.2	189.4	262.5	349.7
2003	263.1	286.9	215.4	164.9	289.3	816.7	254.7	226.7	150.4	223.0	305.4
2004	217.3	238.0	176.1	139.7	239.7	616.3	203.9	187.7	146.1	186.8	247.5
2005	257.8	274.5	223.6	166.9	282.7	634.5	261.5	212.2	157.1	227.8	305.5
2006	270.2	292.4	228.1	169.6	296.1	674.8	277.8	222.4	157.5	230.2	282.3
2007	258.9	281.9	215.7	171.4	282.8	625.6	263.0	213.9	166.6	215.1	299.7
2008	251.7	270.6	215.0	168.8	276.1	598.9	262.3	204.3	147.1	253.2	267.6
2009	271.3	292.2	230.6	173.8	297.7	622.7	277.3	224.9	169.3	255.9	308.0
2010	261.1	276.5	233.6	164.8	287.5	743.5	268.4	211.5	158.0	266.2	329.3
2011	248.1	266.8	215.4	157.4	274.8	643.2	256.8	210.2	161.2	229.4	270.5
2012	241.8	256.1	217.4	153.6	265.0	542.9	269.4	185.1	163.1	218.7	274.4

(b) By economic sector

	Primary activities	Low-tech industry	High-tech industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2000	221.1	244.7	372.3	456.0	332.8	396.8	641.1	375.0	349.6	100.3
2001	210.8	275.0	377.6	386.1	329.8	378.9	547.4	414.5	363.9	105.9
2002	189.4	262.5	349.7	368.0	334.2	342.7	500.0	388.5	326.5	107.2
2003	150.4	223.0	305.4	307.5	252.4	309.9	506.5	335.9	284.9	98.6
2004	146.1	186.8	247.5	283.4	210.5	272.3	389.8	259.9	221.0	80.1
2005	157.1	227.8	305.5	306.1	243.7	301.9	450.8	314.1	291.9	114.7
2006	157.5	230.2	282.3	316.1	268.7	326.3	543.7	355.0	286.3	117.7
2007	166.6	215.1	299.7	299.4	256.5	320.7	466.1	295.7	272.2	122.0
2008	147.1	253.2	267.6	306.1	253.0	315.3	373.3	353.7	256.2	117.7
2009	169.3	255.9	308.0	322.8	262.6	282.0	555.5	337.2	276.3	130.6
2010	158.0	266.2	329.3	334.7	239.5	321.4	444.1	297.9	272.3	131.8
2011	161.2	229.4	270.5	323.2	237.6	285.4	448.9	258.7	258.3	124.3
2012	163.1	218.7	274.4	263.4	234.1	278.8	439.7	317.0	245.1	124.7

(c) By occupational group

	Manage-ment	Professio-nals	Technicians & associate professional	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades	Plant & machine operators, assemblers	Elementary
2000	1253.5	871.5	418.4	261.5	276.3	227.5	333.9	267.1	171.7
2001	1081.2	842.3	378.1	266.1	278.7	224.3	331.3	293.4	177.5
2002	1226.7	756.9	398.8	257.9	252.4	192.3	302.1	281.5	167.0
2003	1039.3	610.1	335.6	213.3	198.8	153.5	268.4	223.0	143.8
2004	730.1	520.1	273.4	160.7	175.6	149.2	222.5	198.3	120.3
2005	884.8	627.8	339.8	203.9	199.8	163.5	259.7	237.0	144.5
2006	926.7	629.8	363.0	216.6	218.3	157.7	261.1	262.1	145.2
2007	840.5	569.4	346.0	226.2	213.5	157.5	253.9	254.6	151.6
2008	860.4	517.6	353.2	209.8	206.7	147.5	237.4	241.8	143.4
2009	999.5	638.1	366.6	217.9	218.2	175.7	255.9	254.3	152.3
2010	906.8	557.5	363.6	227.8	203.1	159.8	249.7	262.5	152.4
2011	825.2	639.9	314.4	200.2	203.9	156.1	240.5	251.4	148.9
2012	791.1	588.8	286.1	215.5	183.9	167.2	228.4	246.8	147.8

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

Table 7: Hourly wage in main occupation at PPP dollars of 2005, 2000–12

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

	All	Gender		Age		Occupational position			Educational level		
		Male	Female	Youth	Adult	Employer	Wage/salaried employee	Self-employed	Low	Medium	High
2000	3.37	3.50	3.13	2.11	3.73	10.80	2.99	3.44	2.42	2.34	3.40
2001	3.48	3.58	3.27	2.44	3.78	8.02	3.25	3.34	2.33	2.65	3.95
2002	3.26	3.30	3.18	2.21	3.56	10.23	3.08	2.95	2.06	2.64	3.35
2003	2.88	2.97	2.69	1.87	3.12	7.97	2.62	2.79	1.70	2.17	3.00
2004	2.17	2.26	1.99	1.52	2.36	5.15	1.97	2.09	1.48	1.74	2.41
2005	2.62	2.67	2.52	1.77	2.82	5.95	2.36	2.59	1.80	2.04	2.70
2006	2.63	2.71	2.46	1.80	2.82	6.37	2.37	2.61	1.74	1.94	2.54
2007	2.55	2.66	2.33	1.85	2.72	5.61	2.30	2.55	1.81	1.85	2.65
2008	2.56	2.61	2.47	1.79	2.78	5.92	2.29	2.58	1.63	2.08	2.42
2009	2.69	2.76	2.57	1.82	2.91	6.18	2.37	2.69	1.76	2.21	2.84
2010	2.72	2.74	2.69	1.92	2.93	7.39	2.40	2.68	1.77	2.37	2.99
2011	2.60	2.72	2.39	1.77	2.82	6.23	2.33	2.65	1.80	2.35	2.65
2012	2.50	2.57	2.37	1.77	2.66	5.45	2.44	2.35	1.85	1.91	2.69

(b) By economic sector

	Primary activities	Low-tech industry	High-tech industry	Construction	Commerce	Utilities & transportation	Skilled services	Public administration	Education & Health	Domestic workers
2000	2.42	2.34	3.40	4.44	3.33	3.84	6.51	3.29	4.19	1.27
2001	2.33	2.65	3.95	4.15	3.53	3.61	5.94	4.14	4.19	1.23
2002	2.06	2.64	3.35	3.79	3.44	3.24	5.77	3.95	3.93	1.29
2003	1.70	2.17	3.00	3.54	2.76	3.13	5.71	3.60	3.33	1.23
2004	1.48	1.74	2.41	2.81	2.07	2.63	3.75	2.38	2.48	0.94
2005	1.80	2.04	2.70	3.03	2.54	2.84	4.78	2.77	3.19	1.23
2006	1.74	1.94	2.54	2.93	2.52	3.17	5.40	2.98	3.15	1.18
2007	1.81	1.85	2.65	3.11	2.48	2.94	4.40	2.74	2.94	1.41
2008	1.63	2.08	2.42	2.96	2.47	2.94	4.60	3.09	3.07	1.18
2009	1.76	2.21	2.84	3.30	2.67	2.65	5.05	2.99	3.12	1.13
2010	1.77	2.37	2.99	3.39	2.52	3.23	4.49	3.16	3.12	1.28
2011	1.80	2.35	2.65	3.57	2.48	2.79	4.62	2.70	2.83	1.14
2012	1.85	1.91	2.69	2.94	2.32	2.64	4.19	2.92	2.98	1.32

(c) By occupational group

	Manage-ment	Professio-nals	Technicians & associate professionals	Clerical	Service & sales workers	Agricultural, forestry & fishery workers	Craft & related trades	Plant & machine operators, assemblers	Elementary
2000	11.24	8.87	4.69	2.91	2.82	2.45	3.34	2.54	1.90
2001	10.27	8.57	4.45	2.99	2.89	2.40	3.58	2.79	2.23
2002	11.49	7.80	4.78	2.97	2.75	2.09	3.18	2.67	1.91
2003	9.91	6.62	4.12	2.39	2.21	1.74	2.96	2.13	1.78
2004	6.02	5.00	3.01	1.70	1.78	1.48	2.30	1.85	1.35
2005	7.74	6.19	3.52	2.01	2.11	1.87	2.76	2.21	1.58
2006	6.94	5.94	3.75	2.13	2.20	1.75	2.61	2.33	1.61
2007	6.59	5.40	3.27	2.17	2.22	1.75	2.70	2.24	1.68
2008	7.16	5.53	3.71	2.17	2.25	1.60	2.40	2.20	1.58
2009	9.10	6.11	3.73	2.02	2.25	1.80	2.71	2.29	1.62
2010	7.80	5.76	3.68	2.46	2.31	1.84	2.58	2.55	1.73
2011	7.40	6.21	3.29	2.15	2.22	1.83	2.78	2.39	1.63
2012	7.17	5.54	3.37	2.12	1.95	1.94	2.48	2.34	1.64

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, 2000–12

	Low	Medium	High
2000	55.72	28.03	16.25
2001	56.49	28.34	15.17
2002	54.71	28.73	16.55
2003	52.69	29.67	17.64
2004	52.96	29.66	17.37
2005	53.14	30.49	16.37
2006	51.36	31.70	16.94
2007	49.62	33.16	17.22
2008	49.22	31.42	19.36
2009	49.04	32.16	18.80
2010	47.86	33.60	18.54
2011	46.79	35.95	17.25
2012	45.44	35.97	18.60

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

Table 9: Unemployment rate by educational levels: population 15 years old or more, 2000–12

	Low	Medium	High
2000	3.43	6.96	5.27
2001	4.26	7.74	5.87
2002	3.25	5.73	4.16
2003	3.64	6.93	5.33
2004	3.21	5.67	4.78
2005	3.25	6.44	3.45
2006	2.15	5.72	4.24
2007	2.21	4.64	3.28
2008	1.24	3.06	2.57
2009	2.83	5.31	4.03
2010	2.20	4.42	3.23
2011	2.97	5.16	4.04
2012	3.54	6.97	4.32

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