THE CHANGING PICTURE OF INEQUALITY IN LATIN AMERICA
EVIDENCE FOR THREE DECADES

MARCH 2021

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Abstract

This paper characterizes patterns and changes in economic inequality in Latin America for the period 1992-2018, based on harmonized microdata from around 350 national household surveys of all the countries in the region. After a decade of some improvements, there are signs of deceleration and even stagnation on the road toward reducing disparities in income and other variables. Inequality remains a top social concern in Latin America.

JEL Code: D63, I31, J11, J21, J31, J82, N36
Keywords: inequality, income, distribution, Latin America
1. Introduction

Inequality is one of the most distinctive characteristics of Latin American economies. It is also one of the main social and policy concerns. This paper builds on the understanding of this phenomenon by documenting the main patterns and trends of inequality in income and other relevant variables such as earnings, education, housing and access to basic services.

The paper, primarily based on evidence from national household surveys, is essentially descriptive. By providing an extensive and updated assessment of the level, changes to and characteristics of economic inequality in the region, it hopes to contribute to the larger debate on the determinants of inequality and its policy implications.

Most of the evidence in this paper is obtained by processing microdata from national household surveys, which are part of the Socioeconomic Database for Latin America and the Caribbean (SEDLAC), a joint project between the Center for Distributive, Labor, and Social Studies at Universidad Nacional de La Plata (CEDLAS) and the World Bank. Household surveys are not uniform across Latin America, and in most cases not even within countries over time, making comparability a great concern. Owing to this, the paper makes all possible efforts to make statistics comparable across countries and over time by using similar definitions for variables in each country/year, and by applying consistent data processing methods.

National household surveys (NHS) have several problems and limitations. Yet, they are still the best source of information for socio-economic statistics at the country level. NHS allow the population of each Latin American nation to be characterized by socioeconomic groups and when they are properly harmonized, they can be used to construct summary indicators for the whole region. The available data allow social variables to be tracked over increasingly longer time periods. In fact, most of the graphs and tables in this report show the evolution of social indicators in the region over three decades (1992 to 2018). These series were constructed by combining the answers to nationally representative household surveys from almost 30 million Latin Americans in 18 countries.

The paper is mainly focused on within-country inequality, so welfare disparities are measured among individuals living within national boundaries. Although globalization is increasingly raising global inequality concerns, inequality remains mainly a national matter. Because of this, this paper mostly documents unweighted statistics of inequality measures across countries, a practice that is consistent with the typical cross-country approach in the development literature. Weighting by population would produce a regional inequality assessment strongly affected by highly-populated countries, such as Brazil and Mexico, and would overlook the situation in less-populated nations, such as Uruguay or Nicaragua. Although data are occasionally presented by country, for simplicity most of the analysis is focused on patterns of inequality for the whole region.

The rest of this background paper is organized as follows. Section 2 describes the data sources and documents the main patterns of income inequality in Latin America over the last decades. Section 3 places the region in the international context. How unequal is Latin America compared to the rest of the world? How has inequality evolved in the region compared to other regions? Section 4 reviews the literature and provides some exploratory results that try to shed some light on the main factors that could account for the fall in income inequality in the 2000s and its deceleration in the 2010s. Section 5 is devoted to the analysis of inequality in education, providing updated statistics on several dimensions—years of education, schooling rates, public education attendance—and some results on education quality and
segregation. Section 6 turns to housing and characterizes different income groups in terms of homeownership, dwelling size and access to various basic services: water, sanitation and electricity. Finally, section 7 deals with an important aspect of inequality: gender gaps. It presents statistics by gender of the different margins and outcomes of the labor market: the decision to participate, hours worked and wages. The paper concludes in section 8 with a summary of the main findings and some final remarks.

2. Income inequality

There are three distinctive approaches in the current distributive analysis. Each one has its own traditions and is supported by alternative data sources: (i) the functional distribution, (ii) the top incomes approach and (iii) the personal (size) distribution of income. The first focuses on inequality between different factors of production, especially between capital and labor. The typical measure of inequality is the share of labor in national income, measured by national accounts. The second approach focuses on the share of income earned by the richest (regardless of the source of that income). The most widespread measure of inequality is the share of national income earned by the richest (e.g., the top 1%), computed from administrative data, typically tax records. The third approach measures disparities among the entire population from all sources of income, by drawing on data from household surveys. Typically, the degree of inequality is measured with summary indicators. The most popular is the Gini coefficient.

This paper follows the third approach for two reasons: (i) it is conceptually more ambitious than the others and should, in theory, encompass the other two, and (ii) there are insufficient data to properly characterize patterns and trends of inequality in the region using the first two approaches.

Estimating measures of personal income inequality using microdata drawn from national household surveys has some serious limitations. First, household surveys are different across countries, which affects the comparability of the results. In particular, official inequality indicators from individual countries should not be used to construct regional measures, since these countries define and calculate the income variable very differently. Therefore, this paper relies on statistics from SEDLAC, a joint project between CEDLAS and the World Bank, aimed at harmonizing distributive, labor and social indicators in the region SEDLAC (2020).¹

Second, and more importantly, national household surveys struggle to capture capital income and very rich households.² This fact calls for the use of other data sources, such as tax records, to complement the picture of inequality drawn from household surveys. Unfortunately, evidence on top incomes from administrative sources is still very limited in the developing world, including Latin America.³ Therefore, this paper continues to estimate income

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¹ Constructing mean values of variables for the region requires a balanced panel with observations for each country/year. When that is not possible, typically because there is not a household survey in a given country for a given year, the mean is calculated using two basic rules: (i) a missing intermediate year is filled by applying a simple linear projections between adjacent years (e.g. if the Gini for 2003 is missing, it is estimated as the simple mean of the values for 2002 and 2004), and (ii) the value of a final (or initial) missing year is estimated using changes in data from the rest of the countries (e.g. estimate the value 2018 for a given country with the changes for the rest of the countries in Latin America with data for 2017 and 2018).

² See Meyer et al. (2015) and Lustig (2020) as examples of an increasing body of literature on this issue.

³ Alvaredo and Gasparini (2015).
inequality using microdata from national household surveys. This method does reasonably well at measuring inequalities arising from differences in labor incomes, monetary transfers and household demographics, but not those coming from capital income. In that sense, the indicators shown in this paper surely underestimate the real extent of the region’s economic inequalities. For simplicity, in what follows we refer to our indicators as estimates of “income inequality”, although the caveat just discussed should always be kept in mind.

2.1. Income inequality trends

In recent decades, income inequality levels have changed significantly in all the economies of the region. The pattern has been clear: increase in the 1990s, sustained reduction in the 2000s and slowdown or stagnation in the 2010s. Figure 2.1 documents this pattern. The average Gini coefficient for Latin American economies grew from 50.5 in 1992 to 52.8 in 2002. The increase in inequality in the 1990s was widespread, although not universal; in a few Latin American economies, inequality fell or remained steady (e.g. Mexico, Nicaragua). The trend was more homogeneous in the 2000s: with the exception of Costa Rica, inequality fell in all Latin American countries, in many at a sustained rate. The average Gini coefficient fell from 52.8 to 47.0 between 2002 and 2012. The reduction has been remarkable enough that some refer to this period as the “golden decade”: a decade of stability, economic growth and reduced income inequality. That pattern seems to have changed in recent years. The evidence suggests a clear slowdown in the reduction of inequality: in the six-year period between 2012 and 2018, the average Gini fell less than 1 point.

Figure 2.1. Income inequality in Latin America. Gini coefficient, 1992-2018

Source: Own calculations based on data from SEDLAC (CEDLAS and The World Bank).
Note: Unweighted mean of the national Gini coefficients for the distribution of the household per capita income distribution. All Latin American countries, except El Salvador and Guatemala.

4 The figure shows the unweighted average of the Gini coefficients in all Latin American countries, with the exception of Guatemala and El Salvador, which are excluded due to data problems. In Guatemala, household surveys are very sporadic, while in El Salvador the indicators reveal a very strong and unlikely fall in inequality, which would have turned that country into the least unequal in the region in just a decade.

5 ECLAC (2018) records similar changes: a sharp decline in the regional average Gini from 52.7 to 47.3 between 2002 and 2012, and a subsequent deceleration (46.7 in 2016).
Table 2.1 illustrates the differences among the three periods. Whereas in the 2000s, the Gini coefficient fell on average 0.58 points a year, in the 2010s the pace of reduction slowed down (0.11). On average, the Gini for the region has been nearly stagnant since 2014.

Table 2.1. Income inequality in Latin America. Annual changes in the Gini coefficient by region

<table>
<thead>
<tr>
<th>Period</th>
<th>Latin America</th>
<th>Southern South America</th>
<th>Andean countries</th>
<th>Central America &amp; Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-2002</td>
<td>0.23</td>
<td>0.35</td>
<td>0.42</td>
<td>-0.04</td>
</tr>
<tr>
<td>2002-2012</td>
<td>-0.58</td>
<td>-0.71</td>
<td>-0.80</td>
<td>-0.29</td>
</tr>
<tr>
<td>2012-2018</td>
<td>-0.11</td>
<td>0.04</td>
<td>-0.30</td>
<td>-0.07</td>
</tr>
</tbody>
</table>

Source: Own calculations based on data from SEDLAC (CEDLAS and The World Bank).
Note: Unweighted mean of national Gini coefficients for household per capita income distribution. All Latin American countries except El Salvador and Guatemala. Southern South America: Argentina, Brazil, Chile, Paraguay and Uruguay. Andean countries: Bolivia, Colombia, Ecuador, Peru and Venezuela. Central America: Costa Rica, Dominican Republic, Honduras, Nicaragua and Panama.

It is interesting to note the regional differences in the distributive patterns. The slowdown in inequality reduction is most evident in the extended Southern Cone (Argentina, Brazil, Chile, Paraguay, Uruguay): the Gini dropped 0.71 points per year in the 2000s and increased 0.04 per year in the 2010s. The slowdown also occurred in the Andean countries and in Central America and Mexico, although to a lesser extent (Figure 2.2).

Figure 2.2. Income inequality in Latin America. Gini coefficient by region, 1992-2018

Table 2.2 reports the annual changes in the Gini coefficient by country. In most of them the pattern is similar: increase in the 1990s, substantial fall in the 2000s and deceleration in the 2010s. However, there are exceptions: (i) in some countries, inequality remained steady or even fell in the 1990s (Chile, Dominican Republic, Mexico, Nicaragua), (ii) inequality in Costa Rica did not fall in the 2000s, and (iii) and some countries saw no deceleration in the 2010s (Colombia, Costa Rica, Honduras and Panama). In fact, heterogeneity across countries was larger in this latter period, particularly compared to the similar patterns experienced by all countries in the 2000s.6

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6 The coefficient of variation of the annual changes in inequality was -2.25 in the 2010s compared to just -0.58 in the 2000s.
Table 2.2. Income inequality in Latin America. Annual changes in Gini coefficient by country

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Southern South America</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>0.79</td>
<td>-0.98</td>
<td>-0.01</td>
<td>-0.07</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.07</td>
<td>-0.56</td>
<td>0.21</td>
<td>-0.14</td>
</tr>
<tr>
<td>Chile</td>
<td>-0.02</td>
<td>-0.55</td>
<td>-0.06</td>
<td>-0.23</td>
</tr>
<tr>
<td>Paraguay</td>
<td>0.50</td>
<td>-0.91</td>
<td>0.12</td>
<td>-0.13</td>
</tr>
<tr>
<td>Uruguay</td>
<td>0.41</td>
<td>-0.55</td>
<td>-0.07</td>
<td>-0.07</td>
</tr>
<tr>
<td><strong>Andean countries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bolivia</td>
<td>0.57</td>
<td>-1.27</td>
<td>-0.42</td>
<td>-0.37</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.20</td>
<td>-0.39</td>
<td>-0.39</td>
<td>-0.17</td>
</tr>
<tr>
<td>Ecuador</td>
<td>0.40</td>
<td>-0.66</td>
<td>-0.11</td>
<td>-0.13</td>
</tr>
<tr>
<td>Peru</td>
<td>0.34</td>
<td>-0.97</td>
<td>-0.27</td>
<td>-0.30</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.61</td>
<td>-0.71</td>
<td>-0.29</td>
<td>-0.11</td>
</tr>
<tr>
<td><strong>Central America &amp; Mexico</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costa Rica</td>
<td>0.27</td>
<td>0.15</td>
<td>-0.11</td>
<td>0.14</td>
</tr>
<tr>
<td>Honduras</td>
<td>0.21</td>
<td>-0.29</td>
<td>-0.32</td>
<td>-0.10</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>-0.46</td>
<td>-0.66</td>
<td>0.45</td>
<td>-0.32</td>
</tr>
<tr>
<td>Panama</td>
<td>0.06</td>
<td>-0.38</td>
<td>-0.42</td>
<td>-0.22</td>
</tr>
<tr>
<td>Mexico</td>
<td>-0.25</td>
<td>-0.14</td>
<td>-0.11</td>
<td>-0.18</td>
</tr>
<tr>
<td>Dominican R.</td>
<td>-0.05</td>
<td>-0.43</td>
<td>0.12</td>
<td>-0.16</td>
</tr>
<tr>
<td><strong>Latin America</strong></td>
<td>0.23</td>
<td>-0.58</td>
<td>-0.11</td>
<td>-0.16</td>
</tr>
</tbody>
</table>

Source: Own calculations based on data from SEDLAC (CEDLAS and The World Bank).
Note: Missing years in a given country are estimated using adjacent years or data from other countries (see footnote 1).

The trends for Latin America as a whole are similar when considering population-weighted indicators (Figure 2.3). However, because patterns in Brazil and Mexico (the two largest countries) differ from the rest of the region, there are two main differences worth mentioning: (i) the increase in inequality in the 1990s was less intense and ended earlier when measured with the weighted-Gini and (ii) the weighted-Gini has been increasing since 2015 (instead of remaining flat).
Source: Own calculations based on data from SEDLAC (CEDLAS and The World Bank).
Note: All Latin American countries, except El Salvador and Guatemala.

The patterns documented so far stand up to various methodological decisions, including the consideration of various inequality indices and income measures. For instance, SEDLAC (2020) reports measures of inequality computed over the distribution of equivalized household income and labor monetary per capita income, among other income concepts. All main results hold.

The analysis along the income distribution suggests similar results. Figure 2.4 shows the income ratio of deciles 10 and 1, percentiles 90 and 1 and percentiles 95 and 5, along with the income share of the top decile. In all cases the gap widened in the 1990s, shrank substantially in the 2000s, and shrank at a slower pace in the 2010s, with signs of plateauing in recent years.

It is interesting to inspect changes in income shares along the distribution (Table 2.3). The 1990s were characterized by large gains in decile 10, small gains in decile 9, and similar losses along the rest of the distribution. The dynamics change abruptly in the 2000s: there were gains in the middle and at the bottom of the income distribution, and a substantial reduction in the income share of the top decile. That pattern continues in the 2010s, although the speed slowed substantially. Gains were especially reduced in the middle.
**Figure 2.4.** Income inequality in Latin America. Alternative indicators

![Graph showing income inequality in Latin America with alternative indicators.](image)

Source: Own calculations based on data from SEDLAC (CEDLAS and The World Bank).

Note: Unweighted mean of the national Gini coefficients for the distribution of the household per capita income distribution. All Latin American countries, except El Salvador and Guatemala.

**Table 2.3.** Inequality in Latin America. Annual changes in the income decile shares, unweighted means

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-2002</td>
<td>-0.01</td>
<td>-0.02</td>
<td>-0.03</td>
<td>-0.03</td>
<td>-0.03</td>
<td>-0.02</td>
<td>-0.02</td>
<td>-0.03</td>
<td>0.01</td>
<td>0.17</td>
</tr>
<tr>
<td>2002-2012</td>
<td>0.04</td>
<td>0.06</td>
<td>0.07</td>
<td>0.08</td>
<td>0.08</td>
<td>0.08</td>
<td>0.08</td>
<td>0.06</td>
<td>0.01</td>
<td>-0.55</td>
</tr>
<tr>
<td>2012-2018</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.02</td>
<td>0.02</td>
<td>0.00</td>
<td>-0.23</td>
<td></td>
</tr>
</tbody>
</table>

Source: Own calculations based on data from SEDLAC (CEDLAS and The World Bank).
Unfortunately, Caribbean countries still have a weak system of national household surveys. As a consequence, inequality results are scarce, mostly outdated and difficult to compare and monitor over time. Governments and international organizations have made efforts, but the Caribbean is still far from Latin America in terms of the scope and reliability of statistical information.

The figure in this box shows the latest Gini coefficients in several Caribbean countries drawn from government reports. The figure is illustrative of the wide dispersion of inequality levels in the region, but given the comparability problems, it cannot be taken at face value.

The Caribbean is a very heterogeneous region in many dimensions, including inequality. It includes some of the most unequal countries in the world, such as Haiti, and countries where inequality is moderate, such as Guyana or Belize.

**Figure B2.1. Inequality in the Caribbean. Gini coefficients – Late 2000s/early 2010s**

Some countries have more than one inequality data point, but for many of them, the comparability over time is dubious. For instance, according to estimates summarized in a report from the Caribbean Development Bank (2016), the Gini in Barbados skyrocketed from 30 to 47 between 1997 and 2000, whereas the Gini in Saint Vincent and the Grenadines plummeted from 56 to 40 between 1995 and 2008. Such large changes are unlikely and are probably the result of methodological issues rather than a reflection of a changing reality.

Source: Caribbean Development Bank (2016) and official reports.
Box 2.2: Poverty

Poverty is not the topic of this report. However, poverty is a top social concern, with strong connections to inequality. Income poverty can be measured in Latin America with microdata from national household surveys. The figure below shows the authors’ own estimates of the income poverty headcount ratio using the line of US$5.5 per person per day at 2011 PPP. Unlike inequality, income poverty went down throughout most of the 1990s (except during the Tequila Crisis) in the context of moderate economic growth. The poverty headcount ratio for all Latin American countries fell from 47.2% in 1992 to 41.4% in 1998. At the turn of the century many economies suffered crises and recessions while others continued growing; therefore poverty patterns diverged. On average they compensated each other: poverty was roughly constant between 1998 and 2002. A decade of strong economic growth started around 2003. During this episode nearly all Latin American countries experienced significant reductions in poverty and inequality. The overall poverty headcount ratio fell from 42% in 2003 to 23.8% a decade later, a fall made even more remarkable considering the international financial crisis of the late 2000s. Most countries experienced a slowdown in economic growth in the 2010s and some even suffered recessions, Venezuela being the most salient case. Against this backdrop, the reduction in inequality slowed and income poverty in the region stopped falling. Income poverty in 2018 was basically at the same level as in 2013. Preliminary evidence suggests that poverty remained at that level in 2019. Of course, the global pandemic in 2020 is modifying the situation substantially, but the data to assess its impact are not yet available.

Figure B2.2. Poverty headcount ratio (line US$5.5) and Gini coefficient

Source: Own calculations based on microdata from SEDLAC (CEDLAS and The World Bank).
Another point from Table 2.3 is worth stressing: changes have been rather small. For instance, even in the 2000s, a decade recognized for increased equality, the income share of the bottom decile increased just 0.04 points a year. That means that it went from 1.1% in 2002 to 1.5% in 2012. The share of the bottom six deciles went from 22.4% in 2002 to 26.5% over a decade. Of course, if these changes continued over a long period of time, they would bring about very significant economic changes. But they are now milder or have even stopped altogether. Changes in the last 15 years were significant, yet insufficient to transform the basic characteristics of Latin American income distributions.

2.2. Income polarization

Given a relevant characteristic (such as income level, race, religion or educational level), the population is polarized to the extent that (i) there are groups whose members share a characteristic and identify with the group and (ii) feel differentiated from members of other groups. For instance, a completely polarized society would be one in which there were just two groups: the rich and the poor. Each group is internally homogeneous and isolated from the other. Polarization and inequality are both concerned with the differences between individuals, but polarization adds an aspect that inequality ignores: the similarity between certain people may involve the formation of a group consciousness that leads to tension and conflict with other internally-homogenous groups. In fact, some argue that polarization, more than inequality, is the key social feature that triggers a climate of social tension.\footnote{The concept of polarization has its roots in sociology and political science, with Karl Marx being the first to study it. In economics, its formal analysis originated in the 1990s with the works of Esteban and Ray (1994), Foster and Wolfson (1992) and Wolfson (1994).}

Table 2.4 shows the mean values (across Latin American countries) of the annual changes of some of the main income polarization measures. The results are similar to those for inequality: increased polarization in the 1990s, fall in the 2000s and deceleration in the 2010s (see also Figure 2.5). Polarization measures present a picture that is not significantly different from the one shown by inequality indicators.

<table>
<thead>
<tr>
<th></th>
<th>DER 0.25</th>
<th>DER 0.50</th>
<th>DER 0.75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wolfson</td>
<td>0.0026</td>
<td>0.0010</td>
<td>0.0032</td>
</tr>
<tr>
<td>EGR (2)</td>
<td>-0.0073</td>
<td>-0.0031</td>
<td>-0.0035</td>
</tr>
<tr>
<td>EGR (3)</td>
<td>-0.0033</td>
<td>-0.0011</td>
<td>-0.0036</td>
</tr>
<tr>
<td>DER</td>
<td>0.0009</td>
<td>0.0005</td>
<td>0.0001</td>
</tr>
<tr>
<td></td>
<td>-0.0035</td>
<td>-0.0031</td>
<td>-0.0033</td>
</tr>
<tr>
<td></td>
<td>-0.0019</td>
<td>-0.0015</td>
<td>-0.0013</td>
</tr>
</tbody>
</table>

Source: Own calculations based on data from SEDLAC (CEDLAS and The World Bank).
Note: EGR = Esteban-Gradin-Ray; DER = Duclos-Esteban-Ray.
Figure 2.5. Income polarization in Latin America

Source: Own calculations based on data from SEDLAC (CEDLAS and The World Bank).
Note: EGR = Esteban-Gradin-Ray; DER = Duclos-Esteban-Ray.

3. Latin America in the World*

This section considers inequality in Latin America from an international perspective. After a brief review of the data sources, it compares inequality levels in Latin America and the rest of the world, and then turns to changes in recent decades to compare patterns in other regions to the ones described for Latin America in the previous section.

3.1. Data

The empirical evidence in this section is drawn from the latest version of PovcalNet, a large database from the World Bank that includes distributive data based on national household surveys for 163 countries from 1981 to 2017. The vast majority of these surveys are processed by teams at the World Bank itself or by other institutions that follow protocols agreed upon with the Bank. One of the main advantages of using PovcalNet for this section of the report is that most indicators for Latin America are computed using our own harmonized national household surveys (SEDLAC).

PovcalNet is a very valuable database, but some adjustments are required before using the indicators. Whereas PovcalNet reports statistics based on the distribution of consumption per capita for the majority of countries, inequality is computed over the income distribution in several countries in Latin America and a few in Eastern Europe. In these cases, we follow the same procedure as in Alvaredo and Gasparini (2015), who adjusted the distributive in-
3.2. Inequality levels

We assess the levels of inequality in the developing world by comparing the Gini coefficient on the distribution of household per capita consumption of a large group of countries (134) using data from PovcalNet. Figure 3.1 shows the inequality ladder of the developing world.

Figure 3.1. Gini coefficients on the distribution of household consumption per capita. Developing countries, circa 2017

Ukraine has the lowest Gini coefficient (25), while South Africa lies at the other extreme of the ladder. The mean value for this sample of developing countries is 38.4, whereas the median is a little lower: 37.9. Only three Latin American countries have a Gini below the world median: Uruguay, Argentina and Peru. The rest are above the median, but no Latin American country ranks in the top ten. Brazil, the most unequal Latin American country according to PovcalNet, ranks 119th out of 134 economies.¹¹

Latin America is usually considered the most unequal region in the world. The results in Table 3.1 suggest that this assessment might not be accurate: the mean and median Gini coefficients in Sub-Saharan Africa and in the few Caribbean countries included in PovcalNet are higher than in Latin America. In any case Latin America certainly remains one of the most unequal regions in the world. On average, the Gini coefficient for the distribution of consumption per capita is 3 points higher than in East Asia, and more than 8 points higher than in Eastern Europe and Central Asia. Figure 3.2 is another illustration of the relative high levels of inequality in Latin American countries.

¹° Specifically, an adjustment coefficient of 0.861 in Latin America and 0.931 in Eastern Europe and Central Asia was applied.

Table 3.1. Gini coefficients on the distribution of household consumption per capita by region. Developing countries, circa 2017

<table>
<thead>
<tr>
<th>Region</th>
<th>Mean</th>
<th>Median</th>
<th>Coef. Var.</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia and Pacific</td>
<td>37.1</td>
<td>37.6</td>
<td>0.079</td>
<td>28.6</td>
<td>41.8</td>
</tr>
<tr>
<td>Eastern Europe and Central Asia</td>
<td>31.4</td>
<td>30.8</td>
<td>0.145</td>
<td>25.0</td>
<td>41.9</td>
</tr>
<tr>
<td>Latin America</td>
<td>39.9</td>
<td>40.3</td>
<td>0.086</td>
<td>32.7</td>
<td>45.9</td>
</tr>
<tr>
<td>Caribbean</td>
<td>44.3</td>
<td>45.5</td>
<td>0.138</td>
<td>34.7</td>
<td>52.3</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>34.5</td>
<td>33.7</td>
<td>0.124</td>
<td>27.6</td>
<td>41.6</td>
</tr>
<tr>
<td>South Asia</td>
<td>35.7</td>
<td>35.7</td>
<td>0.082</td>
<td>32.4</td>
<td>39.8</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>43.0</td>
<td>42.7</td>
<td>0.178</td>
<td>30.8</td>
<td>63.0</td>
</tr>
<tr>
<td>Developing countries</td>
<td>38.4</td>
<td>37.9</td>
<td>0.185</td>
<td>25.0</td>
<td>63.0</td>
</tr>
</tbody>
</table>

Source: Bracco et al. (2021).

Figure 3.2. Gini coefficients on the distribution of household consumption per capita by region. Developing countries, circa 2017

The assessment holds when controlling for the level of development. In a regression of the Gini coefficients on gross national income and its square, the dummy for Latin America (when the omitted category is Eastern Europe and Central Asia) is 8.3 in the samples with and without developed countries. This positive, significant and economically large coefficient is usually interpreted in the literature as a sign of “Latin American excess inequality”: the region has higher income inequality than expected for its degree of development.

Bracco et al. (2021) classify countries in four groups according to their consumption Ginis. Most Latin American countries are included in the high-inequality group, whereas some be-
long to the mid-inequality group. There are no Latin American countries in the very-high inequality group (Ginis above 50) or in the low-inequality group (below 30). Nearly all very high-inequality countries are in sub-Saharan Africa, while the high group mostly includes countries from sub-Saharan Africa and Latin America.

**Table 3.2.** Classification of countries by level of inequality and by region. Developing countries, 2017

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>East Asia and Pacific</td>
<td>0</td>
<td>3</td>
<td>15</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Eastern Europe and Central Asia</td>
<td>0</td>
<td>2</td>
<td>12</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td>Latin America</td>
<td>0</td>
<td>10</td>
<td>12</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td>Caribbean</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>South Asia</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>8</td>
<td>21</td>
<td>16</td>
<td>0</td>
<td>45</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9</td>
<td>41</td>
<td>69</td>
<td>16</td>
<td>135</td>
</tr>
</tbody>
</table>

Source: Bracco et al. (2021).

### 3.3. Trends

The strong reduction in inequality in Latin America during the 2000s is often considered an exceptionality. The regional trend contrasts with rich economies and some large countries such as China, where inequality has been soaring. However, observed inequality trends in Latin America do not seem “exceptional” when compared to the rest of the developing world. In fact, the changes have been similar in most countries: increase in the 1990s, fall in the 2000s, slowdown and stagnation in the 2010s. Inequality fell significantly in almost 65% of the developing world in the 2000s. In contrast, only one third experienced declines in the 2010s.

Although the pattern is similar across regions, there are significant heterogeneities in the magnitude of the changes. In particular, inequality in Latin America in the 2000s fell significantly more than in the rest of the world: 6.3 Gini points compared to 3.4 (Figure 3.3). It should also be noted that the increase in inequality in previous years was more marked in Latin America: between 1996 and 2002, the Gini increased in Latin America almost twice as much as it increased in the developing world.
The comparison with the rest of the world has at least two important implications. First, the similar patterns suggest the relevance of global phenomena. The rise in commodity prices and the expansion of the world economy are two potential explanatory determinants of distributive changes. Second, the more intense drop in inequality in Latin America in the 2000s requires some additional idiosyncratic explanation.

### 4. Accounting for the Inequality Changes

This section provides some fragmentary non-causal evidence that can be useful for understanding the patterns of income inequality in Latin America.

#### 4.1. Some exploratory analysis: decompositions

In the search for a credible history of distributive dynamics in Latin America, a branch of literature has focused on quantifying the contribution of some direct factors—labor income, monetary transfers, other non-labor income and demographic factors—to changes in inequality through various decomposition methodologies.

Azevedo et al. (2013a) follow the non-parametric decomposition methodology developed by Barros et al. (2006) to determine whether the fall in income inequality in Latin America in the 2000s was the result of changes in demographic indicators, labor income (hourly wages) or non-labor income (public transfers, pensions and capital income). The authors find that for 10 out of the 14 countries included in the study, the most important factor was the relatively strong growth of the labor income of workers in the lowest part of the distribution and, in particular, an increase in the hourly wage. On average, 54% of the reduction in the Gini coefficient can be attributed to changes in hourly labor income. Changes in public transfers were responsible for an average of 21%, while changes in pensions contributed 9%. A parametric decomposition (provided by CEDLAS) following the methodology of Lerman and Yitzaki (1985) shows similar results. During the 2000s, changes in labor income contributed on average 62% of the reduction in inequality in the region, while transfers and pensions were responsible for 17% and 2%, respectively.
Figure 4.1. Decomposition of inequality changes

![Decomposition of inequality changes graph]

Source: Azevedo et al. (2013) based on data from SEDLAC (CEDLAS and The World Bank).
Note. “Adult population” refers to the share of people older than 15 in the total population. “Occupation share” refers to the proportion of adults who are employed.

In an analysis of Argentina, Brazil, Colombia, Mexico and Peru that follows the methodology proposed by Inchauste and Sanfelice (2013), Tornarolli et al. (2018) find that the countries share two results: (i) the main factor behind the fall in income inequality between 2002 and 2014 was the evolution of labor income, and (ii) public transfer programs helped reduce income inequality (Table 4.1).

Table 4.1. Decomposition of inequality changes

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</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>53.0</td>
<td>58.2%</td>
<td>6.7%</td>
<td>5.3%</td>
<td>14.2%</td>
<td>0.2%</td>
<td>0.1%</td>
<td>15.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>58.2</td>
<td>61.7%</td>
<td>3.2%</td>
<td>-8.7%</td>
<td>18.4%</td>
<td>1.7%</td>
<td>-0.3%</td>
<td>23.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td>58.1</td>
<td>-3.7%</td>
<td>64.0%</td>
<td>11.9%</td>
<td>-11.2%</td>
<td>-4.1%</td>
<td></td>
<td>43.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>51.0</td>
<td>134.9%</td>
<td>-56.6%</td>
<td>-50.1%</td>
<td>-4.1%</td>
<td>-20.5%</td>
<td>96.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>54.0</td>
<td>41.5%</td>
<td>29.9%</td>
<td>-11.7%</td>
<td>8.1%</td>
<td>-0.8%</td>
<td></td>
<td>18.2%</td>
<td>14.8%</td>
<td></td>
</tr>
</tbody>
</table>

Bertranou and Maurizio (2011) use data for Argentina, Brazil, Chile and Mexico, and decompose the Gini coefficient of family per capita income using the methodology proposed by Lerman and Yitzhaki (1995). In all cases, labor income is the main reason for the reduction of income inequality. The results also show that the expansion of public transfers in Brazil (Bolsa Familia) and Mexico (Oportunidades) played an important role in the fall of the Gini coefficient. Interestingly, transfers were also important in Chile, likely due to the relatively small role of labor income. The decline in inequality is also explained by the expansion of social security and pension benefits. The relative impact is mostly associated with expansion of coverage, particularly of non-contributory and semi-contributory pensions.

Table 4.2. Decomposition of inequality changes

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Labour income</td>
<td>73%</td>
<td>62%</td>
<td>44%</td>
<td>60%</td>
</tr>
<tr>
<td>Registered wage earning jobs</td>
<td>43%</td>
<td>34%</td>
<td>33%</td>
<td>18%</td>
</tr>
<tr>
<td>Non-registered wage earning jobs</td>
<td>13%</td>
<td>6%</td>
<td>12%</td>
<td>71%</td>
</tr>
<tr>
<td>Non-wage earning jobs</td>
<td>17%</td>
<td>22%</td>
<td>-2%</td>
<td>-29%</td>
</tr>
<tr>
<td>Pensions</td>
<td>24%</td>
<td>14%</td>
<td>26%</td>
<td>1%</td>
</tr>
<tr>
<td>Public cash transfers</td>
<td>-5%</td>
<td>20%</td>
<td>28%</td>
<td>26%</td>
</tr>
<tr>
<td>Other non-labour incomes</td>
<td>8%</td>
<td>4%</td>
<td>3%</td>
<td>13%</td>
</tr>
<tr>
<td>Gini coefficient for PCFI</td>
<td>0.542 → 0.441</td>
<td>0.600 → 0.548</td>
<td>0.571 → 0.533</td>
<td>0.537 → 0.517</td>
</tr>
<tr>
<td>% Labour income / Total family monetary income</td>
<td>71%</td>
<td>71%</td>
<td>71%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Source: Bertranou and Maurizio (2011).

Alejo et al. (2014) find similar results in their analysis of changes in income inequality in the 2000s in Argentina, Brazil, Chile and Uruguay. The results suggest that non-labor income made a significant, although not decisive, contribution to changes in inequality and that these changes were mainly explained by the equalizing effect of public transfers. Changes in non-labor income and its impact on inequality were strongly associated with the implementation or expansion of non-contributory transfer programs in the 2000s.

Soares and Soares (2011) decompose the Gini coefficient of household per capita income to assess the role of transfer programs in the evolution of inequality in Brazil, Chile and Mexico. They find that income transfers played an important role in reducing inequalities in Brazil and Mexico. In both countries, only labor income was more important than transfers in reducing the Gini coefficient. Accounting for less than 1% of total income, transfer programs were responsible for 21% of the reduction in inequality in these two countries. In Chile, the transfer program Chile Solidario accounted for 15% of the drop in inequality.

Lustig et al. (2016) review other studies and conclude that there are two main explanations for the fall in inequality in the 2000s: a reduction in inequality of hourly labor income and more robust and progressive public transfers. This conclusion, shared by all studies, motivates the next two sections on the labor market (section 4.2) and social spending (section 4.3).
4.2. The labor market

In order to explore inequality in the labor market, this section briefly documents the patterns of labor variables by skill group. Labor market gaps between skilled and unskilled workers are key to understanding labor inequality and hence total inequality (Acosta et al., 2019, among others). In fact, much of the literature (in Latin America and elsewhere) has focused on skill gaps, in particular on the wage gap by education group. In this section, the adult prime-age population (25-64) is divided into three groups: low education (less than 9 years), medium education (9 to 13 years) and high education (more than 13 years).

The most basic variable at the extensive margin is whether or not to participate in the labor market. Figure 4.2 shows the unweighted mean of the labor force participation (LFP) rate in Latin America for adults aged 25-64. There are large gaps in LFP by education, particularly for women (see section 7). In 2018, LFP for the unskilled was 72.5% and for the skilled 86.7%. This gap fell substantially over the last quarter century, from 20.6 points in 1992 to 14.2 points in more recent years. The gap narrowed faster in the 1990s, slower in the 2000s, and accelerated again in the 2010s.

Figure 4.2. Labor force participation by education groups. Latin America, unweighted average, adults aged 25-64

Employment rates (share of adult population employed) slowly increased from 57% in 1992 to 61% in 2018. The increase was more noticeable in the 2000s. Employment has been stagnant in the 2010s. There are large gaps in employment rates between education groups: 83% employment among the skilled and 70% among the unskilled. However, this gap has been shrinking over time. It was 19 points in 1992, 16 in 2002, 14 in 2012 and is currently around 13.

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).
Unemployment rates have varied over the business cycle: increasing in the 1990s, falling in the 2000s and remaining rather stable in the 2010s. They follow a similar pattern to inequality. Reduced unemployment typically contributes to reduced inequality through two channels: directly, by increasing the income of unemployed people and indirectly, by putting upward pressures on wages, particularly for unskilled workers. After a sharp increase in the 1990s, unemployment in Latin America peaked in 2002, then began to fall steadily as a result of economic expansion. This fall stopped towards the end of the decade (interrupted by the jump in unemployment in 2009 due to the international financial crisis), presumably for two reasons: the slowdown in growth and the arrival at a natural unemployment rate, a point at which further reductions in unemployment become difficult, even in a scenario of economic growth. Unemployment has been increasing in the region since 2014.

On average, unemployment rates in the region are not substantially different between skilled and unskilled workers (Figure 4.5). Rates are somewhat higher for the semi-skilled. This re-
sult applies for Latin America as a whole, but not for all countries. In more urban countries, unemployment among the unskilled is higher (e.g. Argentina, Brazil, Costa Rica and Uruguay). In others, where rural activities or self-employment are more widespread, unemployment among the unskilled is lower (Bolivia, Colombia, Ecuador and most of Central America).

Although average unemployment among the skilled and unskilled is similar, the gap varied over time. In the 1990s, a decade of structural reforms and low growth, unemployment among the unskilled was higher. In the 2000s, when reforms ended and the economy boomed, unemployment among the unskilled was lower.

**Figure 4.5.** Unemployment rates by education groups. Latin America, unweighted average, adults aged 25-64

![Unemployment rates by education groups](image)

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).

Interestingly, the fall in hours worked was more intense for the unskilled, which has contributed to the increase in earnings inequality. Over the last decades, hours worked fell at a rate of 0.18 hours a year for the unskilled. The reduction was smaller for the semi-skilled (0.10 hours a year), and almost negligible for the skilled (0.04 hours a year). As a consequence, the gap in hours worked has changed significantly: whereas in the early 1990s a typical unskilled adult in Latin America worked 2.3 hours more per week than their skilled counterpart, in the late 2010s they worked around 1.3 hours less (Figure 4.6).

As discussed above, the evidence suggests that the evolution of the wage gap between skill groups is a central factor behind the changes in income inequality. Figure 4.7 presents some basic unconditional indicators. The average wage gap between skilled and unskilled workers in 17 Latin American economies expanded in the 1990s, narrowed in the 2000s, and remained basically constant in the 2010s. This pattern, similar to total income inequality in section 2, highlights the importance of understanding wage dynamics.

The changes in the gap between skilled and semi-skilled workers are similar, but of lesser magnitude. Finally, the gap between semi-skilled and unskilled workers has been narrowing (slightly), which may be linked to the loss of productivity among semi-skilled workers, who are more likely to be replaced by automation (the polarization hypothesis).
Figure 4.6. Hours worked. Latin America, unweighted average, adult workers (25-64). Gap between skill groups.

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).

Figure 4.7. Wage gaps. Latin America, unweighted average, adult workers (25-64). Unconditional wage gaps between skill groups

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).

Figure 4.8 follows Acosta et al. (2019) and computes conditional wage gaps. Skilled workers are defined as those with some tertiary education (either complete or not complete), while unskilled workers are those with a high school diploma or lower educational attainment. The skill premiums, in turn, correspond to weighted averages of the coefficient for each educational category (primary, secondary, and tertiary, each then divided into complete and incomplete) in a Mincer regression for each country and year in the sample. The weights are determined by the share of employment of individuals with a given educational level.

The authors are very grateful to Matias Ciaschi for efficient research assistance on this issue.
during a base period (See Appendix). The results from Figure 4.8 are in line with the previous analysis: on average the gap between skilled and unskilled labor in Latin America widened in the 1990s, significantly shrank in the 2000s and shrank at a slower pace in the 2010s.

**Figure 4.8.** Conditional wage gaps by skill. Latin America, unweighted average, adult workers (25-64)

The benefits of having a job include not only its wage, but also benefits associated with employment, including a right to social security, labor rights and health insurance. Formal and informal jobs are usually differentiated based on whether or not these benefits are included.

Although precisely measuring labor informality is complex, data from household surveys can provide an approximation. In almost every country in the region, surveys ask salaried workers about their right to receive a pension once they retire. Figure 4.9 presents an unweighted average of the labor informality rate in Latin America based on the answers to this type of question. It is important to stress that the rate refers only to salaried workers. Gasparini and Tornarolli (2009) show that including self-employed workers increases the level of informality but does not significantly alter the trends. Figure 4.9 shows the usual pattern: informality increased in the 1990s, decreased in the 2000s, and slowed or even stagnated in the 2010s.

**Figure 4.9.** Informality. Latin America, unweighted average, share of informal salaried workers

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).
Changes in informality have been similar across skill groups, but have occurred at different speeds. The informality gap between skilled and unskilled workers widened in the 1990s and subsequently narrowed, but at a slow pace (Figure 4.10). As in the case of wage gaps, the informality gap between unskilled and semi-skilled workers is narrowing. However, the gap is still wide: around 18 points.

**Figure 4.10.** Informality. Latin America, unweighted average, adult workers (25-64). Gap in informality rates of salaried workers between skill groups

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).

In summary, there are large inequalities in the labor market that are key to understanding total inequality. In particular, the gaps between skilled and unskilled workers remain substantial in all dimensions: labor force participation, employment, hours worked, wages and labor benefits. Although there have been some modest improvements over the last three decades, the evidence suggests that the move toward lower dispersion in labor market outcomes has been slowing down in recent years: (i) increases in labor force participation and employment among (mainly female) unskilled workers have decelerated since the mid-2000s, (ii) the gap in hours worked continues to grow, (iii) the reduction in wage gaps has slowed substantially, and (iv) gaps in formality rates are falling very slowly and are still at levels higher than in the early 1990s.

The paper now turns to the second factor identified in section 4.1 as a key to understanding patterns of income inequality in the region: social spending.
The wage gaps between workers in different areas have significantly varied in the region over time. The evidence indicates that the urban/rural wage gap, traditionally high in Latin America, narrowed sharply in the 2000s, and remained rather constant in the 2010s. The urban/rural ratio in labor income grew from 1.78 to 1.83 in the 1990s, narrowed to 1.58 in the 2000s, and remained at that level towards the end of 2010s. An important factor to understand this pattern is the increase in the terms of trade in the 2000s that favored rural activities, which in many Latin American countries are more intensive in unskilled labor.*

**Figure B4.1. Urban-rural gaps. Latin America-unweighted means**


* Pellandra (2015), for example, exploits wage variations in local labor markets in Chile and finds that commodity price shocks favored unskilled workers relatively more than the rest.

### 4.3. Social spending

The growth rate of social spending in Latin America has varied over time: it grew 3.4% per year between 1993 and 2003, accelerated to 6.4% between 2003 and 2012, and then fell to 3.5% in the 2010s (Figure 4.11).

This pattern in social spending closely follows the pattern of real tax revenues, which largely responds to the pace of economic activity and international prices (ECLAC, 2018). Many argue that the sharp increase in social spending in the 2000s was mainly the result of windfalls in tax revenues linked to commodity prices, rather than fiscal reforms (e.g. Jiménez and López Azcúnaga, 2015). Although the greater availability of tax resources associated with the economic cycle may have been the most relevant factor, Gasparini (2019) stresses four additional factors:
Political will. In almost all countries in the region, there was political will to use the additional funds from the expansion phase of the cycle to increase public spending, and in particular social spending. The share of social spending in total public spending (and in GDP) increased significantly in the 2000s (ECLAC, 2018). The reasons are controversial. Some link them to the rise of center-left governments (Cornia, 2014). Based on a panel of income shares by deciles before and after transfers, Milanovic (2019) finds that a shift to the left in the political orientation of the national legislature (not the executive branch) is associated with greater redistributive intensity through income transfers in Latin America. Others argue that the increase in social spending was widespread, independent of political orientations, and linked to the greater availability of resources and heightened social demands after a decade of little progress and increasing inequality (McLeod and Lustig, 2011). Finally, some argue that the victories of the new left generated fear in governments with other political orientations and forced them to adapt their fiscal and redistributive behavior (Bogliacino and Rojas Lozano, 2017).

Evasion. While GDP growth explains most of the revenue increase in the 2000s, a fraction came from improved tax administration and significantly reduced tax evasion, supported by new technologies that facilitated compliance with tax obligations and government oversight (ECLAC, 2018).

Tax progressivity. Latin American countries have typically based their tax systems on regressive or low-progressive collection instruments (taxes on consumption, labor and foreign trade), which limits the redistributive potential of fiscal policy and, in some cases, exacerbates market income disparities. However, income and property taxes have been slowly making up a greater share of revenue and regressive exemptions have been reduced, giving the system a somewhat higher redistributive impact (more on that below).

Structure of social spending. One of the fundamental innovations in social policy in the 2000s was the introduction or expansion of massive cash transfer programs (see next section), which increased the progressivity of social spending.

Figure 4.11. Public social spending

The fiscal factor of inequality reduction seems to have lost strength recently. Social spending has slowed down (measured in constant prices and as a percentage of GDP), limited by a more unfavorable general economic context. Lower international prices reduce tax collection on natural resources, and some countries face difficulties increasing taxes from already-high levels. Additionally, social spending as a proportion of total spending seems to have plateaued. ECLAC (2018) reports that it stagnated after rising from 53% to 66% between 1997 and 2007.
4.4. Monetary transfers

During the 2000s, countries in Latin America expanded their social protection systems; conditional cash transfer programs in particular were widespread. An initial wave of programs was aimed at vulnerable groups with children; later, many countries implemented social pension programs for their elderly population outside the formal social protection system. These programs had a considerable redistributive impact for three reasons: (i) they led to a significant increase in social spending; (ii) they were highly targeted programs, concentrating benefits among the vulnerable population much more than the average for social spending; and (iii) cash transfers are included in income inequality statistics, unlike transfers in kind (e.g. housing, food, education), which are not regularly included because they are hard to valueate.

Figure 4.12. Beneficiaries of conditional cash transfer programs

Source: Gasparini (2019) based on ECLAC “Database of non-contributory social protection programs.” Note: Households = sum of beneficiary households (in millions). Index = simple average among countries of a national household number index with average = 100. Countries included: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru and Uruguay.

Figure 4.12 reveals both the sharp increase in coverage of conditional income transfer programs in the region in the 2000s and its subsequent deceleration. The reasons for this contrast are varied. Once a large part of the poor population is covered, expansions in coverage are necessarily limited. In addition, at some point it becomes difficult to increase the real value of the benefit, since it can threaten the fiscal budget constraint, and generate fears about potential negative effects on the labor market (Levy, 2008). For these reasons, after an initial expansion, it is natural for the size of these programs to plateau and, therefore, their distributional impact stagnates (Cord et al. 2014; Gasparini et al., 2016).

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13 Other labor/social policies for income transfers were also expanded, especially temporary employment programs and formal employment subsidies. Families also received a flow of money transfers from the growing volume of international remittances in the 2000s. That volume slowed down in the following decade, partly as a result of the international financial crisis.

14 Soares et al. (2011), for instance, find that conditional cash transfer programs account for between 15% and 21% of the reduction in inequality in Brazil, Mexico and Chile.
4.5. Fiscal incidence

Inequality in market income can be affected through the combination of taxes and social spending. To what extent is fiscal policy effective at reducing income inequality in Latin America? The question is difficult to answer since taxes and programs have general equilibrium implications that are almost impossible to estimate. Most of the literature applies a basic fiscal incidence analysis that ignores behavioral or general equilibrium effects; it is therefore a first-order approximation of the average incidence of fiscal interventions. Researchers, institutions such as ECLAC and the Inter-American Development Bank (IDB), and, more recently, the Commitment to Equity Project (CEQ) helped build evidence on the distributive incidence of fiscal policy in the region.

In a widely-cited paper, Goñi et al. (2011) estimate the impact of taxes and transfers on income distribution in six Latin American countries in comparison to Western Europe at the beginning of the 2000s. While fiscal policy in Europe reduces the Gini coefficient by 10 points, its effect is substantially smaller in Latin America—around 1 point (Figure 4.13).

Figure 4.13. Reduction in Gini after fiscal policy

![Figure 4.13: Reduction in Gini after fiscal policy](image)

Source: Own calculations based on Goñi et al. (2011).

Hanni et al. (2015) focus the analysis on taxes and monetary transfers. They find that this subset of fiscal policy has an equalizing impact on income distribution in Latin America, but that it is substantially lower than in Europe and other countries in the Organisation for Economic Co-operation and Development (OECD). They report levels of pre-fiscal inequality—computed over market income—that are similar across regions (50.6 in Latin America and 47.0 in the OECD). But fiscal policy in Latin America has a dramatically lower redistributive impact. It reduces the Gini coefficient by just 3 points (to 47.6) in Latin America, but by 17 points (to 30.0) in the OECD (Figure 4.14). In Latin America on average, 61% of the reduction in the Gini coefficient comes from cash transfers (including pensions) and the rest corresponds to income tax and social security contributions.

15 The analysis is not just a mechanic accounting exercise, since it implies considering assumptions on the economic incidence of taxes and programs, rather than computing the statutory incidence.
ECLAC (2014) concludes that while taxes and transfers in Latin America reduce the Gini coefficient by 6%, the reduction in OECD countries is much larger: 35% (Figure 4.15). The studies highlight the fact that several rich countries have market inequality levels similar to Latin American countries (France, Greece, Ireland, Israel, Italy, Portugal, Spain, the UK and the US); fiscal policy is what makes these economies more equal.

In another large study of most Latin American economies, Hanni et al. (2014) find that the effectiveness of fiscal policy instruments at reducing inequality is very heterogeneous across countries (Figure 4.16). However, a central feature is common to all: social spending, in particular on education and health, is responsible for the largest drop in inequality. On average, the public provision of education and health services leads to a 6-point reduction in the Gini coefficient; income tax and social security contributions (payroll taxes), 1.2; cash transfers, 0.6; and public pensions, 1.4.

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16 It should be stressed that the inequality comparison between developed countries and developing countries involves some complications. In particular, the treatment of pensions is a problem. Contributory pensions are mostly deferred income, but also have some component of government transfer. However, in a typical incidence study, public pensions are removed from incomes recorded in the household survey to get market income. Hence, pre-fiscal (market) inequality is more upward biased in countries where pensions are more widespread, such as in rich countries.
Figure 4.15. Gini coefficients before and after fiscal policy

Source: ECLAC (2014).

Figure 4.16. Reduction in Gini coefficient by fiscal policy circa 2011

Source: Hanni et al. (2014).
In a recent study, Arancibia et al. (2019) apply tax-benefit microsimulation models developed within the structure of EUROMOD to analyze the effect of taxes and benefits on the income distribution of six Latin American countries (Argentina, Bolivia, Colombia, Ecuador, Uruguay, and Venezuela). They find estimates of the redistributive incidence of fiscal policy roughly similar to those in the previous literature, which uses a more basic incidence approach. The Gini fell 9.4 points in Uruguay, 8.2 points in Argentina and just 2.4 points in Bolivia and Colombia. Bargain et al. (2017) also use tax-benefit microsimulation models to analyze the impact of fiscal policy in Colombia and Ecuador. They find that the Ecuadorian system is more redistributive than the Colombian system.

The Commitment to Equity Project has made several relevant contributions to the measurement and analysis of the distributive incidence of fiscal policy in Latin America using a common methodology. Lustig (2017) finds that tax-benefit systems enhance equality, but that the redistributive impact greatly differs across countries; whereas Argentina, Brazil, Costa Rica, and Uruguay are the most redistributive, Bolivia and Colombia have some of the least redistributive tax-benefit systems. The redistributive effect is mostly driven by direct taxes and cash transfers (Figure 4.17).

**Figure 4.17.** Reduction in Gini coefficient by fiscal policy

![Figure 4.17](image)


ECLAC (2018) highlights the difference between Europe and other OECD countries, where the personal income tax contributes 17 Gini points to the reduction in inequality. The difference lies in the low importance of personal income taxes in Latin America: revenues from this tax are just 1.4% of GDP in Latin America, compared to 8.4% in the OECD and 10% in the
European Union. Figure 4.18, adapted from Gomez Sabaini and Rossignolo (2014), stresses the difference in the tax structures of Latin American and OECD countries. The substantially lower reliance on high-progressivity taxes, such as the personal income tax, is a key finding of the comparison.

Another important reason for the difference is the much lower tax burden in Latin America, which in turn implies a lower level of public spending and social programs. As discussed above, not only is the tax burden lower, but the tax structure is biased toward less progressive or even regressive indirect taxes.

Figure 4.18. Tax structure in Latin America, OECD and EU

![Tax structure chart]

Source: Gomez Sabaini and Rossignolo (2014).

5. Inequality in Education

Measuring inequality in education is not a trivial task. At least two methodological issues must be dealt with: which education variable to consider in the analysis, and which indicators to use to measure inequality. Regarding the first issue, this paper follows most of the literature and focuses on years of education of the working-age population. The choice is less clear for the second issue because of the multitude of inequality indicators. The rest of this section analyzes two basic indicators: the Gini coefficient for the distribution of years of education and the gap in years between quintiles 1 and 5 of the income distribution. These two measures illustrate well the variety of possible results, are widely used in the literature, and are relatively easy to communicate compared to other indicators.

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17 Revenues from corporate income tax are about the same in all these regions: approximately 3%.
5.1. Inequality in years of education

Over the last decades, Latin America has experienced a sustained increase in educational attainment. Mean years of formal education for the adult population steadily increased from 6.6 in 1992 to 9.3 in 2018 (Figure 5.1). The rate of growth in years of education was almost exactly the same over time. This is consistent with Acosta et al. (2019), who argue against another common explanation for inequality dynamics in Latin America, based on differential growth changes in the supply of skilled labor over decades.

Education levels increased along the income distribution in every country. Individuals from poor and rich socioeconomic strata are now more educated than individuals in the same groups some decades ago (Figure 5.1).

Figure 5.1. Years of education by income quintile. Latin America, adults (25-64)

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).
Note: All Latin American countries are included.

There is some cross-country heterogeneity in this basic indicator: only a minority of countries has an average of more than 10 years of education for adults in the 25-65 age range, including those in the Southern Cone (Argentina, Chile, Uruguay) and Panama. In contrast, some countries in Central America (El Salvador, Guatemala, Honduras and Nicaragua) have an average under 8 (Figure 5.2).

This paper is more concerned with differences in educational achievements than with trends for the mean. Figure 5.3 shows changes in the gap between the top and the bottom income quintiles. The educational gap widened between the early 1990s and mid 2000s and then shrank to almost the previous level. In any case, the changes have been rather small. The same conclusion applies when comparing the top and middle quintiles. In sum, over the last three decades, there was a widespread and rather uniform rise in educational attainment: the working population is more educated than decades ago, but the gaps have remained almost unchanged.
The situation looks different when considering an alternative (and also widespread) measure of education inequality: the Gini coefficient for the distribution of years of education. According to this indicator, inequality in education has been falling steadily over time (Figure 5.4). The Gini for years of education computed over the adult population (aged 25-64) fell more than 10 points in three decades: from 38.8 in 1992 to 27.8 in 2018.

The contrast with the assessment from the previous indicator lies in the nature of the comparisons—relative or absolute. Suppose that over a certain period of time, there is an increase of three years of education for all the relevant population. Does this change reduce inequality, increase inequality, or have no effect? Relative inequality measures like the Gini coefficient assess this change as inequality-reducing, since the increase in years of education is proportionally more significant for the group with less education. On the other hand, absolute inequality measures, such as the quintile gap, evaluate the change as neutral.
Figure 5.4. Gini coefficient of years of education. Latin America

![Gini coefficient of years of education](image)

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).
Note: All Latin American countries are included.

5.2. Access to education

While the previous section focuses on the educational attainment of the adult population, this section documents the level and distribution of net enrollment rates, defined as the share of individuals in a given age group enrolled in the educational level corresponding to their age. Net enrollment rates have increased for all educational levels over the last three decades (Figures 5.5, 5.7 and 5.9). Educational expansion has not been uniform along the income distribution. For primary education, the quintile gaps have steadily fallen. In particular, the mean Q5-Q1 gap in primary school net enrollment rates shrank from 11.4 to 2.2 points between 1992 and 2018. This is in part driven by the fact that the top quintile has historically been close to the 100 percent ceiling, but schooling rates for the poor have substantially improved as well: the mean net enrollment rate for primary education for the bottom quintile of the income distribution climbed from 85.8% in 1992 to 96.5% in 2018. Not surprisingly, improvements have decelerated as they approach the ceiling: the net enrollment rate for primary school for the poor increased 0.53 points per year in the 1990s, 0.44 in the 2000s and 0.15 in the 2010s.

Figure 5.5. Net enrollment rates, primary school. Latin America

![Net enrollment rates](image)

Source: Own calculations from SEDLAC (CEDLAS and the World Bank).
Figure 5.6. Gap in net enrollment rates between income quintiles, primary school. Latin America

[Graph showing the gap in net enrollment rates between income quintiles, primary school, for the years 1992 to 2018.]

Source: Own calculations from SEDLAC (CEDLAS and the World Bank).

Net enrollment rates also increased for secondary schooling (Figure 5.7). The increase was spectacular: the mean rate climbed from 46.6% in 1992 to 78.6% in 2018—on average more than 1 percentage point a year. The expansion in schooling was very modest for the bottom quintiles in the 1990s, and consequently the gaps widened (Figure 5.8). In contrast, high school attendance among the poor accelerated in the 2000s. The schooling gaps have been narrowing since then. Active educational policies and the inception of massive cash transfer programs conditioned on school attendance surely contributed to this substantial increase in enrollment among the poor. However, convergence has slowed in the 2010s, mainly due to a noticeable deceleration in the enrollment rate of the bottom quintile. The mean rate for Latin America increased a remarkable 2.2 percentage points a year in the 2000s, and almost half that in the 2010s.

Figure 5.7. Net enrollment rates, secondary school. Latin America

[Graph showing net enrollment rates for secondary school, by quintile and year, from 1992 to 2018.]

Source: Own calculations from SEDLAC (CEDLAS and the World Bank).
There has been a sustained increase in enrollment at the tertiary level in Latin America (Figure 5.9). The mean rate for the region grew from 12.3% in 1992 to 30% in 2018. The distributional patterns have significantly varied over time. In the 1990s the increase in enrollment was concentrated in the upper strata of the income distribution. Consequently, the gaps substantially widened: the Q5-Q1 gap climbed from 22.3 percentage points in 1992 to 42.1 points in 2003. In the last two decades, the increase in tertiary level enrollment has become more uniform. In fact, the gap between extreme quintiles in 2018 is almost the same as in 2004, and the Q5-Q3 gap is just 2 points lower (Figure 5.10).

Source: Own calculations from SEDLAC (CEDLAS and the World Bank).
5.3. Public-private education

The following analysis looks at public versus private schooling. Data on the type of school, available in most national household surveys of the region, could be informative on differences in education quality and on school segregation, two relevant topics that will be briefly covered in the next sections.

The proportion of students in public primary schools remained remarkably stable over the period under study. It was estimated at 85.5% in 1992 and at 85.1% in 2015 (it later fell about 1 point). This stability could be misleading, since it is the result of two different phenomena: (i) a strong increase in enrollment of children from poor families, who almost exclusively go to public primary schools (a composition effect), and (ii) a reduction in the propensity to choose public primary schools, especially by households in the upper-middle section of the income distribution (quintiles 3 and 4). Figure 5.11 is illustrative of the second phenomenon, which was especially marked in the 2000s, probably as a consequence of the improved economic situation that allowed an increasing number of upper-middle-income families to afford a private school for their children. As a consequence, the income gaps in public school attendance widened, in particular in the 2000s. Figure 5.12 depicts the typical Q5-Q1 gap as well as the gap between quintiles 1 and 2, and quintiles 3 and 4. This gap went from 9 points in 1992 to 14.6 points in 2018. Most of the increase took place in the 2000s.
In contrast to primary education, the proportion of youths in public secondary school steadily increased, as a consequence of a stronger composition effect and a very small increase in the propensity to attend private secondary schools. The Q5-Q1 gap remained very large, but its growth was limited, while the gap between quintiles 1-2 and 3-4 remained basically unchanged.
Figure 5.13. Proportion of students in public schools by quintile, secondary school. Latin America

Source: Own calculations from SEDLAC (CEDLAS and the World Bank).

Figure 5.14. Gap in proportion of students in public schools between income quintiles, secondary school. Latin America

Source: Own calculations from SEDLAC (CEDLAS and the World Bank).

5.4. Quality

Equal access to education does not guarantee equal educational achievement, since the latter depends on multiple variables, including the quality of the education received, as well as family and personal factors. The number of papers seeking to systematically measure differences in educational quality and achievement between socioeconomic strata is increasing.\(^{18}\)

This section adds some simple calculations to stress that this dimension of inequality also seems to be relatively high in Latin America.

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\(^{18}\) See, for instance, Hanushek (2016).
First, Figure 5.15 is a reminder that the region is lagging behind in education quality, at least when considering measures based on scores from harmonized international tests.

**Figure 5.15.** Mean scores Pisa 2015 by region. Youths 15 years old

![Graph showing mean scores in Maths and Reading by region]

The weaker performance does not apply only to the mean. As Figure 5.16 reveals, the scores in Latin America for the Programme for International Student Assessment (PISA) reading test are lower than in the rest of the world along the whole distribution. The gaps are, in proportionate terms, larger at the bottom. A Latin American student in the 10th percentile obtained a score 7% lower than in the rest of the world, and 19% lower than in the OECD. For someone at the 95th percentile the gaps were 3% and 14%, respectively.

Table 5.1 shows some score ratios between percentiles as simple measures of dispersion. For both measures (ratio 95/5 and 90/10) and both tests (math and reading), the gaps are somewhat larger in Latin America compared to the rest of the world and considerably wider when compared to the OECD.

**Table 5.1.** Dispersion measures in PISA results by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Reading 95/5</th>
<th>Reading 90/10</th>
<th>Math 95/5</th>
<th>Math 90/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>2.14</td>
<td>1.81</td>
<td>2.03</td>
<td>1.73</td>
</tr>
<tr>
<td>OECD</td>
<td>2.04</td>
<td>1.74</td>
<td>1.88</td>
<td>1.63</td>
</tr>
<tr>
<td>Rest of the world</td>
<td>2.09</td>
<td>1.77</td>
<td>2.01</td>
<td>1.72</td>
</tr>
</tbody>
</table>

Source: Own calculations from Programme for International Student Assessment (PISA), round 2018.
5.5. Equality of opportunities in education

If family background determines a child’s education, then social mobility is low. This is a sign of unequal opportunities. This section follows a simple methodology developed in Andersen (2001) to provide estimates of equality in educational opportunities. The dependent variable is the schooling gap, defined as the difference between (i) years of education that a child would have completed had they entered school at a normal age and advanced one grade each year, and (ii) actual years of education completed. In other words, the schooling gap measures years of missing education. The Equality of Opportunity Index (EOI) is defined as 1 minus the proportion of the school gap that is explained by family background. In an economy with unequal opportunities, family background would be important and thus the index would be near zero.\(^\text{19}\)

This simple EOI measure was implemented for all countries and years in Latin America based on microdata from national household surveys. An important caveat should be mentioned: information about family background is only available for youth who live in the same household as their parents. This situation is almost universal for primary school-age children and widespread among high school-age young people, but less common for college-age youth.

Figure 5.17 reveals that the socioeconomic background of parents is a more significant determinant of schooling for college-age youth than for secondary school-age youth.

There were no clear signs of improvement in equality of opportunities in the 1990s, but a different pattern emerges in the 2000s (Figure 5.17). Although the changes are not large, in recent decades the EOI went up in almost all countries in both age groups, especially for the younger cohorts. The increase in equality of opportunity is likely associated with widespread secondary school attendance (and to a lesser extent college) and the reduction in income inequality in Latin America in the 2000s.

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\(^{19}\) Andersen (2011) proposes this index as an indicator of mobility, but it could be better interpreted as an indicator of equality of opportunity in education. In any case, opportunities and mobility are very closely related.
**5.6. Segregation**

The segregation of children from different socioeconomic backgrounds into separate schools may erode the prospect of a more integrated and equal society. Integrated schools may foster returns to education for poor children through peer-group effects, reduce the variance in the distribution of social capital among youth (e.g., labor contacts), and strengthen preferences for redistribution as richer families get to know the needs of poorer households better.

Vázquez (2016) uses data on the socioeconomic status of the students included in the PISA to compute several school segregation indices. Figure 5.18 reproduces the results at the country level for the dissimilarity and the centile gap index (Watson, 2009). Latin American countries are in the upper tail of the graph, indicating a high level of school segregation compared to the rest of the countries in the study. Of course, school segregation may take other forms beyond the public-private division. For instance, rich children may segregate into high-quality public schools located in rich neighborhoods to which poor families have no access.

Arcidiácono et al. (2014) compute a set of school segregation indices for most Latin American countries for the period 1992-2011 based on microdata from national household surveys (SEDLAC). They find a consistent increase in school segregation, regardless of the index used to measure it. Figure 5.19 shows the mean value across 14 Latin American countries of three different segregation indices: the dissimilarity index using the poorest quintile as the minority group, the same index using quintile 5 as the minority group and the centile gap index. In all cases, school segregation has increased in Latin America over time. This increase is widespread, though not present in every country. Despite a robust reduction in income disparities in the 2000s, there is no evidence of a reduction in the degree of school segregation between public and private schools among children from different socioeconomic strata. In fact, the evidence seems to point toward an increase in school segregation, raising concerns about social cohesion in the near future.
Figure 5.18. School segregation by socioeconomic level, 2015

Source: Vázquez (2016).
There are wide differences in the degree of public-private school segregation across Latin America (Figure 5.20). Whereas in the Southern Cone, the dissimilarity index is substantially above the regional mean, in Central America and Mexico the indices are still relatively low.

6. Housing and Basic Services

If credit markets were efficient, the decision to buy or rent a house would not depend on income level. In the real world, and for a variety of reasons, capital markets work imperfectly, generating a positive association between the probability of owning a house and household income.

Household surveys in Latin America have data on whether the family who lives in the house owns that house. Survey questions usually differentiate between ownership of the dwelling and the lot. We construct a variable that takes the value 1 when the household owns both the lot and the dwelling.

Homeownership is widespread across Latin America. There is heterogeneity across countries, regions, and socioeconomic groups, but the values are generally high. Around 69% of Latin American households report that they own the home they live in.
Figure 6.1 shows the proportion of homeowners by income quintiles in several countries of the region. Although the income gradient is positive in most countries, in some the relationship between income and housing property is weak (as in El Salvador) or negative (as in Bolivia). It should be noted that these relationships are unconditional and, consequently, may be affected by other factors. For example, the negative relationship between homeownership and income may be the result of a less developed rental market in rural areas, which are typically the poorest (this is partly the reason for the negative gradient in Bolivia).

**Figure 6.1.** Homeownership by income quintile. Average for Latin America and selected countries

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).

On average, the income gradient is positive but not so steep. The proportion of homeowners is basically flat in the first three quintiles and significantly increases only for the top quintile. The proportion of homeowners in that quintile is just 6 points higher on average (73%) than in the bottom quintile.

However, the gap has been increasing in recent years in the context of a decrease in homeownership since the early 2000s (Figure 6.2). In fact, the fall in homeownership was especially marked among the poorest quintile: almost 6 points (from 72.6% in 2002 to 67% in 2017). The decline among the top quintile was less than 1 point (from 73.5% to 72.6%).

These patterns suggest an increasing gap in homeownership (Figure 6.3). The gap between the top and bottom income quintiles was just 2.5 percentage points in 1992, and reached a value of almost 6 points in 2017. The gap in homeownership between the top and middle income quintiles also grew with similar intensity.

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20 The analysis will be extended with data for 2018 (and 2019 for some countries).
Dwelling size is an indicator of wealth and a possible proxy for poverty. Although the size is not reported in surveys, there are usually data on the number of rooms. We construct a variable that records the number of rooms in the dwelling that are not shared with other households. With no exceptions, the mean number of rooms increases with income, even though richer households usually have fewer members (Figure 6.4).
Figure 6.4. Number of rooms by income quintile. Average for Latin America and selected countries

On average across countries, there were almost no changes in the mean number of rooms over recent decades in Latin America (Figure 6.5). Interestingly, since the 2000s the number of rooms has mildly declined for the top quintile (from 4.8 to 4.5) and increased in the bottom quintile (from 3.1 to 3.4). This increase coincides with the time period when real incomes grew for all of Latin America, especially for the poor. In fact, the increase in the mean number of rooms came to a halt in the 2010s when real incomes stagnated.

Figure 6.5. Number of rooms in the house by income quintile. Latin America

Given these patterns, the gap in the number of rooms in the house has shrunk slightly since the early 2000s (Figure 6.6).
6.1. Water and sanitation

Easy access to a safe source of water is one of the fundamental indicators of development. Most Latin American surveys do not ask about potable water, but instead report the location of the water source. We construct a variable that takes the value 1 if the household has access to a source of water in the house or on the lot.

There was a steady increase in access to water in the region over time: from 75% of households in the early 1990s to almost 90% in the present (Figure 6.7). Naturally, most of the increase took place among poorer households for which access to water had initially been more limited. The share of households in the bottom quintile with water in their dwellings rose from just 55% in the early 1990s to almost 80% in the late 2010s.

Consequently, the gap in water access between income quintiles has shrunk over time, although it remains wide (Figure 6.8). Whereas almost everybody in the top quintile has easy access to water, about 20% of poor households must still seek water outside their homes.
The gaps in access to adequate sanitation are substantially larger than gaps in access to other services such as water or electricity. National household surveys in the region allow computing a variable that captures whether households have a restroom with a toilet connected to a sewer system or to a septic tank. On average in Latin America the proportion of households with adequate sanitation is around 80%. The differences among socioeconomic groups are large. Whereas access to adequate sanitation rises to more than 90% in the top income quintile, it falls to less than 60% in the bottom quintile (Figure 6.9). In some countries the values are much lower: 33% in Mexico, 23% in El Salvador and 22% in Bolivia.

Access to sanitation became more widespread (Figure 6.10). On average the share of households with adequate sanitation climbed from 57% in the early 1990s to almost 80% in the present. The increase was significant, even for the top quintile where coverage is still not universal. The increase was more marked among the poor. In the early 1990s, only 32% of
households in the bottom quintile had toilets connected to the sewerage system or to a septic tank. That share steadily increased over time to almost 60% today.

**Figure 6.10.** Access to sanitation by income quintile. Latin America

Despite these improvements, there is still a long way to go to reach universal coverage, and hence to attain equality in this welfare dimension. The gap between extreme income quintiles has been reduced but remains very wide: 35 points. (Figure 6.11)

**Figure 6.11.** Gap in access to sanitation between income quintiles. Latin America

Most national household surveys in the region measure access to electricity. Access to electricity in the home is widespread in Latin America, although not universal. Around 10% of households in the bottom income quintile do not have electricity. However, this proportion has been substantially reduced over time. In the early 1990s, more than 40% of the households lacked electricity (Figure 6.12).
Since access to electricity has been almost universal among the top quintile, and hence constant, the increase in coverage among the poor implies a steady pattern toward convergence in that basic welfare indicator (Figure 6.13).

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).
Box 6.1 Connectivity gaps

Digital technologies—the internet, computers, mobile phones, and similar devices—are at the core of modern societies. Access to these technologies is increasingly essential for various aspects of economic and social life. The covid-19 pandemic has accelerated the importance of connectivity. Of course, the asymmetries documented in this report in so many dimensions are also present in access to digital technologies. In a recent report for the OECD, Basto-Aguirre et al. (2020) compute the share of households with an internet-connected computer at home using data from the latest national household survey in 12 Latin American countries. They find that only 34% of primary, 41% of secondary and 68% of tertiary education students have access to an internet-connected computer at home. Within each educational level, the heterogeneities are large. Basto-Aguirre et al. (2020) report that less than 14% of poor students (those living on less than US$5.5 per day, PPP 2011) in primary education have a computer connected to the Internet at home vs. more than 80% of affluent students (i.e. those living on more than US$70 per day, PPP 2011).

Figure B6.1. Share of students enrolled in primary education with an internet-connected computer at home by income group. Latin America

Source: Basto-Aguirre et al. (2020) based on OECD Development Centre calculations based on each country’s latest available household surveys. Note: The poor are those living on less than US$5.5 per capita per day (PPP 2011), vulnerable those living on US$5.5 to US$13 per capita per day (PPP 2011), middle-class those living on US$13 to US$70 per capita day (PPP 2011) and affluent those living on more than US$70 per capita per day (PPP 2011).
7. Gender Inequality

This section includes results on a very important dimension of the equity analysis: gender gaps. In particular, it explores the trends in gaps between women and men in Latin American labor markets over the last three decades.

7.1. Labor force participation

The differences between men’s and women’s labor participation is substantial among the low education groups and smaller among those with more education (Figure 7.1). Women with low educational attainment participate in the labor force at 60% of the rate their male counterparts do, compared to 90% for women with high educational attainment.

Figure 7.1. Gender gaps in Labor Force Participation and hours worked. Latin America

![Graph showing gender gaps in labor force participation and hours worked](chart)

Source: Own calculations based on SEDLAC (CEDLAS and the World Bank).

While gender gaps between skilled workers attract a lot of attention, they are more marked among the most vulnerable population (see Table 7.1 at the end of the document). Gaps occur in all groups but are especially wide in groups where women’s labor participation and hours worked are relatively low: married women, women with low educational attainment, women with young children and women with a low-income spouse. This phenomenon is magnified in rural areas.

The gender gap in labor force participation (LFP) has been shrinking in Latin America (Figure 7.2). LFP for men is high and constant over time. LFP among women went from 48% to 65% over the last three decades. This pattern is one of the most remarkable social and labor changes in Latin America (and in the rest of the world).

However, changes in women’s LFP have decelerated since the 2000s. The increase was 0.93 points a year between 1992 and 2002. The rate went down to 0.47 points a year between 2002 and 2012 and to just 0.22 in the 2010s.\(^{21}\)\(^{22}\)

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\(^{21}\) See Gasparini and Marchionni (2015) and Serrano et al. (2019) for a discussion of these patterns.

\(^{22}\) There was a noticeable increase in women’s labor force participation in 2018.
Unlike other variables, there is not a clear distinction across decades in terms of changes in hours worked. The data suggest a slow pattern toward fewer hours worked over time. Whereas a typical Latin American worker spent 45 hours a week on the job in 1992, that value fell to 42 in 2017. The fall was somewhat more intense in the 1990s, but continued over the following two decades. The reduction in hours worked occurred for both genders (Figure 7.3) and for different age groups.

Table 7.2 shows the average wage gaps in Latin American countries by age group, cohort, education, family structure and area. Gender wage gaps are narrower in the young population, which

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This section extends the results of Marchionni et al. (2018) to a larger, updated sample of Latin American countries.
may partially be a cohort effect and partially the result of a long-term reduction in gender differences. The wage differences between men and women do not differ much by educational level. The highest gap is for those with the highest educational level (superior complete). On average in Latin America, the ratio of wages between women and men is 0.825 for that educational group.

The previous results allow just a partial conditional analysis, since they control only for one observable characteristic at a time. The usual methodology to alleviate this weakness consists of running multivariate regressions of the logarithm of the hourly wage against a gender dummy, controlling for the observable factors present in household surveys. The results suggest that in most Latin American countries there is a “wage discount” for women in the labor market. The female dummy in a wage regression appears systematically with a negative sign. Figure 7.4 shows these coefficients together with their confidence intervals for Latin American countries in 2018. The coefficients are negative and statistically significant, with the exception of El Salvador and Honduras. In some cases, the magnitudes are very considerable. For example, in Brazil, the Dominican Republic and Peru, a woman with the same observable characteristics as a man earns an hourly salary that is around 25% lower.

Figure 7.4. Coefficient of woman dummy in wage regressions. Latin America, 2018

Source: Own calculations based on Marchionni et al. (2018).
Note: The dependent variable in the regressions is the logarithm of the hourly wage; therefore, the figure shows the percentage reductions in hourly wages attributable to the gender dummy. The point estimate and the 95% confidence interval for each country are shown.

7.3. The gaps over time

Unconditional gender wage gaps have been narrowing over time in Latin America. Several studies document a slow but persistent reduction in the unconditional gap, and a smaller decrease in the conditional gap (Duryea et al. 2007; Nopo et al., 2010; ECLAC, 2016). Figure 7.5 shows the average for Latin American countries. The unconditional wage ratio between women and men has gradually increased in recent decades. Whereas in 1992 a typical Latin American woman earned 80% of a male worker’s hourly wage, in 2018 that proportion was already at 91%. Similar increases occurred throughout the period under study.
Figure 7.5. Unconditional wage gaps. Wage ratio women/men. Mean for Latin America, 1992-2018

Source: Own calculations based on microdata from household surveys.

The evidence that emerges from a conditional analysis is less optimistic. Figure 7.6 shows the average for Latin America of the female dummy coefficients in Mincer’s wage equations. While there have been some advances, they appear to have stalled a decade ago. On average, the female dummy dropped (in absolute terms) from -0.23 in the early 1990s to -0.15 in the early 2000s, a floor that could not be crossed in subsequent years.

The stagnation of the conditional gap is not inconsistent with the reduction of the unconditional gap. The relative advancement of women in certain areas, particularly education, has generated a composition effect that has helped close the global gap, despite the lack of significant improvements within each group during the last decade.

The data also suggest that the stagnation is more pronounced among the less educated group (Figure 7.7). This evidence should be considered as another warning about the stagnation of progress in gender equality among the most vulnerable.

Figure 7.6. Conditional wage gaps. Coefficient of a woman dummy in wage regressions. Mean for Latin America, 1992-2018

Source: Own calculations based on microdata from household surveys. Wage ratio women/men in brackets.

Some studies find a decrease in the wage gap between men and women between the early 1990s and today, controlling for observable characteristics (see ECLAC, 2016). Although this study also finds reductions in gender wage gaps over that period, year-to-year monitoring allows us to identify a recent stagnation.
Figure 7.7. Conditional wage gaps. Coefficient of a woman dummy in wage regressions. Mean for Latin America, 1992-2018

8. Concluding remarks

This paper characterizes patterns and changes in economic inequality in Latin America for the period 1992-2018, based on harmonized microdata from a large set of national household surveys from all the countries in the region. After a decade of some improvements, there are signs of deceleration and even stagnation on the road toward reducing disparities in income and other variables. Inequality remains a top social concern in Latin America.

Income inequality has significantly changed in all the economies of the region over the last decades. The pattern has been clear: an increase in the 1990s, a strong reduction over the 2000s and a slowdown or even stagnation in the 2010s.

Although changes have been remarkable in some periods (most notably in the early-mid 2000s), they were clearly insufficient to transform the basic characteristics of Latin American income distributions. The region remains among the most unequal in the world, along with sub-Saharan Africa. Latin America has significantly higher income inequality than its degree of development would predict.
Although sometimes considered “exceptional”, the inequality patterns in Latin America were not very different from those in many countries in the developing world, which suggests the relevance of global phenomena for understanding distributive dynamics in the region. They also require some additional idiosyncratic explanation, as the inequality drop in Latin America was more intense than in the rest of the world.

The literature has stressed two important driving factors for the observed patterns in inequality: asymmetric changes in earnings and changes in fiscal policy—particularly cash transfers. Although there have been some improvements over the last three decades, the evidence suggests that changes toward lower dispersion in labor market outcomes have been slowing down in recent years: (i) increases in labor force participation and employment among (mainly female) unskilled workers have decelerated since the mid-2000s, (ii) the gap in hours worked continues to grow, (iii) the reduction in wage gaps has substantially slowed, and (iv) gaps in formality rates are falling very slowly and are still at levels higher than in the early 1990s. Also, the fiscal factor seems to have lost strength recently. Social spending has slowed down, limited by a more unfavorable general economic context and difficulty of expanding the social safety net once high coverage has been attained.

The paper extends the inequality analysis to other variables beyond income: education, housing and basic services. In all countries, there was a widespread and rather uniform rise in educational attainment: the gaps have remained almost unchanged. Instead, gaps in net enrollment rates have fallen at all educational levels. That reduction has been less impressive in the 2010s, even at the secondary and tertiary levels where enrollment rates are still far from 100%.

The paper stresses two additional concerns regarding education and inequality: (i) the wide differences in education quality, larger than in other regions of the world, and (ii) increasing levels of public-private school segregation, which raises concerns over the degree of social cohesion in the near future.

The gap in housing ownership has been widening in the context of a decreasing pattern in ownership since the early 2000s. In contrast, the gaps in access to basic services have shrunk, due to a combination of already high levels in the upper income strata and sustained investment in infrastructure in basic services (water, sanitation, electricity). However, some of the gaps remain wide: whereas almost everybody in the top quintile has easy access to water, about 20% of poor households in Latin America must still seek water outside their homes.

Finally, the paper takes a brief look at a very important dimension of the equality analysis: gender gaps. It explores trends in gaps between women and men in Latin American labor markets over the last three decades. There have been some remarkable improvements in terms of female labor force participation and the gender wage gap. However, some worrying facts cannot be overlooked. Changes in female labor force participation have decelerated since the 2000s, and the conditional gender wage gap has stagnated in the last decade. Both patterns are especially significant among the less educated group, which raises concerns about the stagnation of progress in gender equality among the most vulnerable.

In sum, the patterns of economic inequality in Latin America over the last decades can be summarized with three simple conclusions: there were improvements; they were not enough; they have slowed.
At the time of writing, a new and unexpected shock has hit world economies: the covid-19 crisis. The literature estimating the impact of the health crisis and mitigation measures on employment, wages, inequality and poverty is growing at a rapid pace.\(^1\) Overwhelmingly, the literature finds marked asymmetric effects.

Estimates for Latin America are still scarce. Bonavida and Gasparini (2020) estimate an increase in income inequality of around 2 Gini points as a result of the crisis in Argentina. According to recently released official data from INDEC, Argentina’s National Institute of Statistics and Census, the income ratio between the top and bottom decile climbed from 22.7 to 25.2 between the first and second quarter of 2020, an unprecedented jump in just three months. Lustig et al. (2020) also estimate an asymmetric impact of the crisis in Argentina, Brazil, Colombia and Mexico, even when considering the government alleviation measures.\(^2\) Bottan et al. (2020), Busso et al. (2020) and ECLAC (2020) find asymmetric effects as well.

Although a more comprehensive assessment of the impact of the crisis will only be possible when governments start to publish data collected in 2020, all estimations and projections suggest the covid-19 pandemic will have a large impact on economic inequality.

\(^1\) See Adams-Prassl et al. (2020b), Béland et al. (2020) and Coibion et al. (2020).

\(^2\) Interestingly, they find that the losses are greatest in the middle (roughly) of the ex ante distribution rather than among the poorest. They claim that “this is because the social assistance policies put in place in most Latin American countries over the past 25 years put a ‘floor’ under the incomes of the poorest” (Lustig et al. 2020).
References


Lustig, N., Martínez Pabón, V., Sanz, F., and Younger, S.D. (2020). The Impact of covid-19 Lockdowns and
Expanded Social Assistance on Inequality, Poverty and Mobility in Argentina, Brazil, Colombia and Mexico. *Center for Economic Policy Research (CEPR) covid Economics: Vetted and Real-Time Papers*, 46, July.


Pellandera, A. (2015). The Commodity Price Boom and Regional Workers in Chile: a Natural Resources Blessing?


Appendix: Calculations of wage premium

Wage premiums are estimated by means of a Mincer wage regression, based on individual worker’s microdata. The Mincer equation consists of a regression of the logarithm of the hourly wages on dummies for educational levels, a potential experience variable (constructed as age minus years of education minus 6) and its powers up to the order of 4, and a series of regional and urban-rural controls. The remuneration for each input \( \ln w_{it} \) is computed from this regression as a weighted average of the returns to education of each of the educational levels belonging to the corresponding input. The wage premiums are then obtained as the difference of these remunerations. The regressions have the following form:

\[
\ln w_{it} = \alpha + \beta_{c.collit}D_{c.collit} + \beta_{i.collit}D_{i.collit} + \beta_{c.secit}D_{c.secit} + \beta_{i.secit}D_{i.secit} + \beta_{c.priot}D_{c.priot} + \delta X_{it} + \varepsilon_{it} \tag{A1}
\]

where \( w \) is the wage for worker \( i \) at time \( t \), the \( D \) variables are indicators for the level of educational attainment (college complete and incomplete, secondary complete and incomplete, and primary complete–primary incomplete is the omitted category) with their corresponding \( \beta \) coefficients, and the \( X \) variables represent a set of individual characteristics, which include years of experience, region of residence and urban/rural status (when available).

Defining skilled workers as those with some college (complete or incomplete) and the unskilled as those without any college education, the corresponding skilled-unskilled wage premium is given by:

\[
\ln \left( \frac{w_{it}}{w_{it}^s} \right) = \ln \left( \frac{\beta_{c.collit} + \gamma_{c.collit} \beta_{i.collit}}{\gamma_{c.collit} \beta_{c.collit} + \gamma_{i.collit} \beta_{i.collit}} \right) - \ln \left( \frac{\beta_{c.secit} + \gamma_{c.secit} \beta_{i.secit} + \gamma_{c.priot} \beta_{i.priot}}{\gamma_{c.secit} \beta_{c.secit} + \gamma_{i.secit} \beta_{i.secit} + \gamma_{c.priot} \beta_{i.priot}} \right) \tag{A2}
\]

where \( \beta_i \) is the coefficient associated to educational level \( i \) in the Mincer equation at time \( t \), and \( \gamma_k = E_i/E_k \) is the share of employment of the individuals with the educational level \( i \) in the employment of input \( k \) in a base period. As in Katz and Murphy (1992), the base period is defined here as the average of all years for each country.
Table 7.1. Gender gaps in labor force participation and hours worked. Latin America, unweighted average, 2018

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<th>Labor force participation</th>
<th>Hours of work</th>
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<td>Men (ii)</td>
<td>Gap LFP (i)/(ii)</td>
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<td></td>
<td></td>
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<tr>
<td>[15-24]</td>
<td>36.9</td>
<td>58.6</td>
<td>0.63</td>
</tr>
<tr>
<td>[25-54]</td>
<td>67.2</td>
<td>94.7</td>
<td>0.71</td>
</tr>
<tr>
<td>+55</td>
<td>33.9</td>
<td>63.6</td>
<td>0.53</td>
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<td>By cohort</td>
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<tr>
<td>[1948-1957]</td>
<td>37.0</td>
<td>69.1</td>
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<td>[1958-1967]</td>
<td>58.6</td>
<td>90.6</td>
<td>0.65</td>
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<tr>
<td>[1968-1977]</td>
<td>68.9</td>
<td>95.6</td>
<td>0.72</td>
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<tr>
<td>[1978-1987]</td>
<td>69.5</td>
<td>96.1</td>
<td>0.72</td>
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<td>Group [25-54] By education</td>
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<tr>
<td>Primary incomplete</td>
<td>53.8</td>
<td>89.4</td>
<td>0.60</td>
</tr>
<tr>
<td>Primary complete</td>
<td>60.5</td>
<td>95.4</td>
<td>0.63</td>
</tr>
<tr>
<td>Secondary incomplete</td>
<td>63.4</td>
<td>95.6</td>
<td>0.66</td>
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<tr>
<td>Secondary complete</td>
<td>68.5</td>
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<td>0.71</td>
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<td>90.4</td>
<td>0.82</td>
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<td>By living with partner or not</td>
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<tr>
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<td>0.63</td>
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<td>0.89</td>
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<td>By number and age of children</td>
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<td>95.6</td>
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<td>With children 5 or less</td>
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<td>98.5</td>
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<td>68.5</td>
<td>97.7</td>
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<td>0.63</td>
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<td>Quintile 5</td>
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<td>By household per capita income</td>
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<td>91.6</td>
<td>0.55</td>
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<tr>
<td>Quintile 2</td>
<td>56.6</td>
<td>93.6</td>
<td>0.61</td>
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<tr>
<td>Quintile 3</td>
<td>65.9</td>
<td>94.6</td>
<td>0.70</td>
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<tr>
<td>Quintile 4</td>
<td>74.2</td>
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<td>0.77</td>
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<td>Quintile 5</td>
<td>83.5</td>
<td>96.4</td>
<td>0.87</td>
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Source: Own calculations based on microdata from national household surveys.
Table 7.2. Gender wage gaps. Latin America, unweighted average, 2018

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<th>Women</th>
<th>Men</th>
<th>Ratio</th>
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<td><strong>Total</strong></td>
<td>100</td>
<td>105.3</td>
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<td>[15-24]</td>
<td>73.2</td>
<td>71.2</td>
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<td>[25-54]</td>
<td>105.7</td>
<td>110.7</td>
<td>0.955</td>
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<td><strong>55+</strong></td>
<td>98.8</td>
<td>117.5</td>
<td>0.841</td>
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<td><strong>By cohort</strong></td>
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<tr>
<td>[1948-1957]</td>
<td>97.1</td>
<td>118.6</td>
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<td>108.9</td>
<td>119.6</td>
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<td>[1968-1977]</td>
<td>108.3</td>
<td>118.3</td>
<td>0.915</td>
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<td>[1978-1987]</td>
<td>105.3</td>
<td>109.6</td>
<td>0.961</td>
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<td><strong>Group [25-54] By education</strong></td>
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<td><strong>By children</strong></td>
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<td>With children [6-17]</td>
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<td>0.924</td>
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<tr>
<td>Rural</td>
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<td>86.2</td>
<td>0.961</td>
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Source: Own calculations based on microdata from national household surveys.
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<td>Álvaro García-Marín</td>
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<td>11</td>
<td>Market Concentration, Market Fragmentation, and Inequality in Latin America</td>
<td>Marcela Eslava / Marcela Meléndez / Nicolás Urdaneta</td>
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<td>Ana Arjona</td>
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<td>Francisco Alvarado / Marcela Meléndez / Marcela Pantoja</td>
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