

Income instability during a period of improving labor and social conditions: Latin America in the 2000s

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Abstract

Latin America experienced a long period of sustained growth since 2003 derived, basically, from the implementation of adequate macroeconomic policies and favorable external conditions. This improved economic environment, together with a denser group of labor and social policies, positively impacted on social and labor conditions. The aim of this paper is to analyze the intensity of income fluctuations in Argentina, Brazil, Costa Rica, Ecuador and Peru during the 2003-2012 period. It will decompose total mobility between those derived from upward or downward changes. Different sources of real household incomes movements will be also analyzed as they could originate in variations in earnings, in transitions experienced by its members between labor statuses and jobs, and in non - labor incomes alterations. Finally, a comparison between the initial and the final part of the period will be also made.

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INTRODUCTION

Macroeconomic instability is a traditional feature of most Latin American countries and one of the main reasons leading to sizable and frequent household real incomes movements. They are, to a large extent, derived from changes in labor demand and high inflation rates. However, certain characteristics of the labor markets, particularly the considerable share of informal workers and of those working in the informal sector, amplify the effects of those variables and introduce new sources of mobility. The effect of those factors are not generally offset by public policies given the lack of extended mechanisms of income transfers, even for those workers covered by social security.

Consequently, income security that in principle affects individual and household welfare, appears to be a pervasive feature in the region. Notwithstanding such potential impact, its analysis is less prominent in the discussion of welfare level and distribution in Latin America.

Since the beginning of the new century the region experienced a period of sustained improvement of its social and labor market conditions, including reductions in poverty and in its traditionally very unequal income distribution. These developments were driven by a rapid economic growth (that reached an unprecedented pace for such a long period) but different policies, both economic and social ones, had also important distributive effects.

Certain specific developments should have had clear effects on income instability. A more stable and sustained growth, as it was the case during the period, meant a more stable employment and less involuntary movements between labor statuses and also between jobs. Hence, household incomes should have reduced its degree of fluctuations. An increase in the share of formal occupations, which occurred in many countries, should have also played a similar role at the individual level. Relative extensive cash transfers programs, and non-contributory pension scheme, implemented in some countries, usually reduce household real income movements. Low inflation rates as those prevailing in most economies drastically reduce the effect of a usual source of real income instability as it had been the case during previous decades in different countries. This conclusion is not contradictory to the possible occurrence of upward movements in household incomes. They would have resulted from rising real wages and also from increasing employment opportunities that raised voluntary upward movements in search of better paid jobs. The improved labor market conditions, together with some policies as the growth of the real value of minimum wage, could have also led to persistent earnings increases leading to rising movements in household income.

The analysis of income mobility during the period 2003-2012 of rapid economic growth and improved labor and social conditions would therefore provide evidence on both an important feature of labor market functioning and a relevant dimension of welfare. Even if, as said, the characteristics of income movements could have changed during these years leading to less instability, a high proportion of informality and relatively reduced mechanisms of social protection still remains a central feature of Latin American labor markets.

This paper will focus on the measurement and analysis of the intensity and characteristics of real household income mobility in Argentina, Brazil, Costa Rica,

Ecuador and Peru between 2003 and 2012. It will decompose total mobility between those derived from upward or downward changes. Different sources of real household incomes movements will be also analyzed as they could originate in variations in earnings, in transitions experienced by its members between statuses and jobs, and in non - labor incomes alterations. A comparison between the initial and the final part of the period will be also made.

Data to be employed comes from countries' household surveys with rotating sample scheme as they make it possible to generate dynamic data. However, given differences in the windows of observation existing between countries, only changes between two successive observations for each household could be identified.

The rest of the document is structured as follows. The first section discusses the measurement of income mobility and fluctuations and describes the indicator to be used. Section 2 details the data employed. Section 3 presents a brief overview about recent trends in economic and labor market situation in Latin America. The following section analyzes the intensity of household income mobility while section 5 evaluates the sources of this mobility. Finally, section 6 concludes.

1. Mobility and fluctuations measurement

When studying changes in individual and/or family incomes over time it is possible to focus on the analysis of income instability by evaluating its intensity, exploring how such intensity varies through time and also between groups of individuals. The relevance of this variable rests on the idea that income volatility negatively affects welfare, specifically, the utility of a given volume of economic resources. In particular, it increases risk and, even if changes could be anticipated, utility is nevertheless affected, especially in countries with poorly developed credit markets. If two households received the same average income at the end of the year, but one of them had no income for half of that year, whereas the other received 1/12 of its annual income every month, the welfare levels of the two recipients are likely to have been very different. Income instability is also a main factor associated to income insecurity.

However, a large volume of research analyzes the paths of personal or household incomes with a view to evaluating the direction and magnitude of the changes they experience; this topic is known in the specialized literature as "absolute mobility". When the effect of such movements on changes in the relative position in the distribution of income is studied, it is usually referred as "mobility".

This paper stems from an interest in looking at household income instability, a dimension closely linked to absolute mobility. This was an important characteristic of the last half of the past century that, as indicated, negatively influenced the welfare of a large part of Latin American households. Moreover, this variable is related to another interesting body of research regarding the large transitions movements that characterize labor markets in the region.

Studies on income instability usually employ data coming from longitudinal surveys allowing for tracking individual or household incomes during relative long periods of time. For Latin American countries, the lack of this sort of surveys leads to the use of dynamic data coming from the rotating panel of the regular household surveys (see next

section). The objective of this paper is to study income instability in various countries in order to identify differences in its intensity and in the importance of diverse sources. This comparative study faces, however, a difficulty as it will be only possible to compare two successive observations of each household. This limitation arises from disparities in the observation windows between the interviews made to the same household in the surveys of the selected countries, as it will be mentioned detailed below.

We will use a typical mobility indicator to measure instability. Nevertheless, it will provide sufficient information on the intensity of income changes, especially to assess changes in time, differences between types of households and to examine the sources of mobility.

The indicator to be employed is of wide use in the mobility literature, proposed by Fields and Ok (1999)

$$m_n^* = \frac{1}{n} \sum_{i=1}^n |\ln y_2 - \ln y_1|$$

Where n is the number of households, y_t indicates the total family income in two successive observations and $\ln(y)$ is the logarithms of these incomes.

However, this indicator could only contemplate those cases with positive incomes in both observations. This limitation is not very important to assess average mobility for the whole population and also for some groups of households. However, it will become more frequent to find cases with zero incomes when studying the mobility of individual sources. Therefore, the coefficient of variation (CV) of real incomes between the two observations was also computed.

In order to identify the importance of upward and downward movements we also calculate m_n and CV separately for $y_2 > y_1$ and for $y_2 < y_1$.

In general, income mobility is calculated over all cases irrespectively of the size of the distance between y_1 and y_2 . However, small variations in income would not affect household welfare. Therefore, it is also possible to estimate the mobility indices considering that variations lower than certain thresholds are null.

Two versions of these indices will be estimated: on the one hand, considering the actual income changes in all cases and, on the other, taking as zero the variation of income of those households with differences –positive or negative– between y_1 and y_2 lower than 10%. A threshold of 20% will be also considered to analyze the sensitivity of the results.

The mobility indices will be complemented with figures on the proportion of cases that register a change in income, distinguishing between upward or downward movements. Those different thresholds will be also used here.

Changes in total household income will be considered in all countries except in Brazil where the survey that provides dynamic information (see below) measures labor

incomes only. Therefore, comparisons of mobility intensity and patterns for total income will be possible for four countries while mobility of labor incomes will be examined for the five considered cases.

2. Data sources

The data used in this paper came from regular household surveys carried out by the national statistical institutes of the selected countries. The data focus on labor market variables, but they also include information on other social and demographic household characteristics.

Given the lack of longitudinal surveys for most of the Latin American countries, dynamic data for those considered in this paper were constructed using the rotating sample scheme of their household surveys. This kind of scheme implies that the total sample is divided into a certain number of household groups, with each group remaining in the sample for a given number of observation periods or waves. Therefore, for each wave of the survey, one of these groups enters the sample while another one leaves. Consequently, it is possible to compare a given proportion of the sample between two or more waves. The only case with a longitudinal survey is Peru although, as will be indicated below, the panel covers a few years.

The Argentinean data were taken from the *Encuesta Permanente de Hogares* (EPH), which is conducted by the *Instituto Nacional de Estadística y Censos* (INDEC). For Brazil, micro-data from the *Pesquisa Mensal de Emprego* (PME) which is conducted by the *Instituto Brasileiro de Geografia e Estatística* (IBGE) will be employed. This survey, however, only gathers information on labor incomes. For Costa Rica, the *Encuesta de Hogares de Propósitos Múltiples* (EHPM) and the *Encuesta Nacional de Hogares* (that replaced the former in 2010), conducted by the *Instituto Nacional de Estadística y Censos* (INEC), were used. For Ecuador, we resort to the *Encuesta Nacional de Empleo, Desempleo y Subempleo* (ENEMDU), conducted by the *Instituto Nacional de Estadística y Censos* (INEC). In the case of Peru, data from longitudinal panels built from sub – samples of the *Encuesta Nacional de Hogares* (ENAHO), the regular household survey conducted by the *Instituto Nacional de Estadística e Informática* (INEI), were used.

As indicated above, in order to obtain comparable datasets among countries, one transition for each household, of a one-year interval between observations, had to be considered. The periods covered in each country are the following: 2003-2012 for Argentina and Brazil, 2006-2011 for Costa Rica, 2004-2012 for Ecuador and 2002-2010 for Peru. Since not all the surveys are nationally representative and given that labor markets in rural areas and urban centers can behave differently, the analysis was restricted to urban areas.

A limitation of panel data is that the proportion of households actually interviewed in two successive periods may be less than expected according to the sample rotation scheme due to attrition, which can introduce sample bias if attrition is not random. However, no information was available in the microdata bases in order to identify the loss of data due to sample attrition and differentiate it from the loss of observations associated with the survey rotation scheme. This inability prevented us from applying an attrition bias correction for all countries.

Another difficulty for assessing mobility with survey data is the errors when measuring income changes. This is another reason for considering that variations lower than the above mentioned thresholds are null.

3. Recent trends in economic and labor market performance in Latin America

Latin America initiated at the beginning of the 2000s a period of high and sustained economic expansion. It was particularly intensive between 2003 and 2008 when per capita GDP rose at an annual average pace of 3.4%, an unprecedented performance in the region in terms of rate and duration. Growth was rapidly resumed after the 2008/09 crisis although the intensity was somewhat lower –2.8% between 2009 and 2013-, especially during the last two years when it reached 1.5%.

The recent period of high economic growth experienced by Latin America had a positive impact on social and labor market indicators through the creation of jobs - especially formal ones-, and the reduction of unemployment. Employment rates showed a positive trend, rising from 52.3% to 56.1% between 2003 and 2013. During this period, the regional unemployment rate fell from 11.4% to 6.2%. Concerning the employment situation, advances continued after the 2008/09 crisis but also at a slower pace than before.

The positive macroeconomic situation seems to have also facilitated the recovery of wages, a situation that in some countries was also favored by the implementation of active real minimum wage policies and the reactivation of collective bargaining, together with measures that promoted the formalization of employment. Precisely, the share of wage- earners covered by social security¹ rose from 70.5% in 2000 to 77.4% in 2013. Furthermore, these measures also had a positive impact on reducing inequality by extending the coverage of labor institutions to previously excluded groups.

Indeed, these years were characterized by a reduction of income inequality and income poverty in almost all countries (ECLAC, 2014). Regarding the latter, and according also to ECLAC data, the proportion of poor persons fell rapidly between 2002 and 2008 (from 43.9% to 33.5%), but less rapidly during the next five years (28.1% in 2013)

The five countries exhibited a large economic growth during the 2003-2013 period as GDP per capita grew 5.4% instead of 2.8% for the whole of the region as above indicated. The difference can be appreciated both before and after the 2008/09 crisis. Argentina and Peru were those with the faster growth among the selected countries. However, the former one and Brazil showed a much reduced growth in 2012 and 2013.

Those improvements in labor market conditions mentioned for of Latin America as a whole are reflected in the evidence for these five countries (Table 1) where employment rates grew at important paces and the fall of unemployment rate was also significantly. Similarly, informal or non – registered wage earners increased as a proportion of total employees. Costa Rica exhibited the less favorable performance, with unemployment even rising. Real incomes also showed a positive evolution in all cases.

¹ Data from ILO and refer to the share of those covered by the social security in terms of pensions or health.

Table 1
Employment and income indicators. Latin American Countries, 2003-2013

		Argentina	Brazil	Costa Rica	Ecuador	Peru
Unemployment rate (%)	2003	17,3	12,3	6,7	9,8	9,4
	2006	10,2	10,0	6,0	8,1	8,5
	2008	7,9	7,9	4,8	6,9	8,4
	2011	7,2	6,0	7,7	6,0	7,7
	2012	7,2	5,5	7,8	4,9	6,8
	2013	7,1	5,4	8,2	4,7	5,9
Employment rate (%)	2003	49,8	50,1	51,8	51,5	61,1
	2006	54,1	51,2	53,3	54,3	61,8
	2008	54,2	52,5	53,9	56,0	62,4
	2011	55,2	53,7	56,0	51,9	64,5
	2012	55,0	54,2	55,4	53,2	64,4
	2013	54,7	54,0	54,7	52,2	64,8
Registered employees as % of total employment	2003	40,5	50,9		24,4	17,3
	2006	43,8	53,2	53,1	23,7	24,8
	2008	47,7	55,9	56,0	26,0	27,3
	2011	51,1	61,0	57,8	36,3	29,4
	2012	50,4	61,6		38,2	32,7
	2013	51,0	63,4			
Average real earnings (index number 2003=100)	2003	100	100		100	100
	2006	128	105	100	112	96
	2008	127	116	113	118	103
	2011	142	125	102	121	107
	2012	136	131		128	118
	2013	139	133			
Average per capita household (index number 2003=100)	2003	100			100	100
	2006	138		100	124	101
	2008	139		116	119	112
	2011	156		126	122	112
	2012	152			130	124
	2013	151				

Source: Own elaboration and ECLAC

The mentioned deceleration in the employment and income growth registered for the aggregate of the region is observed in some but not in all the five cases. It was more generalized regarding the employment rate as it reduced its expansion rate during, or slightly before, the financial crisis. Similar results can be observed in the unemployment rate although it kept falling afterwards in Peru. This last country also showed a persistent reduction in informality; it must be taken into account, however, that Peru still registers the highest share of non-registered employees among the five countries by the end of the considered period.

Finally, real incomes improvements also slowed down, or even stopped, in Argentina around 2006 and in Brazil by 2011. They continued rising in Ecuador and Peru.

4. The intensity of household income mobility

Table 2 indicates that household income mobility –measured by any of the two mobility indices (m and CV)– differ to some extent between the five countries when considering the alternative thresholds and income coverage (total or exclusively labor incomes). Ecuador and Peru shows the largest degree of instability in all cases while Argentina the lowest; Costa Rica and Brazil appear in an intermediate position.

The intensity of income mobility in these Latin American countries, when the actual variations in income are considered (i.e. no threshold imposed) appears as relatively higher than in some developed economies when comparing figures obtained using the same Fields and Ok indicator. For example, estimates by Cantó and Ruiz (2014) for USA and Spain between 2004 and 2006 reached, on average, 0.4 when computed for household equivalent disposable income of individuals; moreover, changes in a two -

years period are considered, instead of one year as in the present paper. Data for Canada, USA, Britain and Germany for the nineties and early 2000s, in this case for individuals' income and considering five years periods (Chen, 2009), point into the same direction. Only Argentina exhibits m indices similar to those of these developed countries.

It is arguably that mobility should be relatively high in a period of employment and real income recovery as the one witnessed by most of the five Latin American countries during the years under analysis. This process should have been associated with movements, larger than in previous years, from unemployment and inactivity to employment and from low quality to better jobs. Real wages were also improving. The consequence should have been the presence of many upwards movements, i.e. households that increased their income.

Precisely Table 2 shows that the proportion of households registering increases of their real incomes is larger than the corresponding to those facing a reduction. However, between 45 and 50% of all households register a fall of their total real income when all actual changes are considered. These figures remain still high when a threshold of 10% is imposed (between 30 and 40%) and reach values of 30% (except in Argentina) if a more strict limit is used (threshold of 20%). Therefore, a result worth stressing is that even in a period generally characterized by an improvement of average income, a large portion of households did experienced a fall in their current resources This must be viewed of an evidence of the persistence of high levels of income insecurity.

The importance of downward movements is reflected when disaggregating the overall m index between the two groups of households classified according to whether they registered an increase or a reduction in their incomes.² It resulted that those episodes of household income reduction accounts for about 40 to 50% of total mobility (except, again, in the case of Argentina where it is slightly higher than 35%) (Table 2).

When considering exclusively labor incomes, the proportion of household facing a fall in their real income is virtually the same that the above mentioned for total family incomes. However, the contribution of these episodes to the overall mobility index change, expect in Ecuador. In Argentina and in Costa Rica, labor income reductions have a higher relative importance than before. The contrary happens in Peru where the fall in family incomes accounts for near 50% of total mobility whereas the reduction in labor incomes explains just on third of m mobility change. The latter figure for Brazil, where, as mentioned, this comparison is not possible, is around 40%, similar to Argentina (Table 2).

Given changes in the overall economic and social situation that faced many Latin American countries by the latter part of the 2000s (mentioned in a previous section), it is worth analyzing whether the intensity of mobility also experienced some modifications. Two sub – periods were considered but they differ for each country; even if the 2008/09 financial crisis had a generalized effect, there were specific developments that make it convenient to distinguish among cases.³

² As m for all movements is the weighted average of m for upward and downward changes.

³ Macroeconomic and labor market situation in Argentina began to show some alterations by 2007, when inflation rates grew, employment and wages decelerated; not withstanding that, GDP showed higher rate growth in 2011. In Costa Rica, given the relative short period with data, the first period covers the 2006-

However, the value of the m index did not show major changes between the two periods. The share of downward mobility intensity also remains without much change except in Argentina where it grew in the second period (Table 3).

When only considering labor incomes the value of mobility indices do not change in either, except in Costa Rica where they grew significantly in the last years of the decade (Table 3). The share of upward and downward movements increases in Argentina and Brazil, remaining constant in the rest of countries as for total household incomes.

Total income mobility indices are larger for households headed by persons of low level of schooling in the case of Argentina and, especially, Peru. However the expected negative relationship between mobility and schooling is generalized when labor incomes are considered (Table 4).

An unanticipated result was that the share of upward and downward movements is similar for the three educational groups (Table 4); only in the case of Peru the lowest one has the largest proportion of downward changes. Perhaps even more surprising, and contrary to previous results for at least one country⁴ and in the literature for developed countries,⁵ the effects of the deterioration of the social and economic conditions seemed to have been shared by all identified groups with a similar intensity.

5. Sources of mobility

Household income mobility could derive from changes in either labor or non – labor incomes of their members, or in both of them. In turn, the former may reflect variations in labor status (employed or unemployed / non – active) of the members and/or in the earnings of those that remain employed. It would be therefore convenient to explore to what extent these different sources influence total household income mobility. Regarding non – labor incomes, changes could be associated with movements in pensions or other components.

Unfortunately, the m index, CV, or any other usually employed in mobility assessment, cannot be disaggregated to reach direct measures of the contributions of those different sources. In order to obtain certain evidence on the relevance of them, m indices and CVs were calculated for different simulated total household incomes. Each of them assumes that only one of the identified income source change while the others are kept constant. These estimates will be made exclusively for indices computed considering the 10% threshold.

For example, in order to quantify the effect of non – labor income, mobility indices were calculated by comparing, for each household, observation 1 actual income and a simulated total income for observation 2 defined as the sum of actual non – labor income (inflation - adjusted) plus real labor income registered in observation 1 (i.e. actual observation 1 labor income inflated by price variation). The variability associated

2009 while the second corresponds to the 2010-11 panel, considering the change underwent by the survey in 2010. For the rest of the countries, the sub-periods were defined in order to reflect the potential negative impacts of the financial crisis; consequently, 2008 is the year that separates both periods.

⁴ Beccaria and Groisman (2008), although another methodological approach was employed.

⁵ For example, Cantó and Ruiz (2014).

to labor income mobility was computed with a similar criterion. The same approach was employed to evaluate the variability of each of the two identified component of non – labor income. We will refer to this as the *first disaggregation approach*.

It appears that non- labor components has a lower effect on total household income mobility than labor ones (Table 5 Panel A). It must be emphasized that indicators computed under this first approach measure average mobility of total household income derived from changes in either labor or no labor incomes. The measured influence of any source results from its own degree of instability and also from its share in total household income. The lower impact of non-labor component is to a large extent consequence of its usually reduced contribution.

Therefore, another issue that appears as relevant in the analysis of mobility is to evaluate the **degree of mobility of the source itself**. This can be done by calculating mobility indices exclusively for total non-labor or total labor incomes. While in the exercise previously described the indicators are computed by comparing the total simulated household income (i.e. the total income of observation 2 is simulated by assuming that the amount of one of the sources is similar, in real terms, to that of observation 1), in this second exercise the indices are calculated over the total amount of only one source. We will refer to this exercise as the *second disaggregation approach*.

In Table 5 (Panel B) it can be seen that labor and non-labor income appears as similar in Argentina and Costa Rica, while the former are more unstable in Ecuador and the contrary happens in Peru. In all cases, pensions are, as expected, the less volatile non-labor income source. These results confirm that the lower impact of this component in accounting for overall household income mobility is mainly due to its reduced share in family incomes.

But an attempt was also made to use the first disaggregation approach to assess the mobility of total household income associated with each of the two events above mentioned: change in the labor status and in earnings of those members that remain employed. To evaluate mobility of the first event, it was necessary to keep wages constant; therefore, total simulated income of observation 2 for each household was estimated by considering observation 1 real value of the aggregate of non – labor income and of the remunerations of those employed members.

In order to evaluate the effect of earnings variations on total household income mobility, simulated incomes were estimated for each observation. The corresponding to the first one resulted from adding all effective incomes plus a simulated one for those not employed in observation 1 (but employed in the other). This income was simulated assuming that the variation between both observations was similar to the average real earnings change. Observation 2 income, in turn, resulted from aggregating: i) total non-labor income of observation 1 (inflated by price change); 2) actual remunerations of those who were also employed in both observations (inflation – adjusted) and, 3) a simulated income for those with no employment in observation 2 (but with employment in the other). The latter follow the same criterion above mentioned as it resulted from assuming the average variation of real earnings.

Data computed according to the first disaggregation approach showed that variations in labor status are the most important source of changes in total household income, except for Argentina (Table 5, Panel A). This result reflects both the important occupational instability that characterizes the Latin American labor markets and the large change in income associated to obtaining or leaving a job. Figures in Table 6 show that countries with higher proportion of episodes of changes in labor status exhibit the larger mobility indicators.

It must remember that in this first disaggregation approach, mobility indices are estimated considering all households, regardless of receiving or not labor incomes and regardless of having experienced or not the labor event.

In order to try to control for this factor, the second disaggregation approach could be also employed in order to compute mobility indices for **only labor income of those households that experienced each of these events**. Consequently, m and CV were calculated excluding non - labor incomes and averaging only over those households registering the given event (Table 5, Panel B).

As expected, labor income fluctuations are the largest in those household with at least one member entering or leaving a job; situation that can be also found in Argentina

Table 6 also indicates the negative correlation between educational level and the frequency of change in labor status, consistent with the previous evidence in region.

Figures not shown here indicate that the general picture about the contributions of the different sources and its degree of own mobility intensity do not change to a great extent between the two periods.

6. Summary and conclusions

The main purpose of this paper was to provide a comparative view of income mobility in five Latin America countries during the 2000s. Even if comparisons with figures coming from studies for other countries faces limitations (mainly associated to the data sources employed), it appears that, as expected, the degree of mobility is larger in the region than in certain developed countries.

These probably high levels of household income mobility, measure by the two indices employed (the Field and Oak mobility indicator and the Coefficient of Variation), do not necessarily reflect a period of deep income insecurity in Latin America. The countries of the region (most of the five here considered) improved their economic and social situation during this period and, as a consequence, many household should have increased their incomes. Precisely, the presence of a large number of income rises in all five cases was one of the finding of the analysis.

However, at the same time, a large proportion of households reduced their incomes, even in a period characterized by sustained economic growth. If assuming that a situation of income change occur when it varies more than 10%, between a 35 and 40% of household experienced a negative movement. Moreover, between 25 and 35% of households witnessed a 20% or larger reduction of their income. Consequently, many

households still face an important degree of income insecurity even in a good macroeconomic environment and employment growth period.

The persistence of income insecurity is linked to the large proportion of household with at least one of its members changing labor status. The high prevalence of informal employment is probably the main reason behind the high occupational instability that still characterizes Latin American labor market, even during a period of particularly good employment performance.

Even if mobility, and the proportion of downward movements, do not show much differences between households headed by persons with different schooling (as a proxy of socio – economic categories), the negative effects of high instability and, especially, a drop of incomes, are particularly damaging for those of low levels of education.

This is reinforced by the lack of adequate social protection systems that cushion the effect of labor market events that lead to downward changes in household incomes. The employed in informal occupations, those more affected by high employment instability, do not benefit from any program that compensate for an eventual exit from that job. But the situation is not much better for those losing a formal job; the scope and coverage of unemployment insurance in Latin America has been historically limited. Even in those few countries that do have policies of this kind (such as Argentina, Brazil and Ecuador), replacement rates are very low and coverage rates, even among unemployed coming from formal jobs, are low.

Income instability, and in general, income insecurity, should be addressed by different and complementary policies. On the one hand, reinforcing the formalization process in order to reduce the share of –the highly unstable- informal and precarious employment. On the other hand, to extend the coverage of cash transfers programs leading to mitigate the effect of incomes reducing events, particularly for vulnerable households.

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ANNEX

TABLE 2. MOBILITY INDICATORS WITH ALTERNATIVE THRESHOLDS FOR THE WHOLE PERIOD

	Argentina (2003-13)			Brazil (2003-12)			C. Rica (2006-11)			Ecuador (2004-12)			Peru (2002-10)		
	Zero	10%	20%	Zero	10%	20%	Zero	10%	20%	Zero	10%	20%	Zero	10%	20%
TOTAL HOUSEHOLD INCOMES															
m	0.38	0.36	0.33				0.5	0.49	0.46	0.63	0.63	0.61	0.6	0.59	0.57
CV	0.28	0.27	0.25				0.38	0.37	0.36	0.42	0.41	0.4	0.38	0.37	0.36
Proportion of cases (%)															
upward	56	45	35				53	44	37	52	47	41	52	45	39
stayer							19	35	35	13	25	25	15	28	28
downward	44	33	23				47	36	28	48	40	34	48	40	33
Contribution (%)															
upward	63	63	64				56	56	58	55	56	59	52	56	58
downward	37	37	36				43	42	42	45	44	41	48	44	42
LABOR HOUSEHOLD INCOMES															
m	0.4	0.38	0.35	0.44	0.43	0.41	0.42	0.47	0.47	0.66	0.65	0.63	0.69	0.68	0.66
CV	0.37	0.36	0.35	0.46	0.45	0.39	0.38	0.37	0.36	0.48	0.48	0.47	0.43	0.43	0.41
Proportion of cases (%)															
upward	56	46	37	52	43	36	53	45	37	53	47	42	52	46	41
stayer		21	40		24	38		19	34		13	25		14	26
downward	44	33	23	48	33	27	47	37	28	47	40	34	48	40	34
Contribution (%)															
upward	59	59	60	59	51	60	54	54	55	54	54	54	36	36	53
downward	41	41	40	41	41	40	46	46	45	46	46	46	32	32	47

TABLE 3. MOBILITY INDICATORS (CONSIDERING THRESHOLD 10%)

	PERIOD 1					PERIOD 2				
	Argentina	Brazil	Costa Rica	Ecuador	Peru	Argentina	Brazil	Costa Rica	Ecuador	Peru
TOTAL HOUSEHOLD INCOMES										
m	0.37		0.48	0.66	0.60	0.35		0.49	0.6	0.58
CV	0.29		0.38	0.43	0.37	0.26		0.36	0.4	0.37
Proportion of cases (%)										
upward	49		46	48	45	42		42	45	45
stayers	22		18	12	15	23		21	14	16
downwards	28		36	40	40	35		38	41	39
Contribution (%)										
upward	63		56	55	52	54		53	54	53
downwards	37		44	45	48	46		48	46	47
LABOR HOUSEHOLD INCOMES										
m	0.4	0.43	0.45	0.66	0.69	0.38	0.44	0.52	0.64	0.65
CV	0.37	0.43	0.36	0.48	0.43	0.36	0.43	0.42	0.48	0.43
Proportion of cases (%)										
upward	51	43	45	48	46	43	43	44	46	46
stayers	21	25	19	13	13	22	23	19	14	15
downwards	29	32	36	40	40	35	34	37	40	39
Contribution (%)										
upward	65	65	55	55	53	56	56	53	53	53
downwards	35	35	45	45	47	44	44	47	47	47

Table 4. MOBILITY INDICATORS ACCORDING TO SCHOOLING OF THE HEAD OF HOUSEHOLD

	Total Household income				Labor household income				
	Argentina	Costa Rica	Ecuador	Peru	Argentina	Brazil	Costa Rica	Ecuador	Peru
THE WHOLE PERIOD									
m index according to schooling									
Average	0,39	0,49	0,63	0,59	0,38	0,43	0,47	0,65	0,68
Low	0,38	0,50	0,64	0,66	0,42	0,45	0,49	0,67	0,77
Medium	0,34	0,45	0,6	0,51	0,35	0,43	0,44	0,62	0,57
High	0,33	0,46	0,63	0,43	0,34	0,4	0,42	0,63	0,47
CV index according to schooling									
Average	0,28	0,37	0,41	0,37	0,36	0,45	0,37	0,48	0,43
Low	0,29	0,38	0,42	0,41	0,42	0,49	0,45	0,53	0,5
Medium	0,27	0,38	0,4	0,33	0,34	0,42	0,36	0,48	0,42
High	0,24	0,36	0,41	0,28	0,3	0,37	0,35	0,48	0,35
Proportion of downward movements according to schooling (%)									
Low	32	37	40	42	33	32	38	40	42
Medium	33	37	40	38	32	33	35	40	40
High	34	36	45	37	33	34	34	44	38
PERIOD 1									
m index according to schooling									
Average	0,4	0,48	0,66	0,6	0,4	0,43	0,45	0,66	0,69
Low	0,39	0,49	0,67	0,67	0,43	0,44	0,46	0,68	0,5
Medium	0,34	0,46	0,62	0,52	0,34	0,43	0,44	0,61	0,78
High	0,34	0,47	0,66	0,42	0,34	0,39	0,43	0,65	0,57
CV index according to schooling									
Average	0,28	0,38	0,43	0,37	0,37	0,45	0,36	0,48	0,43
Low	0,31	0,38	0,44	0,41	0,42	0,48	0,42	0,53	0,5
Medium	0,27	0,39	0,41	0,33	0,34	0,41	0,35	0,48	0,42
High	0,26	0,38	0,43	0,28	0,29	0,36	0,36	0,48	0,36
Proportion of downward movements according to schooling (%)									
Low	28	36	39	42	29	32	37	39	42
Medium	29	35	40	39	27	32	35	39	39
High	28	36	45	37	27	34	34	43	38
PERIOD 2									
m index according to schooling									
Average	0,38	0,49	0,6	0,58	0,38	0,44	0,52	0,64	0,65
Low	0,38	0,52	0,61	0,65	0,41	0,46	0,56	0,65	0,75
Medium	0,35	0,45	0,58	0,51	0,37	0,42	0,46	0,61	0,58
High	0,34	0,43	0,61	0,46	0,34	0,41	0,42	0,62	0,44
CV index according to schooling									
Average	0,27	0,36	0,4	0,37	0,36	0,46	0,42	0,48	0,43
Low	0,28	0,37	0,4	0,41	0,42	0,51	0,5	0,53	0,49
Medium	0,26	0,36	0,39	0,33	0,34	0,42	0,39	0,49	0,42
High	0,24	0,33	0,4	0,29	0,3	0,38	0,34	0,48	0,33
Proportion of downward movements according to schooling									
Low	34	38	40	41	35	34	38	40	41
Medium	35	39	41	36	34	33	35	41	36
High	36	36	45	39	36	35	35	44	38

TABLE 5. MOBILITY INDECES BY INCOME SOURCES AND LABOUR EVENTS.

	<i>m</i> INDEX OF MOBILITY					COEFFICIENT OF VARIATION (cv)				
	Argentina	Brazil	Costa Rica	Ecuador	Peru	Argentina	Brazil	Costa Rica	Ecuador	Peru
Panel A										
	2003-2012		2006-2011	2004-2012	2002-2010	2003-2012		2006-2011	2004-2012	2002-2010
Non labor incomes	0,13		0,13	0,18	0,16	0,11		0,11	0,15	0,11
Pensions	0,08		0,04	0,05	0,02	0,06		0,03	0,04	0,01
Other non labor incomes	0,07		0,10	0,15	0,15	0,06		0,09	0,12	0,10
Labor incomes	0,28		0,41	0,58	0,55	0,22		0,31	0,40	0,34
Change en wages	0,29		0,34	0,37	0,23	0,20		0,25	0,25	0,16
Change in labor status	0,22		0,40	0,58	0,96	0,18		0,29	0,39	0,58
Total household income	0,36		0,49	0,63	0,59	0,27		0,37	0,41	0,37
Panel B										
	2003-2012	2003-2012	2006-2011	2004-2012	2002-2010	2003-2012	2003-2012	2006-2011	2004-2012	2002-2010
Non labor incomes	0,36		0,49	0,59	0,86	0,53		0,67	0,84	0,86
Pensions	0,28		0,25	0,41	0,18	0,34		0,37	0,87	0,33
Other non labor incomes	0,48		0,65	0,59	0,99	0,97		0,82	0,90	0,92
Labor incomes	0,38		0,47	0,65	0,68	0,36		0,37	0,48	0,43
Change en wages	m 0,33	0,30	0,36	0,51	0,31	0,22	0,20	0,23	0,32	0,20
% of changes experiencing										
event	75,2	65,3	68,4	43,4	40,4	66,8	55,5	61,2	38,6	38,5
Change in labor status	m 0,47	0,55	0,60	0,72	1,15	0,66	0,69	0,58	0,60	0,71
% of changes experiencing										
event	25,3	33,8	33,8	50,2	61,9	33,2	42,2	37,6	61,2	62,4
Total household income	0,36		0,49	0,63	0,59	0,27		0,37	0,41	0,37

**TABLE 6. PROPORTION OF CASES WITH CHANGES IN LABOR STATUS,
ACCORDING TO SCHOOLING OF THE HEAD OF HOUSEHOLD**

	Average	Low	Medium	High
Considering all households				
Argentina	19	27	18	14
Costa Rica	27	28	27	23
Ecuador	50	51	49	49
Peru	57	58	58	53
Considering only households with labor incomes				
Argentina	25	30	22	16
Brazil	34	38	33	22
Costa Rica	34	36	33	27
Ecuador	58	60	55	53
Peru	62	63	63	57