Lasting Scars: Unemployment, Inequality, and Structural Transformation in Latin America *

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Abstract

This paper shows that adverse youth labor market conditions in the highly unequal economies of Latin America contribute to the intergenerational transmission of inequality and slow structural transformation. Using repeated cross-sections from 18 countries, we find that early-career exposure to high unemployment rates causes higher long-term unemployment and lower rates of business ownership only among individuals whose parents did not complete secondary education. The same exposure increases the likelihood of remaining in small-scale farming, consistent with a traditional Harris–Todaro mechanism.

Keywords: scarring effects, unemployment, social origin, Latin America, structural transformation.

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1 Introduction

The scarring effects of unfavorable economic conditions at labor market entry may be particularly pronounced in middle-income economies with high inequality. In such contexts, macroeconomic instability generates more severe labor market shocks, while weaker social protection systems and higher poverty levels leave individuals with fewer resources to cope with disruptions. Moreover, in earlier stages of economic development, these shocks can have persistent effects that slow structural transformation. First, as in the classic Harris and Todaro (1970) framework, unemployment may constrain rural-urban migration, shaping long-term location and occupational choices. Second, while evidence from developed economies suggests that unemployment increases entry into business ownership (Hacamo and Kleiner, 2022), financial constraints in developing countries limit entrepreneurship, pushing potential entrepreneurs into salaried employment instead.

This paper studies the scarring effects of early-career exposure to higher unemployment rates on future unemployment and occupational choices in Latin America. Given the region's high and persistent inequality and the importance of family background when dealing with unemployment shocks, our main contribution lies in examining how these effects differ by social origin. We find pronounced and persistent scarring effects on unemployment, business ownership, and transitions out of small-scale farming, but only among individuals from lower socioeconomic backgrounds. This finding is consistent with classic theories in which market imperfections and high inequality constrain long-run development by preventing individuals with low initial endowments from realizing their full potential (Banerjee and Newman, 1993; Galor and Zeira, 1993).

We employ data from the Latinobarómetro survey for 18 countries between 1998 and 2017. This survey provides information on parental educational attainment, a standard measure of socioeconomic origin that is unavailable in other datasets with comparable spatial and temporal coverage. Following standard practice in the scarring effects literature, we exploit variation in the unemployment rate faced by different cohorts at the time they enter the labor market (Burgess et al., 2003; Raaum and Røed, 2006; Arellano-Bover, 2020; Schwandt and Von Wachter, 2020; Berniell et al., 2023). As emphasized by Schwandt and Von Wachter (2019), repeated cross-sections enable the analysis of multiple cohorts with large samples. As in Berniell et al. (2023), we consider exposure to unemployment at ages 18-20 and evaluate outcomes at ages 27-30. Our data allow us to construct a balanced panel of 15 birth cohorts (1973–1987) who entered the labor market between 1991 and 2007, a period of substantial macroeconomic variation across the region.

We find that a 5-percentage-point increase in the unemployment rate faced at ages

18–20, a shock that occurred in at least half of the countries in our sample, raises the probability of unemployment by almost 2 percentage points ten years later, but only among individuals whose parents did not complete secondary education. The persistence of these effects contrasts with findings for the United States, where effects on unemployment dissipate within a few years (Altonji et al., 2016; Schwandt and Von Wachter, 2019), and aligns with evidence from more rigid labor markets, such as those of European countries and Japan (Raaum and Røed, 2006; Genda et al., 2010; Fernández-Kranz and Rodríguez-Planas, 2018).

We further find that early-career exposure to higher unemployment rates has large and persistent effects on occupational choices, an almost unexplored dimension in the scarring effects literature.[1] Importantly, the direction of these effects implies that they constrain structural transformation, which magnifies their relevance in a region that has struggled to achieve sustained economic growth and reduce inequality. A 5-percentage-point increase in the unemployment rate faced at ages 18–20 lowers business ownership by 3 percentage points ten years later among individuals from lower socioeconomic backgrounds. The counterpart of this decline is a higher likelihood of salaried employment among those of low versus high social origin, consistent with classic models in which limited wealth and credit constraints restrict entrepreneurship and push individuals into wage work (Banerjee and Newman, 1993).

Scarring effects impact a second occupational margin that also limits structural transformation: the rural–urban transition that typically accompanies economic development. We find that early labor market shocks increase the likelihood of remaining in small-scale farming for individuals of all origins. This finding aligns with the notion that rural–urban migration is a one-time decision made early in life, with limited scope for subsequent adjustment. Although the effect is present across both low and high origins, given the negligible share of high-background individuals in small-scale farming, it is concentrated among those from lower socioeconomic origins.

Our results are robust to a range of alternative specifications. First, the Latinobarómetro data allow us to construct an alternative measure of the age of labor market entry based on the self-reported final year of formal education. Second, we confirm that the results remain stable when outcomes are evaluated at different ages. Our data and methodology also replicate the findings of Berniell et al. (2023), who document positive effects of exposure to higher unemployment at the time of labor market entry on women's labor force participation using official household survey data for a similar set of Latin American countries. This replication is reassuring given that employment out-

[1] We focus on choices across broad occupation types—salaried work, entrepreneurship, or small-scale farming. In contrast, Grenet et al. (2024) study how parental job loss in construction and manufacturing in Sweden affects students' sectoral specialization choices in high school.

comes are not the primary focus of Latinobarómetro, a survey designed mainly to study political attitudes.

The paper contributes to three main literatures. First, we contribute to the literature on scarring effects by providing evidence on occupational scarring, an outcome that has received limited attention. In contrast to findings for the United States (Hacamo and Kleiner, 2022), where early-career exposure to higher unemployment increases business ownership, we show that in Latin America it reduces the likelihood of entrepreneurship, particularly among individuals from disadvantaged backgrounds. Additionally, we establish a previously unexplored scarring effect on the probability of remaining in small-scale farming.

Within the scarring effects literature, we also contribute to the growing set of studies on heterogeneous effects by social origin (Bono and Morando, 2021; Kaila et al., 2025), which has primarily focused on developed economies, with few exceptions (Petreski et al., 2017). While extensive research documents the negative consequences of entering the labor market during a recession (Raaum and Røed, 2006; Genda et al., 2010; Kahn, 2010; Oreopoulos et al., 2012; Altonji et al., 2016; Schwandt and Von Wachter, 2019, 2020; Huckfeldt, 2022), evidence from developing countries—particularly Latin America—remains scarce (Berniell et al., 2023).

Second, we contribute to research on inequality and economic mobility in Latin America by identifying an additional mechanism through which intergenerational dynamics sustain persistent inequality in the world's most unequal region (Behrman et al., 2001; Ferreira et al., 2012; Brunori et al., 2023; de La Mata et al., 2023; Neidhöfer et al., 2024). It is well established that inequality in early-life conditions and in the quality of formal education have strong impacts on long-run outcomes of individuals in the region, and in this way contribute to the intergenerational reproduction of inequality (Berlinski et al., 2008; Maluccio et al., 2009; Dominguez and Ruffini, 2023; Parker and Vogl, 2023). Our results highlight how the mechanics of inequality reproduction operate also later in life, after individuals finish their formal education and enter the labor market.

Third, we contribute to the literature on the link between inequality, structural transformation, and growth. One classic strand in this literature consists of theoretical models showing how initial inequality persists in the long-run and lowers output per capita (Banerjee and Newman, 1993; Galor and Zeira, 1993). A second classic strand employs country-level data to empirically study the association between inequality and growth (Banerjee and Duflo, 2003; Lundberg and Squire, 2003; Easterly, 2007; Berg and Ostry, 2017). We help bridge these two literatures by employing micro-level data to identify a specific channel through which high initial inequality reproduces itself.

The remainder of the paper proceeds as follows. Section 2 introduces the data, Sec-

tion 3 details the empirical strategy, Section 4 presents descriptive evidence, Section 5 reports the main results, and Section 6 concludes.

2 Data

The main data source is the Latinobarómetro survey, an annual cross-sectional survey conducted in 18 Latin American countries. From this survey, we obtain information on individuals' age, sex, and education, as well as our two main labor market outcomes: unemployment status and occupation type. The survey allows us to classify occupations into four categories: salaried workers, subsistence self-employed, small-scale farmers, and business owners. Small-scale farmers and self-employed individuals are defined as those who do not employ salaried workers, while business owners are those who do. In addition to Latinobarómetro, we use national unemployment rates from the World Bank to capture labor market conditions at the time individuals enter the labor market.

We use Latinobarómetro instead of official household surveys because it provides information on the maximum level of education attained by an individual's parents, which we use to measure social origin. In addition, it asks respondents the age at which they completed their formal education, allowing for a robustness check in which the unemployment shock is measured at that age. The sample includes individuals born between 1973 and 1987 who were aged 27–30 between 1998 and 2017 in Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. Given the ages at which we evaluate the unemployment shock (18–20) and the employment outcomes (27–30), these cohorts and survey years constitute the largest possible balanced panel subject to three constraints. First, 1998 was the first Latinobarómetro wave to include information on parental education. Second, 2017 is the last pre-COVID-19 wave featuring that variable together with respondents' detailed educational attainment. Third, national unemployment data from the World Bank are available from 1991 onward.

When we use the reported age of study completion as an alternative measure of labor market entry, several adjustments are required. Roughly 23% of individuals report leaving school before age 16. For these individuals, we assign an entry age of 16. For the remaining sample, we establish education-specific intervals: 16 for basic education, 16–20 for secondary, 17–25 for incomplete tertiary, and 18–28 for completed tertiary. For the 15% of individuals reporting ages outside these intervals, we impute the closest bound (minimum or maximum). For the 10% with missing data on completion age, we assign the median age of school completion by country and education level. Table A.1

in the Appendix shows the average declared age of school completion in the survey and how these ages translate into an age of labor market entry after these adjustments.

3 Empirical Strategy

We estimate the standard equation in scarring effects papers that pool several cross-sections of surveys (Burgess et al., 2003; Raaum and Røed, 2006; Schwandt and Von Wachter, 2019; Berniell et al., 2023):

$$Y_{ict} = \alpha + \beta * U_{ic}^{0} + \gamma * X_{ict} + \delta_{ct} + \varepsilon_{ict} \tag{1}$$

where Y_{ict} denotes the labor outcome of individual i in country c and survey year t. U_{ic}^{0} is the unemployment rate at the time of labor market entry, expressed as a percentage. The vector X_{ict} includes binary indicators for sex, age, seven education levels for the individual, and the same seven levels for the highest education attained by her parents. δ_{ct} represents country–year fixed effects. Standard errors ε_{ict} are clustered at the country–year level to account for common shocks.

The dependent variables Y_{ict} are binary labor outcomes, including labor market participation, employment, unemployment, and the four occupational categories. These variables are multiplied by 100 so that regression coefficients can be interpreted as percentage-point changes in the probability of each outcome.

Including country–year and age fixed effects implies that identification relies on differences in the unemployment rate faced by different cohorts within the same country and survey year, conditional on age, sex, and education attainment. The causal interpretation of β in Equation 1 requires that the unemployment rate at labor market entry be orthogonal to unobserved determinants of each outcome.

In our benchmark specification, we follow Arellano-Bover (2020) in evaluating the unemployment shock at a predetermined age of labor market entry rather than using a self-reported one. Specifically, we adopt the 18–20 age range employed by Berniell et al. (2023) in their analysis of scarring effects by gender in Latin America. They note that 18 is the theoretical age for completing secondary education, which is compulsory in most countries in the region. Additionally, we conduct a robustness check in which the age of labor market entry is based on the self-reported age at completion of formal education in Latinobarómetro.

We also follow Berniell et al. (2023) in setting ages 27–30 as the window for evaluating outcomes. Evaluating outcomes at later ages would be desirable, but it substantially reduces the sample size under a balanced-panel specification. Evaluating them at earlier ages, in turn, would imply that many individuals have not yet consolidated their labor

market status or career paths. As a robustness check, we relax the balanced-panel restriction and confirm that our results hold when outcomes are evaluated at ages 25–35.

Our main focus is on the heterogeneous effect of unemployment rates at labor market entry by socioeconomic origin, proxied by parental education. To examine this, we estimate a specification that interacts the unemployment rate at the time of labor market entry U_{ic}^0 with a binary indicator for whether at least one parent completed secondary education.

4 Descriptive Statistics

Table 1 presents labor market outcomes by socioeconomic origin. Unemployment rates are about one percentage point higher for individuals of lower relative to higher social origin. Differences by social origin are more pronounced in terms of occupation, particularly in the much larger share of subsistence self-employment and small-scale farming among individuals from lower-origin backgrounds.

In our balanced-panel design, unemployment at labor market entry is measured between 1991 and 2007. Table 2 reports the minimum, average, and maximum unemployment rates for each country during this period, separately for men and women. The difference between the cross-country averages of minimum and maximum unemployment rates is 4.4 percentage points for men and 5.6 for women. Argentina exhibited some of the most extreme fluctuations, with unemployment ranging from 5.2% to 20.1% for men and from 5.8% to 22.2% for women. The lowest unemployment rates were observed in Bolivia, with an average of only 2.3% for men and 3.6% for women.

Table A.2 in the Appendix reports summary statistics on sociodemographic characteristics for each country and for the cross-country average. Women slightly outnumber men, the average respondent is 37.5 years old, and about 60% of individuals did not complete high school. Educational attainment varies considerably across countries, with Chile and Peru showing the highest levels. Parents' educational attainment is substantially lower than that of their children, reflecting the major expansion of formal education in Latin America over recent decades (Berniell et al., 2016).

5 Results

Table 3 presents the estimated effects of unemployment at labor market entry on labor force participation, employment, and occupational categories ten years later. We find that entering the labor market during periods of high unemployment in Latin America has persistent and sizable effects on employment prospects.

The first set of outcomes we analyze includes participation, employment, and unemployment. The first three columns of Panel A of Table 3 show that early-career unemployment increases labor force participation and employment ten years later. Table A.3 in the Appendix shows that these effects are driven mainly by women, which aligns with Berniell et al. (2023)'s finding. They attribute this result to a persistent added-worker effect. This effect refers to a non-economically active secondary worker—usually women but also young family members—responding to job or income losses of the main family earner by entering the labor market, and is well-documented in Latin America (Parker and Skoufias, 2004; Fernandes and Felício, 2005; Serrano et al., 2019). In a region characterized by large gender gaps in labor force participation, young women increase their labor market attachment in response to adverse shocks, and our evidence, together with Berniell et al. (2023)'s, shows that this adjustment persists over time.

The positive effect on labor force participation in Table 3 also appears for men, but the point estimate is about half the magnitude observed for women. This result joins recent evidence from developed countries that added-worker effects are not exclusive to women and exist among men, although with much lower magnitudes (Guner et al., 2025). The effect on employment is not statistically significant for men. The strong magnitudes of the effect on labor force participation are consistent with weak or nonexistent unemployment insurance mechanisms in the region, a policy tool that typically diminishes the strength of added-worker effects (Cullen and Gruber, 2000).

Panel B of Table 3 presents separate effects for individuals of low and high socioeconomic origin. Both low- and high-origin individuals experience higher participation and employment at ages 27-30 following adverse entry conditions, but with a key difference. For high-origin individuals, the effects on participation and employment are of very similar magnitude, resulting in no effect on unemployment. In contrast, among those of low origin, the effect on employment is smaller than that on participation, resulting in higher unemployment rates. The contrast in unemployment effects between low- and high-origin individuals is statistically significant, with a p-value of 0.002 for a test comparing the two coefficients. The effect on unemployment among those of lower social origin is also quantitatively significant. A 5-percentage-point increase in the national unemployment rate faced at ages 18–20, a shock that occurred in at least half of the countries in our sample, raises the probability that the individual is unemployed at ages 27–30 by about 1.8 percentage points. This is a sizable effect given the 10.2% average unemployment rate in our Latinobarómetro data (see Table 1).

The finding of negative scarring effects focused on individuals of lower social origin joins similar evidence from developed countries (Bailey and Dynarski, 2011; Oreopoulos et al., 2012; Crawford, 2014; Macmillan et al., 2015; Bono and Morando, 2021; Kaila

et al., 2025). The persistence of scarring effects among individuals of lower social origin in Latin America contrasts with the short-lived impacts documented for the United States (Altonji et al., 2016; Schwandt and Von Wachter, 2019) and aligns instead with evidence from Japan (Genda et al., 2010), Norway (Raaum and Røed, 2006), Spain (Fernández-Kranz and Rodríguez-Planas, 2018), and the United Kingdom (Burgess et al., 2003). As emphasized by Raaum and Røed (2006), cross-country differences in wage rigidity help explain this pattern, with workers in the United States accepting lower wages after recessions, while those in more rigid labor markets face unemployment instead.

In terms of mechanisms, we show negative scarring effects conditional on individuals' education. This suggests that parents influence their offspring's labor outcomes beyond their investments in human capital. Parents' actions include providing information and contacts, even securing a job at the firm where they work (Corak and Piraino, 2011; Kramarz and Skans, 2014).[2] Additionally, parents may provide material resources following an adverse shock, including housing (Kaplan, 2012; Martinez-Mazza, 2025), allowing for a longer and more effective job search period.

The second set of results refers to scarring effects on occupational choices, an aspect that has received far less attention in the literature. Starting with business ownership, the sign of the effect is theoretically ambiguous: distressed labor markets can encourage entrepreneurship by reducing the attractiveness of wage work, but recessions can also restrict access to the financial resources needed to start a business. This second mechanism is expected to dominate in settings with severe credit constraints and limited family wealth, precisely the case for low-origin individuals in developing countries.

Table 3 shows that a 5-percentage-point increase in unemployment at ages 18–20 reduces the probability of business ownership at ages 27–30 by almost 3 percentage points among individuals of low social origin. The point estimate is also negative for high-origin individuals but not statistically significant at conventional levels and statistically different from the estimate we obtain for low-origin individuals. This differential result supports the financial-constraint mechanism and contrasts with findings for the United States by Hacamo and Kleiner (2022), who document that college graduates entering the labor market during recessions are more likely to become entrepreneurs. The counterpart to the decline we find in business ownership is a higher probability of salaried employment among individuals of low relative to high social origin. Although the positive point estimate in Table 3 for salaried work among the low-origin group is not individually significant, it is statistically different from the coefficient for high-origin individuals.

Regarding the remaining two occupational categories, we find no effects on the like-

[2]Kaila et al. (2025) show that in Finland, children with high-income parents are more likely to secure employment at the same firm where their parents work.

lihood of subsistence self-employment, but we detect a strong increase in the probability of being a small-scale farmer. This result is consistent with a Harris–Todaro type of mechanism, in which high urban unemployment reduces migration incentives, leading individuals to remain in rural areas. The persistence of this effect suggests that unemployment at the time of labor market entry not only delays migration but also influences permanent occupational choices, limiting structural transformation. Although this pattern appears for both low- and high-origin individuals, the average effect is in fact driven by the former group given the negligible share of high-origin individuals in small-scale farming (see Table 1).

The overall consideration of the results on employment and occupational categories indicates that early-career exposure to higher unemployment increases the participation and employment rates of both low- and high-origin individuals, but in a highly asymmetric manner. High-origin individuals work more but without changes in their unemployment probability or occupation profile.[3] This is consistent with their parental networks, income, and wealth providing support that insulates their labor market outcomes from negative shocks. In sharp contrast, early labor market conditions strongly shape the prospects of workers of low origin. When they face a weak labor market at the start of their careers, ten years later they are more likely to be unemployed and exhibit an occupational profile with a lower probability of being business owners and a higher probability of being salaried workers or small-scale farmers.

The impacts we find on individuals' occupational profiles depending on parental socioeconomic background link three traditional characteristics of Latin American economies: high inequality, macroeconomic instability, and difficulty in sustaining structural transformation and economic growth. While these three dimensions are interrelated in many ways, we provide evidence highlighting a relatively unexplored connection. We show that the interplay of macroeconomic instability and inequality impacts structural transformation (i.e., lower business ownership and slower rural-urban transition) and reinforces inequality. The relevance of this link is highlighted by the period in which our sample entered the labor market (1991–2007), which included several episodes of unemployment shocks due to macroeconomic instability and trade reforms with high, and in many countries increasing, inequality (Gasparini and Lustig, 2011).

Robustness exercises. We conduct two main robustness checks to reinforce the validity of our findings. Both cases involve relaxing the balanced-panel restriction, thereby expanding the set of cohorts considered.

First, in Table 4, we change the ages at which we evaluate outcomes and report similar

[3] Although there is a higher farming employment share, this represents less than 1% of their employment (see Table 1).

results when examining individuals at ages 25–35. In this first alternative specification the effect on unemployment remains positive and significant only for individuals from low socioeconomic origins (0.39pp), while business ownership declines by 0.44 points and the probability of remaining in small-scale farming increases by 0.27 points for these individuals. The corresponding effects for higher-origin individuals are only significant for the probability of being a farmer, similarly to Table 3.

Second, in Table 5, we employ a different age window for exposure to unemployment shocks by leveraging Latinobarómetro's question on individuals' self-reported age at school completion. Our findings remain robust when using this alternative definition of labor market entry age. The unemployment effect is again positive and statistically significant only for individuals from low socioeconomic origins, while no significant effect is observed for higher-origin individuals. Business ownership declines by 0.31 points among low-origin individuals, whereas the corresponding coefficient for higher-origin individuals is not statistically significant. The probability of remaining in small-scale farming increases by 0.29pp for low-origin individuals and by 0.56pp for high-origin individuals.

Overall, the consistency of results across these alternative specifications reinforces the conclusion that our findings are not driven by a particular definition of exposure or outcome timing.

6 Concluding Remarks

We provide new evidence that scarring effects in Latin America substantially worsen the employment prospects of individuals from lower socioeconomic origins, with consequences that extend well beyond short-run labor market outcomes. Exposure to high unemployment early in the labor market career generates persistent differences in occupational trajectories, shaping paths that are difficult to reverse later in life. These dynamics highlight a novel mechanism through which high inequality persists in the region: adverse macroeconomic conditions do not affect individuals symmetrically, but instead interact with pre-existing socioeconomic disparities to amplify long-term inequality.

Even conditional on their own educational attainment, low social origin individuals face higher long-term unemployment and a reduced likelihood of transitioning into more dynamic and productive occupations. As a result, inequality is not only transmitted across generations through differences in initial endowments, early-life conditions, and formal education, but also actively reproduced through differential recovery from macroeconomic instability.

Importantly, our findings show that these scarring effects operate along key margins

of structural transformation. Higher unemployment rates at the time of labor market entry reduce transitions into business ownership and increase the likelihood of remaining in subsistence agriculture, particularly among individuals from disadvantaged backgrounds. These occupational responses could translate into lower rates of capital accumulation, reduced entrepreneurial activity, and slower movement away from low-productivity sectors. Through this channel, macroeconomic volatility and inequality jointly constrain structural transformation, linking individual labor market histories to broader patterns of economic development and persistent inequality in the region.

Our results relate to two aspects in terms of economic policies. First, given the large body of research demonstrating the effectiveness of active labor policies in Latin America (Attanasio et al., 2017; Escudero et al., 2019; Ibarrarán et al., 2019; Novella and Valencia, 2022; Le Barbanchon et al., 2023; Yeyati et al., 2025), our findings suggest additional long-term benefits of targeting these interventions toward disadvantaged individuals, particularly during economic downturns. Second, the persistence of unemployment effects further highlights the need for stronger social protection systems for working-age individuals. While many countries in the region have expanded non-contributory cash transfers for children and the elderly, effective protection for the unemployed remains limited (Alves et al., 2021).

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Tables and Figures

Table 1: Labor Participation, Unemployment, and Employment Category by Parental Education, 1998–2017.

	Parental Education		Total
	Low	High	
Labor participation (%)	71.6	79.0	73.5
Unemployment rate (%)	10.5	9.5	10.2
Employee (%)	50.3	68.4	55.3
Business owner (%)	10.6	11.1	10.7
Small farmer (%)	7.5	0.9	5.6
Self-employed (%)	31.7	19.6	28.3

Notes: "Low" parental education corresponds to less than complete secondary, including illiterate individuals. "High" parental education refers to at least complete secondary education, including incomplete or complete tertiary studies. *Source*: Authors' calculations based on Latinobarómetro data.

Table 2: Unemployment Rates by Country. 1991-2007.

	Male			Female		
	Min	Mean	Max	Min	Mean	Max
Argentina	5.2	11.9	20.1	5.8	15.1	22.2
Bolivia	2.1	2.3	2.5	3.4	3.6	3.7
Brazil	5.2	6.7	8.2	7.5	10.7	13.3
Chile	3.9	7.0	10.1	5.1	9.6	13.1
Colombia	5.4	10.1	17.5	11.3	16.8	25.1
Costa Rica	3.2	4.6	5.8	5.0	7.2	9.3
Dominican Rep.	3.8	4.4	5.3	9.8	10.6	11.3
Ecuador	2.6	3.8	5.4	4.7	6.1	6.5
El Salvador	7.4	8.6	11.7	3.2	5.2	7.1
Guatemala	2.4	2.5	2.8	3.3	3.4	3.5
Honduras	2.7	3.7	4.8	2.9	4.5	8.3
Mexico	2.1	3.3	6.2	3.4	4.9	8.9
Nicaragua	4.8	6.9	7.5	5.8	7.7	8.1
Panama	2.7	3.0	3.1	4.9	5.1	5.2
Paraguay	3.5	6.9	8.0	6.3	11.0	12.0
Peru	3.5	5.3	5.8	4.6	5.6	6.1
Uruguay	6.8	8.7	13.4	11.9	14.6	21.0
Venezuela	7.0	10.5	14.6	5.7	13.3	20.5
Mean	4.1	6.1	8.5	5.8	8.6	11.4

Source: World Bank.

Table 3: Effect of Unemployment at Labor Market Entry on Labor Outcomes. Benchmark estimation.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Participation	Employment	Unemployment	Occupation Category			
				Employee	Self-employed	Farmer	Business Owner
Panel A: Average Effects							
	1.16***	0.92***	0.27	0.29	-0.37	0.59***	-0.51**
	(0.22)	(0.23)	(0.19)	(0.29)	(0.29)	(0.13)	(0.24)
Panel B: Effects by Socioeconomic Origin							
Low	1.10***	0.81***	0.37*	0.42	-0.36	0.53***	-0.59**
	(0.23)	(0.23)	(0.19)	(0.29)	(0.31)	(0.13)	(0.24)
High	1.39***	1.33***	-0.04	-0.08	-0.40	0.76***	-0.28
	(0.25)	(0.27)	(0.20)	(0.33)	(0.29)	(0.14)	(0.27)
Low = High (p-value)	0.070	0.003	0.002	0.011	0.794	0.003	0.032
Observations	22,845	22,845	16,799	15,085	15,085	15,085	15,085

Notes: Estimates follow the specification in Equation 1. Outcomes are measured at ages 27–30, and unemployment shocks correspond to the average unemployment rate when the individual was 18–20 years old. The estimation sample includes only cohorts with available unemployment data for all years in which they were aged 18–20 and outcome data for all years in which they were aged 27–30, yielding a balanced panel. Controls include indicators for sex, age, and seven education categories, separately for the individual and for her parents. Low social origin refers to parents with less than complete secondary education, while high social origin refers to parents with at least complete secondary education (including tertiary). Dependent variables are multiplied by 100, so coefficients can be interpreted as percentage-point changes in the probability of each outcome. Robust standard errors, clustered by country–year, are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. *Source*: Authors' calculations using Latinobarómetro data and World Bank unemployment rates.

Table 4: Effect of Unemployment at Labor Market Entry on Labor Outcomes. Outcomes at ages 25-35.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Participation	Employment	Unemployment	Occupation Category			
				Employee	Self-employed	Farmer	Business Owner
Panel A: Average Effects							
	0.72***	0.57***	0.17**	0.11	-0.22*	0.40***	-0.29***
	(0.12)	(0.11)	(0.08)	(0.13)	(0.12)	(0.07)	(0.10)
Panel B: Effects by Socioeconomic Origin							
Low	0.46***	0.29***	0.27***	0.20	-0.17	0.29***	-0.31***
	(0.11)	(0.11)	(0.08)	(0.13)	(0.13)	(0.07)	(0.10)
High	0.99***	0.98***	-0.08	-0.14	-0.33***	0.56***	-0.09
	(0.14)	(0.14)	(0.09)	(0.15)	(0.13)	(0.07)	(0.11)
Low = High (p-value)	0.000	0.000	0.000	0.011	0.130	0.000	0.011
Observations	61,733	61,733	44,826	40,355	40,355	40,355	40,355

Notes: Estimates follow the specification in Equation 1. Outcomes are measured at ages 25–35, and unemployment shocks correspond to the average unemployment rate when the individual was 18–20 years old. Controls include indicators for sex, age, and seven education categories, separately for the individual and for her parents. Low social origin refers to parents with less than complete secondary education, while high social origin refers to parents with at least complete secondary education (including tertiary). Dependent variables are multiplied by 100, so coefficients can be interpreted as percentage-point changes in the probability of each outcome. Robust standard errors, clustered by country–year, are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. *Source*: Authors' calculations using Latinobarómetro data and World Bank unemployment rates.

Table 5: Effect of Unemployment at Labor Market Entry on Labor Outcomes. Entry proxied by the last year of education.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Participation	Employment	Unemployment	Occupation Category			
				Employee	Self-employed	Farmer	Business Owner
Panel A: Average Effects							
	0.62***	0.37*	0.27*	-0.13	0.14	0.35***	-0.36**
	(0.18)	(0.19)	(0.14)	(0.23)	(0.23)	(0.10)	(0.16)
Panel B: Effects by Socioeconomic Origin							
Low	0.54***	0.24	0.39***	0.07	0.10	0.27***	-0.44***
	(0.20)	(0.20)	(0.15)	(0.24)	(0.25)	(0.10)	(0.16)
High	0.78***	0.66***	0.05	-0.47*	0.21	0.48***	-0.21
	(0.21)	(0.23)	(0.15)	(0.26)	(0.24)	(0.10)	(0.19)
Low = High (p-value)	0.132	0.0150	0.00900	0.00700	0.557	0.00300	0.125
Observations	21,216	21,216	15,675	14,106	14,106	14,106	14,106

Notes: Estimates follow the specification in Equation 1. Outcomes are measured at ages 27-30, and unemployment shocks correspond to the year when the individual declared having finished her formal education. Controls include indicators for sex, age, and seven education categories, separately for the individual and for her parents. Low social origin refers to parents with less than complete secondary education, while high social origin refers to parents with at least complete secondary education (including tertiary). Dependent variables are multiplied by 100, so coefficients can be interpreted as percentage-point changes in the probability of each outcome. Robust standard errors, clustered by country–year, are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. *Source*: Authors' calculations using Latinobarómetro data and World Bank unemployment rates.

A Online Appendix

Table A.1: Average age of school completion and of labor market entry.

	Age of school completion			Age of labor market entry		
	Male	Female	Total	Male	Female	Total
Basic Incomplete	13.2	12.7	12.9	16.0	16.0	16.0
Basic Complete	14.3	14.0	14.2	16.0	16.0	16.0
Secondary Incomplete	17.1	16.9	17.0	17.2	17.1	17.1
Secondary Complete	19.0	18.8	18.9	18.3	18.2	18.2
Tertiary Incomplete	21.5	21.0	21.3	20.8	20.6	20.7
Tertiary Complete	24.4	23.9	24.2	23.9	23.3	23.6
Total	17.5	17.0	17.3	18.0	17.7	17.9

Note: Averages in the first three columns correspond to the raw data reported in the survey. The age of labor market entry is obtained from the declared age of school completion in the following way: 1 - setting a minimum of 16, 2 - setting a series of minimums and maximums for each education level as follows: 16 is the maximum for incomplete or complete basic education, and ages must be between 16 to 20 for incomplete or complete secondary education, 17 to 25 for incomplete tertiary education, and 18 to 28 for completed tertiary. When the reported school completion age falls below this range, we impute the minimum of the interval; if it falls above, we impute the maximum. *Source*: Latinobarómetro.

Table A.2: Descriptive Statistics by country. 1998-2017.

	% Male	Age	% Low Education	
			Own	Parent
Argentina	48.9	28.5	39.5	66.7
Bolivia	48.5	28.5	45.3	72.2
Brazil	50.8	28.6	56.0	81.9
Chile	48.1	28.5	22.1	52.2
Colombia	47.2	28.5	45.4	74.0
Costa Rica	50.5	28.5	67.4	77.8
Dominican Rep.	48.1	28.6	60.8	78.1
Ecuador	48.4	28.5	43.3	73.5
El Salvador	49.2	28.5	68.1	85.6
Guatemala	47.0	28.5	81.1	91.3
Honduras	47.7	28.6	80.2	89.9
Mexico	48.7	28.5	45.9	67.1
Nicaragua	46.0	28.5	77.7	83.6
Panama	46.5	28.5	51.2	70.5
Paraguay	49.3	28.6	50.4	82.9
Peru	46.9	28.5	33.7	54.2
Uruguay	51.7	28.5	62.7	75.3
Venezuela	48.4	28.6	36.2	66.1
Total	48.4	28.5	53.1	74.3

Notes: Low education is less than complete secondary. Includes illiterate individuals, incomplete primary, complete primary, and incomplete secondary. *Source*: Latinobarómetro.

Table A.3: Effects by Gender

	(1) Labor Part.	(2) Employment	(3) Unemployment
Men	0.57*	0.37	0.16
	(0.31)	(0.34)	(0.27)
Women	1.1***	0.86***	0.26
	(0.22)	(0.23)	(0.19)
Observations	22,845	22,845	16,799

Notes: Estimates follow the specification in Equation 1. Dependent variables are multiplied by 100, so coefficients can be interpreted as changes in percentage points in the probability of each outcome. Robust standard errors clustered by country–year are in parentheses. Controls are binary variables for age and seven education categories for the individual and the same for parental education. The separate estimates for men and women are obtained by interacting the unemployment rate with a binary variable indicating gender. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. *Source*: Authors' calculations using Latinobarómetro data and World Bank unemployment rates.