# OUT OF
# SCHOOL
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# WORK

## Risk and Opportunities for Latin America's *Ninis*

Rafael de Hoyos
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**This report and the associated background papers can be accessed digitally at https://openknowledge.worldbank.org/handle/10986/22349.**

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# Acknowledgments

# About the Authors

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He has lectured on development economics for Latin America at El Colegio de México, ITAM, and the University of Oxford. He is a specialist in education, social policy, and public policy evaluation. He has authored 80 academic publications, including 9 books, 29 refereed articles in academic journals, and 42 chapters in edited volumes.

# Abbreviations

| | |
|---|---|
| ECD | early childhood development |
| ENOE | Encuesta Nacional de Ocupación y Empleo |
| GDP | gross domestic product |
| GIDD | Global Income Distribution Dynamics |
| PES | public employment services |
| RCT | randomized controlled trial |
| SEDLAC | Socio-Economic Database for Latin America and the Caribbean |

# 1. Introduction

Throughout Latin America, youth who are neither working nor in school are often labeled *ninis*, from the Spanish phrase "*ni estudia ni trabaja.*"[1] One in five youth in the region—totaling more than 20 million people aged 15–24—is living as a nini.[2] Moreover, the problem has proven very persistent. Despite the strong economic performance of Latin America during the 2000s—with vibrant economic growth and a significant reduction in poverty and inequality—the proportion of ninis fell only marginally, and the number of ninis actually increased.

There are three main reasons why governments throughout Latin America—and beyond them, society as a whole—should care about the nini problem:

- *It contributes to the intergenerational persistence of inequality.* Nearly 60 percent of ninis in the region are from poor or vulnerable households in the bottom 40 percent of the income distribution,[3] and 66 percent are women. Coupled with long-lasting harm to labor-market performance, these imbalances tend to lock in gender disparities and low incomes from one generation to the next, obstructing social mobility and poverty reduction in the region.
- *It is linked to crime and violence, in some contexts.* In Colombia, Mexico, and Central America, where the share of ninis is above the regional average, the problem is compounded by the widespread presence of organized crime. In such environments, new evidence shows that the nini problem is correlated with crime and violence, heightening risks for the youth and for society as a whole.
- *Failing to address the problem of ninis in Latin America could prevent the region from exploiting an emerging demographic window of opportunity.* Throughout the region, the proportion of children and

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[1] Whereas Spanish-speaking Latin American countries refer to them as "ninis," Brazilians apply the term "nem-nem" from the Portuguese "nem estuda, nem trabalha." The related acronym "NEET"—referring to a young person who is not in education, employment, or training—is more commonly used in Europe and East Asia.

[2] Because of data availability, this report focuses primarily on Latin America and covers only one country in the Caribbean, the Dominican Republic. For brevity, we therefore use the term Latin America throughout the report, rather than "Latin America and the Caribbean." Scaling up the most recent (2013) survey-based estimate of 17.7 mllion ninis to cover all countries yields an estimated 20.8 million ninis for the Latin American and Caribbean region as a whole in 2015.

[3] This bottom 40 percent is the focus of the World Bank's "shared prosperity" goal. Following the broader definition of vulnerable households used by Ferreira et al. (2013), 68 percent of the population in Latin America is either poor or vulnerable.

seniors relative to the working-age population will soon reach a historical low. As other regions have shown, low dependency ratios create great economic opportunity. But to take advantage of this window, Latin America must provide human capital and labor market opportunities to its growing population of young adults. If it does not, the growing number of ninis may prevent the region from earning its full demographic dividend.

This study aims to provide policy makers in the region with analysis of the nini issue and options for addressing it in their countries. To do so, the study undertakes a comprehensive diagnosis quantifying the problem, develops a conceptual framework identifying the determinants of youths' choices, uses all the available data to test the theoretical implications, and reviews the evidence regarding interventions that have proven effective in keeping youth in school and helping them become employed. The study has five essential messages:

1. One in five youth aged 15–24 in Latin America is out of school and not working. Between 1992 and 2010, ninis' share of the young population decreased only marginally and their absolute number increased by about 2 million.
2. The typical Latin American nini is a woman with incomplete secondary education who lives in an urban household in the bottom 40 percent of the income distribution. Women account for two thirds of the region's nini population, and among this group the single most important risk factor associated with their condition is marriage before age 18, compounded by teenage pregnancy.
3. At the same time, it is men who have accounted for all of the growth in the number of ninis in the region. As female labor participation increases in a time of limited employment creation, men are finding it more difficult to secure jobs. During the last 20 years, both the share and the absolute number of male ninis increased.
4. The most common path to becoming a nini, particularly for men, is through early school dropout into the labor market, followed by unemployment. Since youth who leave school before finishing upper secondary generally lack the skills to secure a formal-sector job, in most cases they settle for temporary and unstable jobs in the informal sector. Once they lose these jobs, they never go back to school.
5. There are effective interventions to reduce school dropout rates and improve the employability of ninis. Countries in Central America, which have relatively high dropout rates in lower secondary, can design

well-targeted conditional cash transfers with information modules to inform students and their parents about the benefits of education. South American countries and Mexico, which have relatively high dropout rates in upper secondary, can combine early warning systems to identify youth at risk of dropping out with targeted socio-emotional interventions and tutoring. Well-designed, evidence-based training and entrepreneurship programs along with active public employment services can improve youths' employability.

The rest of this document summarizes the findings of six background papers written for this study, woven into an overall narrative on ninis.[4] As part of the motivation, de Hoyos, Gutiérrez, and Vargas (2015) offer new evidence on the relationship between ninis and criminality in Mexico. Next, using a collection of 238 standardized household surveys for countries in the region spanning the years 1990–2010, de Hoyos, Rogers, and Popova (2015) provide quantitative evidence on how serious the ninis phenomenon is, and how it has evolved over the past 25 years. Behrman, de Hoyos, and Székely (2015) develop a theoretical framework for explaining why and under what circumstances a substantial share of the youth population would remain out of school and out of the workforce. This framework guides an empirical analysis that uses two complementary strategies. First, based on the 238 standardized household surveys, Székely and Karver (2015) construct synthetic panels to identify the determinants of nini status and its effects over the life cycle throughout the region. Second, employing short-lived rotating panel data of individuals, Barón, Popova, and Sánchez-Diaz (2015) estimate the determinants of education and labor market dynamics in Mexico. These quantitative analyses are complemented by in-depth interviews of ninis in Mexico and Honduras. Finally, Almeida, Fitzsimons, and Rogers (2015) review programs that can prevent youth from becoming ninis, documenting their impacts and the causal mechanisms for those impacts. Combining the theoretical framework, our own empirical findings, the qualitative exercise, and an assessment of the effectiveness of existing programs, the study is well positioned to recommend policy options that can be tailored to specific countries and contexts.

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[4] The background papers are all available at https://openknowledge.worldbank.org /handle/10986/22349.

## 2. Why Everybody Should Care About Ninis

There is growing consensus that productivity and long-term economic growth depend on the quantity and quality of a society's human capital, which are necessary both to fuel innovation and to adapt new technologies (Hanushek and Woessmann 2008). An amassing of human capital across the population will not only spur overall economic growth but will shape the future distribution of income and bring opportunities for low-income households to improve their standing.

The converse is also true: When a significant share of the population is not accumulating human capital, it can hinder the country's economic growth and poverty reduction. Youth who drop out of school and stop accumulating human capital end up with lower wages and poorer job prospects, patterns that often mar their entire working lives. If they fail to find gainful work after dropping out, being unemployed compounds their problems. They often lose several years of labor market experience and earnings, setting back personal investments in health, continuing education, and other correlates of a stable life.

For most youth, these years of the life cycle are characterized by change and vulnerability, by the development of self-esteem and sense of belonging. They may need support from health services, specialized supervision, and specialized orientation. In sum, youth who are out of the education system and the workforce in these years may find it particularly hard to meet the challenges of life and fulfill their potential (Grogger 1997; Jacob and Lefgren 2003).

The empirical approach followed by Székely and Karver (2015) is well suited to estimating the long-term labor market effects of being a nini during adolescence. Using 238 standardized household surveys, the authors construct synthetic panels to verify whether age cohorts that had higher or lower shares of ninis register different labor market conditions at prime working age. The results show that the incidence of ninis indeed has long-lasting negative productivity effects, by lowering wages and employment opportunities throughout the life cycle of individuals and hampering overall economic growth. For any given cohort of male youth ages 15–20, a 1 percentage point increase in the proportion of ninis predicts a 7 percent reduction in earnings for that cohort 20 years later.[1] The nini "scarring" effect on women's wages is

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[1] This sounds like a very large effect—and it is—but note that the proportion of ninis varies only slightly over time, as we will see below.

somewhat smaller, at 3 percent, but women too suffer significant long-term effects: their likelihood of being employed at age 35–40 falls by half of a percentage point if they were ninis during adolescence.

The negative income effect of ninis not only reduces the overall output of the economy through a reduction in labor productivity (the engine of growth). It also harms equity. A higher incidence of ninis among poor and vulnerable households exacerbates existing inequalities and obstructs social mobility and poverty reduction over the long term (Ferreira et al. 2013; Vakis, Rigolini, and Lucchetti 2015).

The nini phenomenon also raises challenges to society as a whole in the short term by contributing to crime, addiction, disruptive behavior, and social disintegration, among other risks. Latin America's uneven distribution of income, weak institutional development, and strong presence of organized crime feeds this pattern (Chioda 2015). Many ninis get involved in criminal activities that do enormous harm to not only themselves but society's wellbeing. De Hoyos, Gutiérrez, and Vargas (2015) illustrate this damage. By combining data from Mexico's *Encuesta Nacional de Ocupación y Empleo* (*ENOE*) with the country's official statistics on murder rates, the authors create a state-level panel data set covering the period 1995–2013. Including most of the common controls identified by the literature, they show that the rate of male ninis age 19–24, in itself, is uncorrelated with homicide rates over the period as a whole. However, as shown in figure 2.1, the authors find that between 2008 and 2013—when murder rates in Mexico tripled—the share of ninis correlates significantly with murder rates. There is also a positive and significant correlation between ninis and homicide rates in states located along the border with the United States, a region particularly afflicted both by organized crime and the economic crisis of 2008–09 (Bussolo et al. 2014). A 1 percentage point increase in the share of ninis in a border state during a period characterized by a massive increase in violence is correlated with an increase of 2.59 in the homicide rate per 100,000 inhabitants.

These findings suggest that the link between ninis and violence in Mexico stems from a combination of three factors: a growing share of male ninis, a lack of employment opportunities for youth,[2] and changes in external conditions that increased the size of the illegal market and fueled criminal demand for youth labor. If the results for Mexico can be extrapolated to other parts of the region, then the prevalence of male *ninis* could also be

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[2]  Mexico's gross domestic product per capita fell 7.4 percent between 2008 and 2009, as result of the global financial crisis. Bussolo et al. (2014) show that the crisis had a particularly large and negative employment effect among youth in states located along the border with the United States.

correlated with violence in Central American countries such as Honduras, Guatemala, Panama, and El Salvador. By contrast, there would be little link between ninis and violence in countries such as Argentina, Uruguay, Chile, and Paraguay, which lack the other exacerbating factors.[3]

**Figure 2.1   Relationship Between Share of Male Ninis and Homicide Rates in Mexican States**
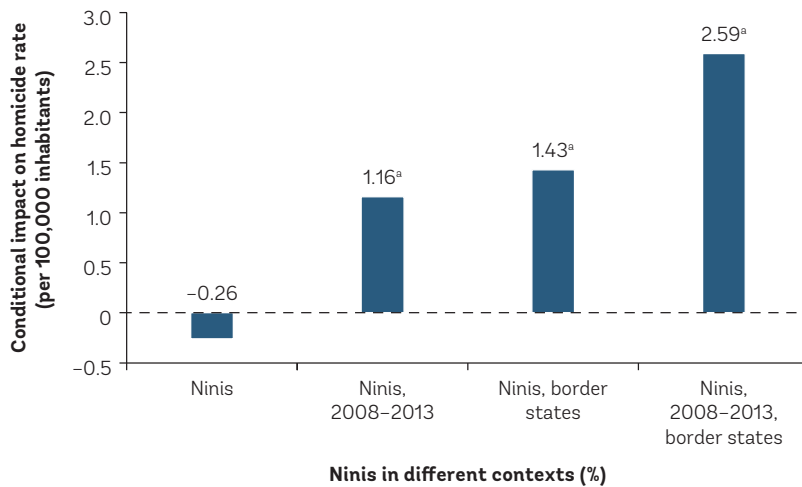


*Source*: de Hoyos, Gutierrez, and Vargas 2015.

*Note*: Figure shows the conditional increase in predicted homicide rate (per 100,000 inhabitants) for each 1 percentage point increase in the share of youth (aged 19–24) in each category as specified in the horizontal axis. The specification is a state-level fixed effects regression. Controls are the share of youth, real income, unemployment rate among adults aged 35–44, the Gini coefficient of labor income, the share of employment in manufacture and the high school dropout rates.
a. Significant correlation at the 95% confidence level.

Thanks to its demographics, Latin America faces a unique development opportunity during the next 20 years (2015–35, the period between the two vertical lines in figure 2.2). Global experience has shown that a low dependency ratio—meaning a high ratio of working-age population to overall population—on average accelerates economic growth (Bloom and Williamson 1998; Li, Zhang, and Zhang 2007). But whether the region takes full advantage of this opportunity will depend on each country's ability to provide human capital and labor market opportunities to its growing population of young adults (World Bank 2006). Countries that have education systems that can provide high-quality education to an increasing

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[3] To our knowledge, no comparable state-level analysis of the ninis' link to violence has been carried out for these countries.

young population and also have dynamic, well-functioning labor markets will grow and reduce poverty more rapidly during this period. If instead the region is not able to generate educational and employment opportunities for its youth, the opportunity will be lost, causing irreversible damage to productivity and long-term growth.

**Figure 2.2    Evolution of the Dependency Ratio, 1950–2050**
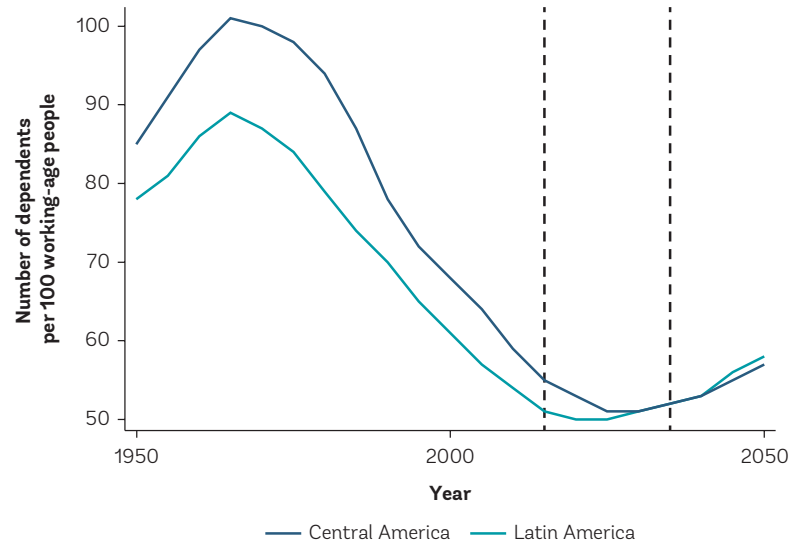


*Source*: Authors' calculations, using UN Population Division projections.

*Note*: The dependency ratio is defined as the ratio of the population aged 0–14 and 65 or more to the population aged 15–64.

# 3. How Broad Is the Nini Phenomenon, and Who Are the Ninis?

To address the issue of ninis, policymakers in the region must understand the breadth of the problem, whether it is growing or subsiding, and who the ninis are. Effective action depends on accurate diagnosis. To provide such a diagnosis, the study draws on micro data from 238 household surveys for 15 Latin American countries spanning the period 1992–2010.[1] For these country-years, we use harmonized data from SEDLAC, the Socio Economic Data Base for Latin America and the Caribbean (CEDLAS and The World Bank), supplemented by surveys assembled in Cárdenas, de Hoyos, and Székely (2015), which include comparable variables for school attendance, economic activity, and socio-demographic characteristics. The resulting quantitative description of the ninis in Latin America is enriched with a comparison with the prevalence and characteristics of ninis in other parts of the world. This newly expanded dataset allows an unprecedentedly complete portrait of the problem.

To establish the issue's magnitude in Latin America, the analysis begins by categorizing the population aged 15–24 in the region according to education and work status. The study defines ninis as individuals in the 15–24 age range who are neither enrolled in formal schooling (whether public or private) nor working at the time of being surveyed. Following the SEDLAC methodology, the category of "working" is defined quite liberally: working youth are individuals who have worked at least one hour in the reference period of the given survey (typically the past week), as well as those who are employed but have not worked during the reference period due to extraordinary circumstances (such as illness, strikes, or vacation).

Although the media tends to classify these youth as if they reflected a common problem, the term ninis lumps together a highly heterogeneous group. As shown in figure 3.1, out of the more than 92 million youth

[1] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, Panama, Paraguay, Peru, Uruguay, and República Bolivariana de Venezuela. Although for most of the analysis in this report the latest year included is 2010, more household surveys became available as the study was being completed. To confirm the report's findings, the key statistics presented here were updated to circa 2013, and all of the messages remain unchanged. The most recent statistics are included in country-specific briefs and are available from https://openknowledge .worldbank.org/handle/10986/22349.

**Figure 3.1** Number of Ninis in Latin America in 2010, by Gender, Out of Total Youth (Ages 15–24)



6 million
male ninis

12 million
female ninis

74.2 million
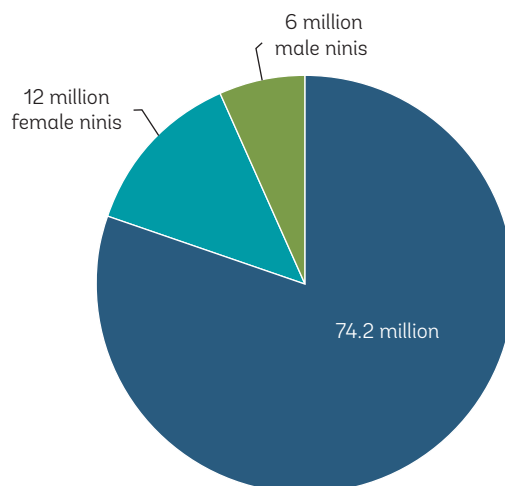
*Source*: de Hoyos, Rogers, and Popova 2015.

aged 15–24 in Latin America in 2010, a little over 18 million were both out of school and out of work.[2] This figure, calculated from the new augmented SEDLAC dataset, substantially exceeds another recent estimate of 14 million ninis in 2010 (Bassi et al. 2012). Here is how that overall number breaks down along key dimensions:

- *Gender and activity:* The 18 million ninis include 12 million women. Two thirds of them are still living with their parents and are not looking for a job. The remaining women have started a new household and already have children, and in most cases are not looking for a job either. Men make up only a third of the nini population, and almost all of them are still living with their parents, with close to half actively searching for work. These patterns contrast sharply with widespread media portrayal of ninis as idle young men who are involved in crime and violence.[3]

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[2] The figure of 18.2 million ninis in Latin America is based on household surveys circa 2010 for the 15 countries included in the study. This figure underestimates the true total in 2015 for three reasons: (i) several countries, especially in the Caribbean, are not included in our sample, (ii) the expansion factors in household surveys usually underestimate the total population, and (iii) the youth population of the region has increased since the latest survey year available. Adjusting for these three factors and assuming that the rate of ninis in the out-of-sample countries is the same as the one observed in the countries in our sample, the total number of ninis in the region in 2015 can be estimated at 20.8 million.

[3] An analysis of online and print media data sources in Mexico via Factiva shows that the ten most common words used in newspaper articles talking about ninis are the following (in order of importance): *educación* (education), *violencia* (violence), *jóvenes* (youth),

**Figure 3.2** **Number and Share of Ninis in Latin America, 1992–2010**
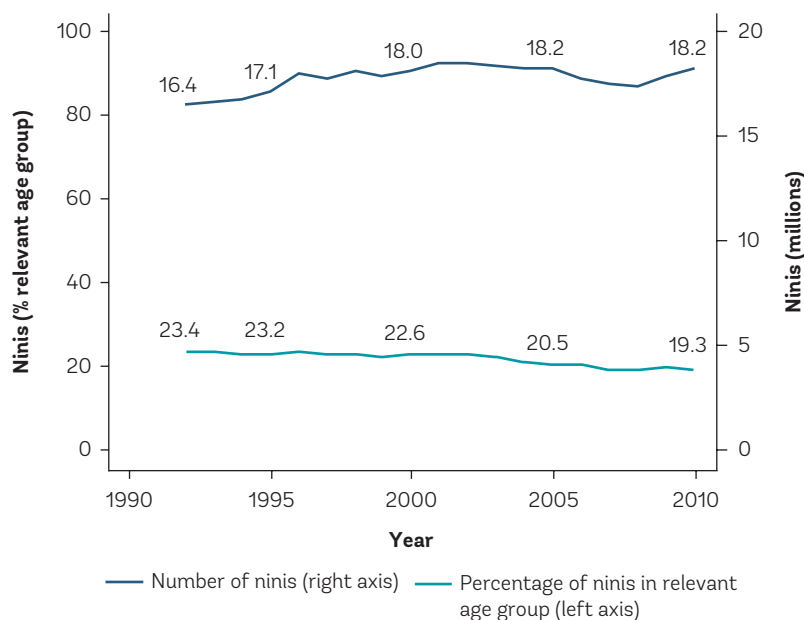


*Source*: de Hoyos, Rogers, and Popova 2015.
*Note*: The share of ninis is the simple average across the 15 countries included in the analysis.

- *Country:* The proportion of ninis varies greatly across Latin American countries, ranging from 10.9 percent of youth in Peru to more than 25 percent in Honduras and El Salvador. The highest absolute numbers of ninis are found in Brazil, Colombia, and Mexico, primarily because of the larger populations of those countries.
- *Rural vs. urban:* As a share of population, ninis are more prevalent in rural areas (21 percent of youth) than in urban areas (17 percent). However, given the high urbanization rate in the region, the vast majority of ninis—close to 13 million of the 18 million total—live in cities.
- *Education level:* Not surprisingly, the education levels of the ninis are rather low. In 2010, more than 25 percent of them had not completed primary school, while another 43 percent had completed primary school but not secondary.

Given the increased media and policy attention in recent years to the nini phenomenon, one might assume that it is growing. This is only partially true. On the one hand, the share of youth who are ninis in the average

*empleo* (employment), *habilidades* (abilities), *flojo* (lazy), *mujeres* (women), *drogas* (drugs), *oportunidades* (opportunities), and *inseguridad* (insecurity).

Latin American country has dropped significantly over the past two decades, from 23.4 percent in 1992 to 19.3 percent in 2010 (figure 3.2).[4] However, this reduction resulted entirely from a fall in the share of females who are ninis; in fact, the male share increased marginally during those years. And over the same period, the total number of ninis in the region rose from 16.4 million to 18.2 million, an increase of 14 percent (figure 3.2). This trend of a declining share but rising number is driven by high population growth for this age group during the 1990s.

A 14 percent increase in the number of ninis over a twenty-year period may seem small, but disaggregating the trends by gender tells a different story. The number of male ninis jumped 46 percent between 1992 and 2010, with the additional males accounting for the entire increase in ninis throughout the period (1.8 million individuals). This is an important distinction, since the number of male ninis within a context of increasing criminal activities appears to be correlated with crime and violence (de Hoyos, Gutiérrez, and Vargas 2015). The combination of this surge in male ninis, the link with crime and violence, and the very emergence of the term "ninis" may explain the increased attention in recent years.[5]

How do the dimensions of Latin America's nini problem compare to those of other regions? Using the collection of household surveys at the global level standardized by the World Bank's Global Income Distribution Dynamics (GIDD) project,[6] we are able to quantify the total number of youth out of school and not working at the global level. According to our estimates, in 2015 there were 260 million youth ages 15 to 24 out of school and not working. More than 35 percent of the global ninis live in South Asia, and more than a fifth of them in East Asia and the Pacific.

Figure 3.3 shows the share of youth ages 15–24 who are ninis in the different regions of the world. The highest share is found in the Middle East and North Africa, where one in three youth are out of school and out of work, while the lowest share is in the high-income countries. The share in Latin America is close to the global average of 22.4 percent. The GIDD data also reveal that the gender breakdown of the ninis problem varies greatly across country groups: in East Asia and the Pacific, in Europe and Central Asia, and in the high-income countries, women are no more likely

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[4] To show the extent of the problem in the average Latin American country, figure 3.2 shows the simple average share of ninis across the 15 countries included in the study. The estimate of total number of ninis in the region used population weightings for each country.
[5] According to an analysis using Google Trends, searches from Mexico using the term "ninis" surged in late 2010, after having been nonexistent before that year. Nor was this simply due to economic circumstances: searches using *"desempleado"* (unemployed) had already risen sharply some two years earlier, just after the global financial crisis hit.
[6] For details on the GIDD data and methods see: http://go.worldbank.org/YADEAFEJ30.

## Box 3.1 Ninis' Life Stories

With more than 18 million ninis in Latin America, there are at least as many stories to explain how they entered that life and how it affects them. Household surveys can capture many of the stories' common themes, which are reported in this report and in greater detail in de Hoyos, Rogers, and Popova (2015). But despite the richness of the surveys, many subtleties hide behind the averages.

To begin to understand the complexity of these stories and give some real-life ninis an opportunity to voice their concerns, the research team teamed up with local consultants to carry out in-depth interviews of 18 ninis and their parents in Mexico and Honduras. The guiding questions used during the interviews were prepared by the authors of the background papers for this report, based on both the results and limitations of their quantitative analyses. The questions were grouped under five themes: family context, the education system, labor market restrictions, perceptions and aspirations, and the role of the state as a provider of solutions.

The stories of these 18 young people portray dysfunctional families. In most cases, the father abandoned the family, was never around to help a mother who became pregnant as a teen, or, in the case of Honduras, either migrated to the United States or was murdered.

> Apparently my father got killed because he had an affair with the woman of a *marero* [gangster].
> — Woman, age 15, in San Pedro Sula

> My father died when I was eight years old because they gave him the wrong treatment in the hospital.
> — Man, 15, in San Pedro Sula

> My father is a truck driver. He travels a lot, we barely see him.
> — Woman, 19, in Monterrey

With the father absent, some of the mothers have to work long hours, leaving the responsibility for raising the children to a grandmother, aunt, older sibling or, in some cases, nobody.

> I was the only one looking after the children when that moron left my daughter.
> — Grandmother of woman, 15, in Monterrey

> When my father died, my mother had to start working and I went to stay with my grandmother.
> — Woman, 21, in San Pedro Sula

> When my father died, my mother got depressed and started drinking a lot. She left us with an aunt, I really miss her.
> — Woman, 15, in San Pedro Sula

Teenage pregnancy was a recurrent element in the stories, either because the nini's mother got pregnant as a teenager or because the current nini was a single mother.

> I got pregnant very young at age 15—that is the reason I did not finish secondary school.
> — Woman, 21, San Pedro Sula

> I got pregnant when I was in high school. I was so young and I didn't know what to do.
> — Mother of man, 20, Mexico City

## Box 3.1 Ninis' Life Stories *(continued)*

> Well, what can you do, she was pregnant and we had to help her. If we helped our oldest daughter when she got pregnant, we have to help them all.
>
> — Mother of woman, 19, Monterrey

The ninis, particularly in Honduras, have low expectations regarding the returns to schooling. They justify their decision to drop out based on economic constraints faced at home.

> It really does not matter how well you perform [in school], there is nothing here. If you want a good job, you'd better have a good connection inside the government.
>
> — Man, 21, Tegucigalpa

> I got to the final grade of lower secondary, and then I decided to work to help my mother with the costs of running the household.
>
> — Man, 20, Tegucigalpa

> We went through a complicated period regarding money. So I decided it was better to leave school. I spend my day listening to music or watching TV.
>
> — Woman, 15, Monterrey

The labor market experiences of ninis consist of low-paid, short-term, informal jobs. Some have experienced abuse of many sorts, such as long hours of work without rest and sexual harassment.

> I was working in a *maquila* [factory in a free-trade zone] for seven months, then they sacked me.
>
> — Woman, 23, San Pedro Sula

> I had to be standing for many hours under the sun. One week they paid me, one week they did not.
>
> — Woman, 19, Monterrey

> I was working as a truck driver in a construction company. They paid me little and I had to work long hours, that's why I left. Since then I haven't found another job. It's been a year since that.
>
> — Man, 23, Cuernavaca

In Honduras, ninis' stories are intertwined with scenes of violence, indicators of the youths' low social capital and their general sense of pessimism.

> Seven of my friends have been murdered. They got into gangs. They charged a thousand lempiras [in a protection racket] for each *pulpería* [street kiosk].
>
> — Man, 15, San Pedro Sula

> My parents told me: "There is nothing here, you will only find violence—you will get killed or you will get robbed."
>
> — Man, 21, Tegucigalpa

> The neighborhood is quite rough. They recently killed three people just outside my house.
>
> — Mother of woman, 21, San Pedro Sula

Most ninis do not think that the government is part of the solution. They believe that the solution lies within themselves. Sometimes, it's a hoped-for outcome with higher income but low probability—becoming a professional football player, leaving the country by getting a job on a cruise ship, or migrating to the United States. One thing that is obvious when listening to these young people is that their decisions are generally rational, given their constrained circumstances. As they transition through adolescence, they are dealing with the tough reality that has dogged them throughout their lives.

*Source:* SIMO Consulting 2015.

**Figure 3.3** **Share of Ninis in the Age Group 15–24, by Region (circa 2010)**
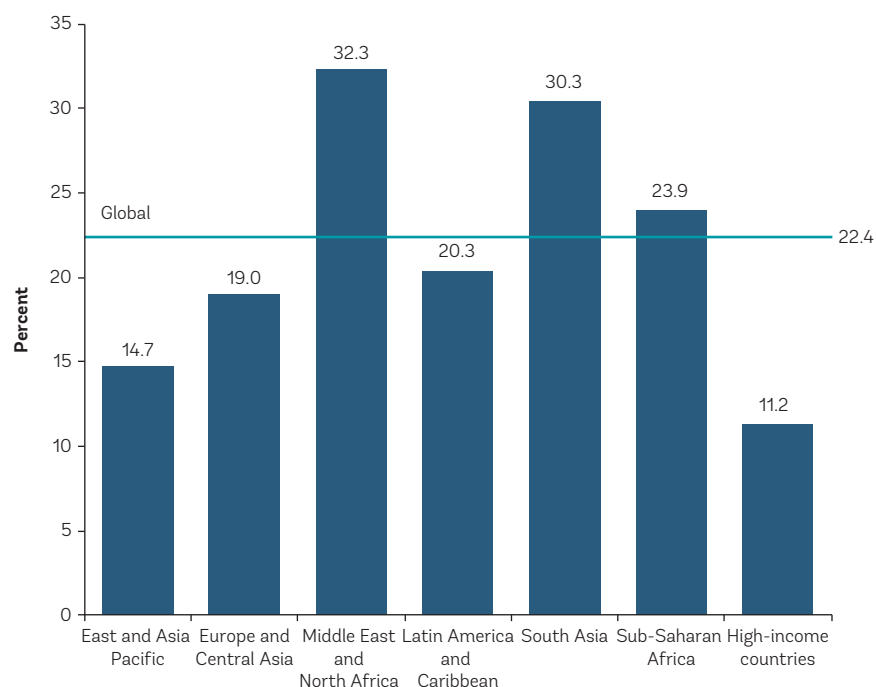


*Source*: Authors' own calculations using data from the Global Income Distribution Dynamic (GIDD) project.
*Note*: The shares of ninis are population-weighted averages within each region.

to be ninis than men are, but in South Asia women account for 82 percent of total ninis, and in the Middle East and North Africa region and in Sub-Saharan Africa, the female share is similar to that in Latin America.

The global benchmarking also reveals that in all developing regions of the world except Europe and Central Asia, more than two thirds of all ninis have not completed secondary school, while less than 10 percent of them have any post-secondary education.[7] The global data also shows that Latin America is the region with the highest share of ninis in urban areas. Among other developing regions, only the Middle East and North Africa has a majority of ninis in urban areas. In the remaining regions, the share is less than 40 percent. In terms of incidence of ninis among the bottom 40 percent of the income distribution, Latin America registers the largest share with 64 percent, followed by East Asia and the Pacific (58 percent), Sub-Saharan Africa (49 percent), Europe and Central Asia (44 percent), and high-income countries (32 percent).

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[7]  In Europe and Central Asia, 48 percent of the total youth classified as ninis do not have complete secondary education.

# 4. Why Youth Become Ninis: A Simple Conceptual Framework

To understand who is becoming a nini and why, and to guide the empirical analysis, it is essential to have a conceptual framework of the multiple factors influencing the schooling and employment decisions of youth. To summarize the reality captured by the framework, figure 4.1 provides a simple characterization of the average transition processes of time use for 15- to 24-year-olds in Latin America. Youth can be in school, working, doing both, or doing neither (that is, being ninis). At the age of 15, more than 80 percent of youth in Latin America are in school, and close to 10 percent are already ninis. As we move further along the horizontal axis into older cohorts, the proportion of youth in school declines, and the share at work or living as ninis increases. As the regional data in de Hoyos, Rogers, and Popova (2015) show, the transitions out of school into work or into nini status in Latin America intensify when youth are ages 15–18, though a significant minority is still in school even at age 24.

Because analysis of these multiple potential outcomes and their dynamic interaction is complex, it is useful to work with a formal model. The model sketched out here—which is based on Behrman, de Hoyos, and Székely (2015)—characterizes how the constraints faced by young people, together with their attempts to do the best they can under these constraints, shape their own and their families' decisions.

To identify the context variables and set of constraints shaping youths' decisions, assume that below a given age threshold (say 15 years of age), denoted a*, youth are either culturally bound or legally required to allocate no time to work. Intra-household or governmental transfers are therefore their only source of income. Above that critical age threshold a*, individuals decide—given the constraints imposed by their micro, community, and macro context—whether to attend school, work in the labor market, do both, or do neither.

By the time they reach that first critical age threshold, $a^*$, youth already possess a set of immutable endowments that reflect many background factors: parental contributions during the youth's earlier years ($a<a^*$); family and individual factors, including socioeconomic aspects; demographic characteristics; and community and macro factors that shape the environment, such as cultural norms, the legal working age, the availability and quality of public education, and community characteristics. The immutable endowments include the formal grades and quality of schooling attained by

**Figure 4.1** Education and Labor Market Transitions, Latin America (circa 2010)
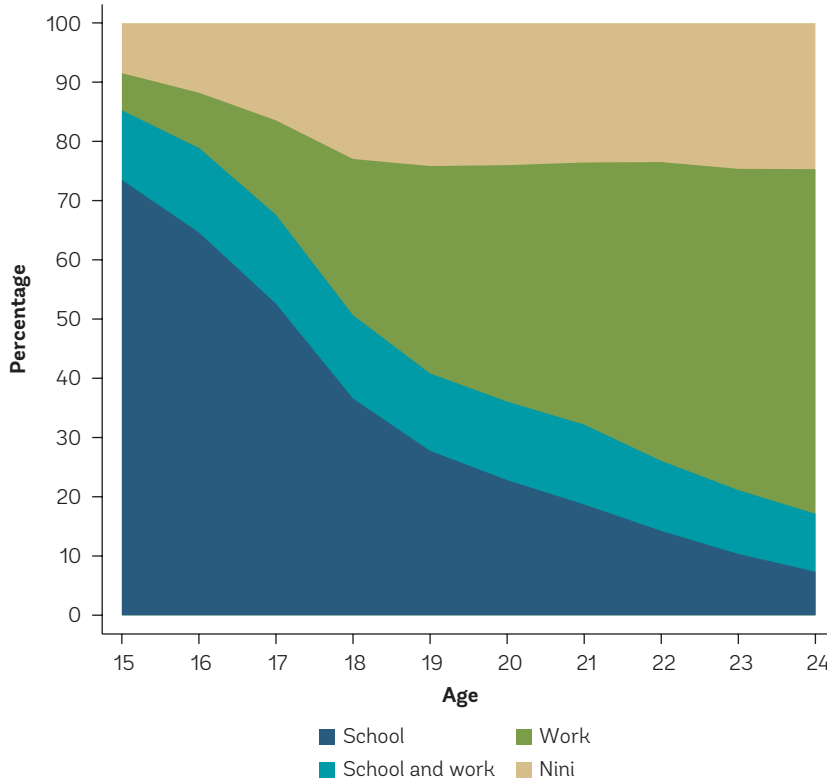


*Source*: de Hoyos, Rogers, and Popova 2015.

age $a^*$, cognitive abilities, and socio-emotional abilities such as self-efficacy and executive functions, all of which have labor-market value. Labor market experience and further schooling combine with the immutable endowments to determine human capital after the critical age threshold $a > a^*$. An assumption of the model—and part of the motivation of this study—is that when youth are out of school and out of work, they stop accumulating human capital. In other words, although being a nini allows a youth to consume leisure today, it does not add to (and it can even subtract from) his or her human capital, and hence can reduce future consumption.

After the youth reaches a second critical age threshold in the life cycle (say 24 years of age), denoted $a = \bar{a}$, human capital accumulation is determined solely by years of experience, since school attendance is no longer viable. The age at which this occurs depends on cultural norms, the economic environment, exogenous circumstances, individual preferences, and education sector norms and regulations. Figure 4.2 offers a simple

**Figure 4.2  Human Capital Accumulation During the Life Cycle**



Human capital ($H_a$)

$H_{\bar{a}}$

$H_{a^*}$

$a^*$ | $\bar{a}$ | Age, $a$

| Parental contribution to $H_a$ | Parents' and youth's joint decision regarding $H_a$ | Youth's $H_a$ accumulated through experience |
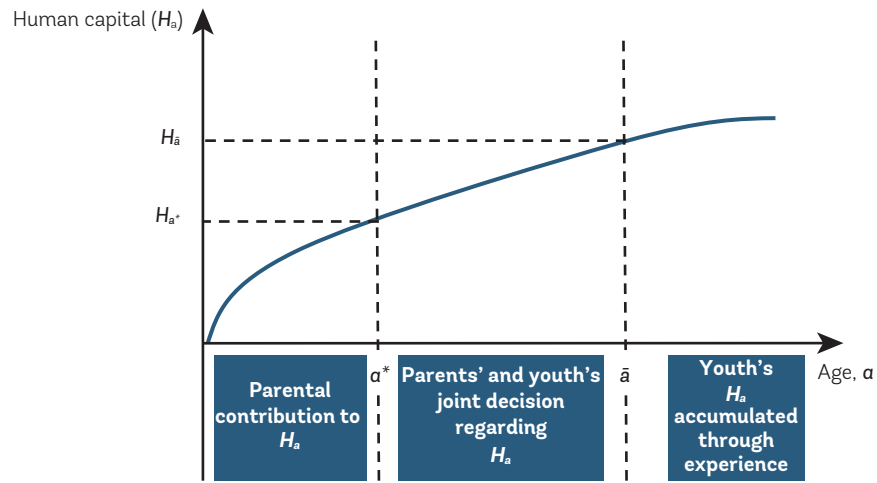
*Source*: Behrman, de Hoyos, and Székely 2015.

graphical representation of the dynamic process of human capital accu-
mulation before and after the "critical age thresholds."

Individuals allocate their time among four mutually exhaustive choices—
attend school, $s_a$; work in the labor market, $h_a$; do both, $b_a$; or do neither,
$n_a$—by following a utility-maximization process, as assumed in standard
economic models. The decisions of youth regarding time use will affect
their current and future consumption, via human capital accumulation
and its impact on future labor market outcomes. Therefore, labor markets
are the link between the decisions regarding time use and the net pres-
ent value of utility. Wages at age $a$ are determined by the market value of
human capital endowments and by other contextual variables that affect
labor productivity, such as labor market regulations, availability of tech-
nology, sectors of specialization, external trade intensity, and general mac-
roeconomic conditions.

Notice that the distribution of youth among the four mutually exclusive
categories of time allocation {$s$, $h$, $b$, $n$} will often reflect primarily the lim-
its imposed by tightly binding constraints, rather than the process of utility
maximization as typically depicted in textbooks. For instance, a youth can be
in the ninis category simply because the labor market is not creating enough
employment opportunities, or because the schooling system is not providing
human capital accumulation. In addition, an individual may be a nini because
cultural patterns and community norms require it, rather than primarily due
to labor-market conditions. For example, the norms may require performing
household-related duties or being a stay-at-home parent.

**Figure 4.3** Factors Determining Youths' Time Use
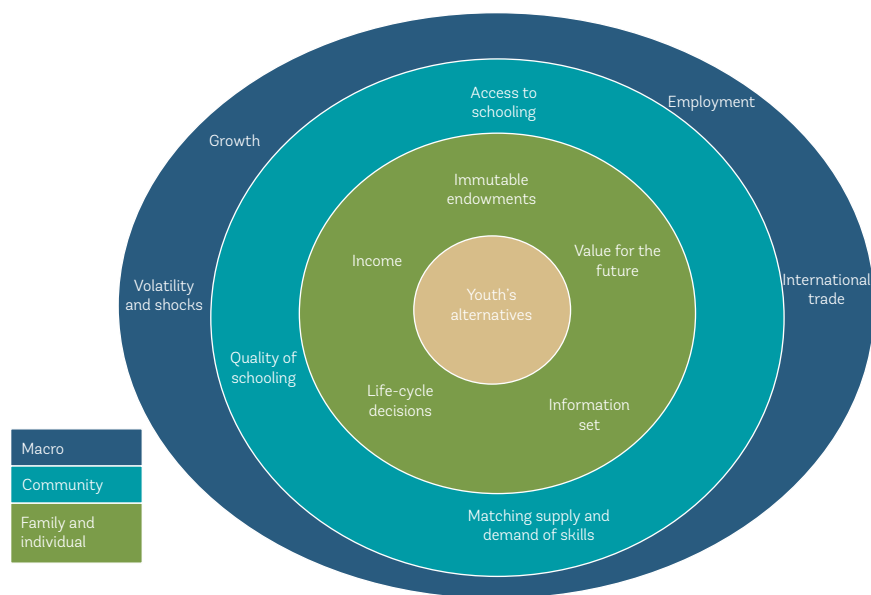


Source: Adapted from Behrman, de Hoyos, and Székely 2015.

Therefore at each point in time between the ages $a^\star$ and $\bar{a}$, youth allocate their time among the different categories {$s, h, b, n$} in whatever way maximizes the net present value of their lifetime utility, subject to a set of constraints and context variables. The factors determining the youths' decisions among the four alternative time uses can be categorized for convenience into three hierarchical groups: family and individual, community, and macro factors, as shown in figure 4.3.

The theoretical framework developed in this study has several testable implications and policy-relevant features:

1. *Long-term effects:* Youths' time allocation today can have long-lasting—even permanent—effects, such as poorer labor market outcomes in the future. Because of the immutable endowments received by youth, there is substantial intergenerational transmission of well-being—and, conversely, of poverty. This implication is consistent with the results shown in Vakis, Rigolini, and Lucchetti (2015), and also with the life stories presented in box 3.1.

2. *Country-specific transitions*: The transition from school to nini status (or any other choice) can occur at younger ages and earlier schooling levels in some countries than in others, because of cross-country differences in socioeconomic context, demographics, and aggregate macroeconomic conditions and the impact of those factors on decisions.

3. *Determinants of human capital accumulation*: Youth will invest less in their human capital if they face liquidity constraints (e.g., if they cannot borrow for

education because of capital markets imperfections), have an especially high preference for present consumption over future consumption (in other words, if they have a high discount rate), or have expectations of future returns to human capital that are biased downward.

4. *Endogenous skills formation*: Given a sufficiently high discount rate among youth, downward-biased perceptions of the returns to schooling, or very low levels of quality of secondary education, better labor market opportunities for youth can result in higher school dropout rates (Atkin 2012).

Assuming the evidence supports these theoretically derived relationships between youth's time use and the different determining factors, then the model can be used to identify policy responses for addressing the nini problem. For example, if empirical evidence confirms that income constraints are an important determinant of ninis, then providing youth with scholarships or well-targeted cash transfers conditional on school attendance could help reduce the problem. Table 4.1 shows one or several potentially effective policy responses for each of the determinants of youths' time use identified by the theoretical framework.

### Table 4.1 Factors Determining Youths' Time Use and Potential Policy Responses

| Determining factors | Potential policy responses |
|---|---|
| *Family and individual* | |
| Immutable endowments | Early child development, socio-emotional skills, mentoring/tutoring |
| Income | Conditional cash transfers, scholarships, vouchers |
| Valuation of the future | Information interventions |
| History of past decisions | Second-chance programs, distance learning, flexible teaching |
| Distorted information set | Information interventions |
| Life-cycle decisions such as marrying, co-habiting, having children | Teenage pregnancy prevention programs |
| *Community* | |
| Access to schooling | Adequate supply, transportation subsidies |
| Quality of education | Teacher policies, school-based management, director's managerial capacity |
| Matching supply and demand of skills | Technical/vocational, employment services, training programs |
| *Macro* | |
| Growth | |
| Employment | Other policy responses beyond the scope of this study |
| International trade policy | |
| Volatility/shocks | |

# 5. Long-Term Dynamics of Ninis: A Cohort Analysis

AS DESCRIBED IN THE PREVIOUS SECTION, the process of human capital accumulation and time use decisions is intrinsically dynamic, and it responds to different logic and circumstances at different stages of the life cycle. Tracking this dynamic process empirically over the life cycle is a different approach from the one illustrated in Section 3, where the nini phenomenon is mapped out through snapshots of cross-sectional data at different points in time.

These snapshots are useful for examining the contemporaneous correlation between nini status and individual, community, and macro factors. But the cross-sectional approach needs to be complemented with analysis that can capture the dynamics of ninis. As discussed in the conceptual framework in Section 4, the nini condition at any point—during adolescence, for example—depends not only on the youth's particular current circumstances, but also on earlier decisions. If information about the past is not taken into account, the youth's nini status might be wrongly interpreted as a consequence of today's circumstances only. This misleading interpretation can lead to wrong policy responses.

To analyze the issue dynamically, it would be ideal to have access to panel data that follow the same individuals over time. However, this type of data is rarely available in Latin America, and when it exists (as in the case described in Section 6 below), it usually covers only a limited number of months during working age.

## 5.1 More Schooling Plus Less Employment Equals Stagnation in the Number of Ninis

FORTUNATELY, WE CAN TAKE AN ALTERNATIVE APPROACH to increase our understanding of the dynamics of the school and work decisions during adolescence, even in the absence of long-run individual-level panel data. This alternative is to construct synthetic panels, by using household survey data—which are much more widely available in the region—to follow representative groups of the population (identified by their years of birth) over time using different surveys.

Take, for instance, Mexico, where 14 household surveys are available within the 1984–2012 period. Since the surveys are representative of population age subgroups, it is possible to identify the age cohort of individuals who were six years old in 1984, which is then observed eight years later at age 14 in the 1992 survey. The same group is observed at age 16 in 1994, age 18 in 1996, age 20 in 1998, age 22 in 2000, and age 24 in 2002. Thus, it is possible to follow this cohort from the time it first reaches school age all the way to the age at which it is due to exit the school system. In the same way, we can track other cohorts. Furthermore, household surveys normally allow tracking school attendance, labor market entry, and nini status at each of these points of observation, making it possible to determine the moment at which a certain proportion in the nini category that we observe at age 24 (for example) entered this group. The data therefore allow us to track the share of individuals allocating their time to each major activity along the life cycle of each cohort. In addition, this synthetic panel analysis allows us to correlate the changing shares of different groups within a cohort—including those attending school, working, in school and working, or being ninis—with community and macro variables summarizing the context for these changes.

The synthetic panel used in Székely and Karver (2015) was created from 234 household surveys for 18 Latin American countries spanning the 1980–2011 period, which were harmonized to guarantee comparability of the critical variables of interest. The data confirms the striking finding from Section 3 above: despite gross domestic product (GDP) growth of over 50 percent in real terms between 2000 and 2010, as well as substantial declines in poverty and inequality during that period, the share of youth in the nini category at ages 15–24 fell only marginally.

Figure 5.1 offers an example of the time pattern of school-to-work and school-to-nini transitions made by two different generations followed through this synthetic panel approach. Each cohort consists of individuals born in a particular three-year period, and the figure includes the averages for the 18 Latin American countries in the database. Consider, for instance, cohort 1 in figure 5.1, which represents individuals who were born between 1977 and 1979 and who therefore reached ages 15–17 between 1992 and 1994. This is the first cohort for which a trajectory can be constructed starting at age six, which is the average age at school entry in the region. School participation rates start at about 70 percent at age six for cohort 1, remain at the same level between ages 6 and 10, and start falling thereafter. There is a sharp decline precisely after age 15, so that at age 18 only about 30 percent remain in school, and at age 24 the share is 15 percent.

The time use choices for cohort 2 look substantially different, even though individuals in cohort 2 are born only six years later than those in cohort 1. First, schooling rates for the second cohort are considerably higher, with

## Figure 5.1 School and Labor Market Transitions



Cohort 1 = Born in 1977–1979 (31–33 in 2010)
Cohort 2 = Born in 1983–1985 (25–27 in 2010)

Legend:
— In school cohort 1    — In school cohort 2    — Working cohort 1
— Working cohort 2    - - - Nini cohort 1    - - - Nini cohort 2
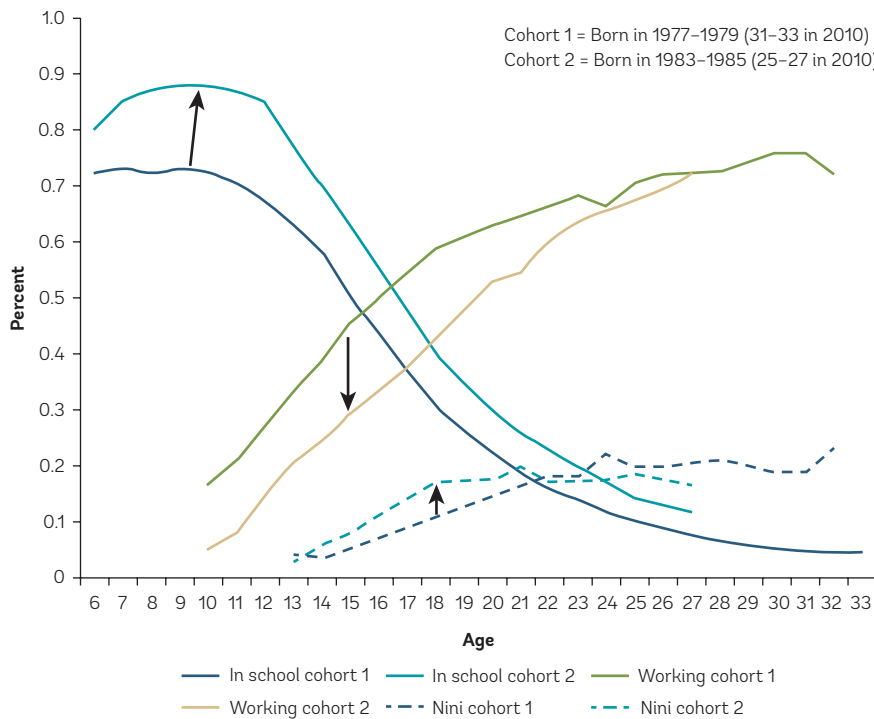
*Source*: Székely and Karver 2015.
*Note*: The vertical axis shows the share of the population in the three different activities: studying, working, and nini.

enrollment reaching 90 percent for all individuals between ages seven and 12. This shows that in the course of only a few years, there was a significant increase in the skills of the new generations approaching working age (as in Bassi, Busso, and Muñoz 2013). Interestingly, the gap between the two school enrollment profiles in figure 5.1 remains roughly constant at about 10 percentage points thereafter, indicating that the initial boost in school participation at the primary level for cohort 2 had a long-lasting effect, through about age 24.

As for the transitions to working age, the data show that many individuals in cohort 1 begin working quite early in life. The working share has already reached about 25 percent at age 12; it then rises to 46 percent at age 15 and 60 percent at age 18. Up to age 20, individuals in cohort 2 are working at rates 12–20 percentage points less than in cohort 1. At age 18, for example, only about 40 percent of cohort 2 individuals were working. Convergence between the cohorts starts at age 20, so that by age 24 the share who are working is practically the same for both cohorts.

Therefore, the main difference between the two cohorts is that the average individual in cohort 1 dropped out of school earlier, and that a larger

share acquired work experience by finding employment when they were younger. By contrast, individuals in cohort 2 have higher average education levels, but they reach age 24 with less experience because they have stayed in school longer and entered the labor force later.

How do these contrasting employment and schooling profiles affect the nini shares of the two cohorts? Figure 5.1 shows that between the ages of 15 and 22, the share of youth who are ninis is larger for cohort 2, reaching a maximum of about 20 percent at age 20–21. Even though cohort 2 receives considerably more schooling on average than cohort 1, its lower rates of working at younger ages outweigh that schooling progress and lead to more ninis. From age 22 on, however, cohort 1 has a slightly greater nini share, because working rates for the two cohorts roughly converge while cohort 2 continues to attend school at higher rates. For both cohorts, the nini share then remains roughly stable for as long as we are able to track it in the data—until about age 33 for the older cohort and age 27 for the younger.

This synthetic-panel cohort analysis helps us understand why Latin America has made only slow progress on ninis over the past twenty years. Although figure 5.1 includes only these two of the region's cohorts, separated by just six years, the full analysis shows that the pattern it depicts is a more general one. Latin America's youth have markedly improved their schooling levels, but because their entry into employment has been delayed by roughly the same margin, the proportion of youth who are ninis has declined only slowly, and their number has risen.

## 5.2  The Trends Are More Positive for Women than Men

The previous section's conclusion on stagnation in nini numbers is too pessimistic, in one important sense: it does not apply to women. When the average regional data for the cohorts born in 1983–85 and 1993–95 are divided by gender, we find that the increase in school enrollment rates is almost the same for men and women: for both genders, schooling rates increase by about 5 percentage points at every age from 12 through 18. Thus not only did access to education increase, but it did so apparently with gender equality during the 10-year period between the two cohorts.

However, labor-market participation rates differ widely by gender, in several dimensions. First, the proportion of males in the labor market is significantly higher for both cohorts. Second, and perhaps most important, the trend toward lower rates of working by the younger cohort is more pronounced for males: the younger generation works 4 percentage points less than the older generation between ages 12 and 18. For women, while

the share at work is also smaller initially for the younger cohort, the gap between cohorts is much smaller and has disappeared entirely by age 18.

The differences in labor force participation rates have direct consequences for the proportion of nini youth in both groups. While for men the nini rate falls only slightly across cohorts—due to the combination of more individuals in school but fewer at work—for women there is a more significant decline in the nini share, derived from their increased school attendance and relatively stable rate of working. Age 18 is a good example of these dynamics for women. The share of nini youth at this age is about 10 percentage points lower for the younger than the older cohort, and this reduction is explained entirely by the much higher school attendance of the younger, because female labor force participation rates have not changed for 18-year-olds over the intervening period.

Hence the cohort analysis shows that the main driving force behind the persistently high shares of nini youth in the region is limited entry into the labor market, but that this pattern applies more to men than women. Overall, education participation has increased, but the share of nini youth has not declined substantially because fewer youth are working. This, at least, is the average pattern for the region. When we break the data out by gender, we see that women do not follow this trend: education expansion for young women has combined with a rise in their propensity to work, with declining rates of female ninis as a consequence.

## 5.3 Other Policy Insights from the Cohort Analysis

As mentioned above, one of the advantages of the synthetic panel approach is that it permits measuring how changes over time in time-use decisions—the share of youth in school, in the labor market, and in the nini category—correlate with the community- and macro-level context for those decisions. Specifically, cohort trajectories for all countries and survey years are pulled together and linked to variables in the same country and year of observation. The results for these contextual variables are:

1. *Rural-urban:* Decreases in the proportion of adolescents living in rural areas are associated with reductions in the relative size of the nini group at the younger ages (between ages 12 and 14 and ages 15 and 17), when individuals are moving from lower to upper secondary school.

2. *Returns to education:* Increases in the returns to upper secondary schooling are associated with lower shares of ninis, which suggests that higher economic rewards to education increase the opportunity cost of

leaving school and of not working after completing upper secondary. There is also a similar association with the returns to higher education, but only for males.

3. *Labor-market conditions:* Greater labor market opportunities—as represented by the employment share of males and females aged 35–55—are significantly associated with reductions in the share of female ninis.

4. *Gender dimensions of opportunity:* Higher employment shares for women are associated with a larger share of male ninis. This suggests that increased female employment may have a labor-market "crowding out" effect for young males, either because it introduces greater competition for a limited number of jobs or because it reduces wage rates for male youth.[1]

5. *Macro variables:* Changes in GDP per capita, inflation rates, and trade flows have little influence on changes in the share of nini youth.

6. *Demographics:* There is a positive and significant association between cohort size (as approximated by the fertility rate in the year of birth) and the share of ninis.

As for policy implications, one important message is that it is not enough to address current conditions of youth; policy must also help shape their life cycles well before they reach upper secondary or working age, in the incubation stage of the problem. A second message is that failing to address the problem in a timely way not only has immediate consequences, but can also mark an age cohort's life trajectories for many years in the future.

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[1] The results and interpretation are consistent with other studies including Acemoglu et al. (2004) and Juhn and Kim (1999), who show that the expansion of opportunities for females in the United States adversely affected different dimensions of male employment at different stages.

# 6. Short-Term Dynamics of Ninis: Panel Data Analysis

IN THE PREVIOUS SECTION, synthetic panels helped identify the community and macro factors determining youths' dynamics over the life cycle. To complement this analysis, Baron, Popova, and Sánchez-Diaz (2015) use Mexico's ENOE dataset, together with the conceptual framework developed by Behrman, de Hoyos, and Székely (2015) and described in Section 4, to identify the family and individual factors leading youth to become ninis. This analysis is possible because ENOE is a rotating panel that allows us to track education and employment status over time for the same individuals. Each household in the survey is visited for five consecutive quarters, with 20 percent of the sample replaced each quarter. As a result, each individual can be tracked for a period of one year and three months—not a long period, but long enough to offer real insights into the dynamics of the ninis in Mexico. The analysis focuses on 15- to 24-year-olds who completed all five interviews between Q1 2005 and Q4 2013. It runs separate empirical specifications for youth aged 15–18 and 19–24, and also for men and women. This means we have information for 36 cohorts, totaling about 650,000 individuals and nearly 3.26 million observations.[1]

The information included in ENOE allows the identification of six sets of variables from the theoretical framework: (1) the history of past decisions regarding time use, captured by indices $I_i^n$, $I_i^s$, and $I_i^h$ that summarize decisions during the previous four quarters[2]; (2) quintiles of household income per capita, to proxy for each youth's income; (3) a set of dummy variables summarizing the youth's education, as a way of capturing his or her immutable endowments; (4) socio-economic context, proxied by parents' education and location of household (rural or urban); (5) other demographic characteristics, such as the youth's marital status and age; and (6) macroeconomic conditions, captured by the quarterly inflation rate and the growth rate of the industrial production index, both measured at the state level. The empirical strategy used to identify the effects of these variables on individual choices regarding time use is a multinomial logit with three

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[1] Due to space limitations in this summary, we present only the results for the dynamics among youth aged 15–18. Results for the older age group, 19–24, are available in Baron, Popova, and Sánchez-Diaz (2015).

[2] The indices $I_i^n$, $I_i^s$, and $I_i^h$ capture the time-use decision over the last four quarters for ninis, studying or working, respectively. For instance, a value of 1 for $I_i^n$ would indicate that individual "$i$" was a nini during the last four quarters whereas a value of 0 would show that the individual was never a nini during that period.

discrete outcomes: studying, working, or nini. All the results in this section are presented in terms of conditional marginal effects on the probability of being nini.

A first finding is that past time-use decisions are a strong predictor of being a nini today. For Mexican youth aged 15–18, having been ninis for longer periods in the past is associated with an increased probability of currently being a nini; this is true for both men and women, although persistence is higher among women. For instance, an increase of 10 percent in the nini index of past decisions is associated with a 5.5 percent increase in the probability of being nini today. This result implies that for a young man who was in school for three consecutive quarters and then became a nini in the fourth quarter, the predicted probability of being a nini in the fifth quarter is 35 percent higher than if he had remained in school.

According to Baron, Popova, and Sánchez-Diaz (2015), perhaps counter-intuitively, having worked in recent quarters also strongly predicts being a nini today. A possible explanation of this result is that the jobs that 15- to 18-year-old youth can obtain in Mexico are rather unstable and in most cases in the informal sector (Cunningham and Bustos Salvagno 2011). For instance, among youths who transition into the ninis stage in any given quarter, roughly four out of five do so from work, while the remainder become ninis directly from school. This suggests that these youths' first step has been to find a job, and then once they have one, they drop out of school and never return.

As predicted by Behrman, de Hoyos, and Székely (2015), low household income predicts nini status, but the correlation is not consistent across income levels or genders. For men, the relationship between quintiles of household income per capita and the probability of being nini is non-linear. As figure 6.1 shows, male youths from better-off households, those in the fifth quintile, are 8.1 percentage points less likely to be ninis than those in the poorest households (the first quintile, the comparison group). The effects are lower for quintiles 3 and 4, while there is a zero income effect in households in quintile 2 vis-à-vis households in the poorest quintile. For women, although the same negative relationship between income and nini status is visible (see figure 6.1), the relationship is smaller and not statistically significant.

Although the correlation exists, the lack of a stronger and more consistent relationship between income and the probability of being nini is surprising, given that close to 60 percent of the nini population in Mexico is in the bottom 40 percent of the income distribution. Our results suggest that, particularly for women (who account for more than two thirds of ninis in Mexico), a scholarship program would have to be substantial to reduce school dropouts and the likelihood of being nini. Based on

**Figure 6.1 Proportional Change in the Probability of Being a Nini by Income Quintile, Compared with Quintile 1, Youth Aged 15–18, by Gender**
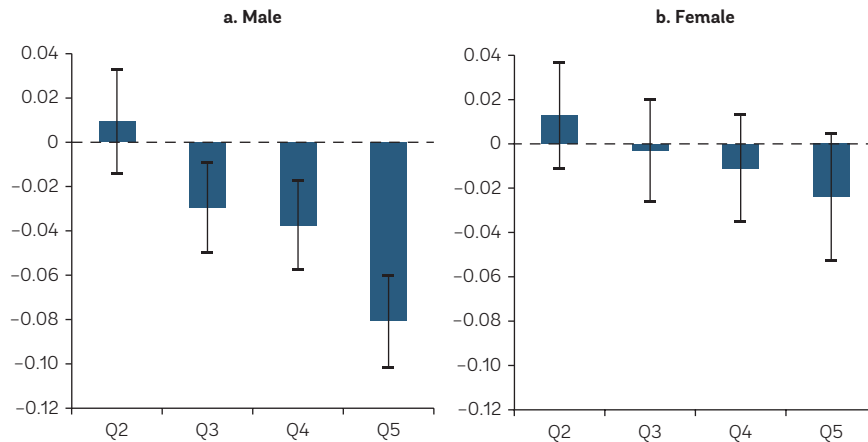


*Source*: Baron, Popova, and Sánchez-Diaz 2015.

*Note*: The values of the bars represent the marginal effects on the probability of being nini for the corresponding variables from the underlying estimation of multinomial logit models (one for each gender). The dependent variable in the multinomial models takes three states (Nini, Work Only, and Study Only). Only marginal effect for the outcome of nini is presented in this graph. The models include controls for history of past decision indices, youth's own education level, parental education level, household income quintiles, a set of demographic variables, and state economic condition variables. Quintile 1, with which the other quintiles are compared, is the poorest quintile.

the empirical estimates from the logit model, even for men, a monthly transfer equal to the difference between average incomes of quintiles 1 and 2 would not be enough to reduce significantly the likelihood of being nini. It would apparently take a monthly transfer equal to the income differences between quintiles 1 and 3 (MX$1,280 in 2013) to reduce dropouts and hence the probability of becoming a nini by about 3 percentage points among 15- to 18-year-old males in Mexico.

Baron, Popova, and Sánchez-Diaz (2015) also find that higher parental education reduces the predicted likelihood of young women becoming ninis, although the relationship is weaker for young men (figure 6.2). Compared to the base group (household head with no education), 15- to 18-year-old women from households where the head has either completed lower secondary school or has completed at least upper secondary education are 6 and 12.2 percentage points respectively less likely to be ninis (figure 6.2). For young men, parental education is associated with a lower likelihood of being a nini only when the youth's household head has at least completed upper secondary, and even in that case the effect (7 percentage points) is smaller than for women.

**Figure 6.2** **Proportional Change in the Probability of Being a Nini and Parental Education, Youth Aged 15–18, by Gender**
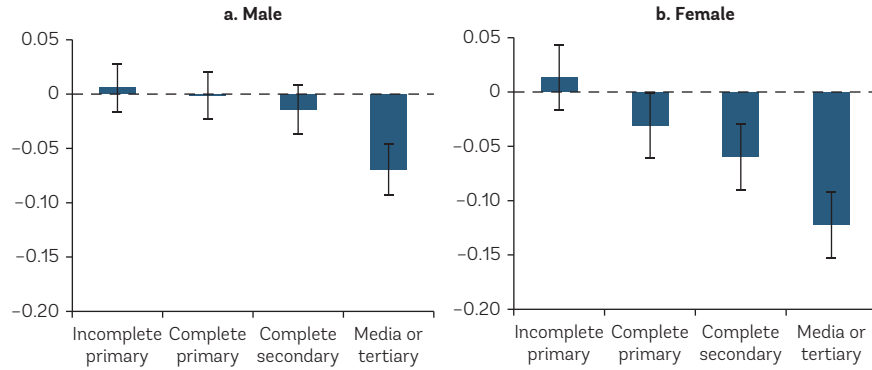


*Source*: Baron, Popova, and Sánchez-Diaz 2015.

*Note*: The values of the bars represent the marginal effects on the probability of being nini for the corresponding variables from the underlying estimation of multinomial logit models (one for each gender). The dependent variable in the multinomial models takes three states (nini, Work Only, and Study Only). Only marginal effect for the outcome of nini is presented in this graph. The label "Secondary" includes lower secondary and "Media" includes upper secondary. The models include controls for history of past decision indices, youth's own education level, parental education level, household income quintiles, a set of demographic variables, and state economic condition variables.

This evidence is consistent with the hypothesis that households whose heads are more educated raise children who remain in school for longer. The results also suggest that schooling decisions of women are more an outcome of pre-defined deterministic roles. These roles may be bounded by cultural norms and traditions that are influenced not merely or even primarily by higher income, but by the education of the household heads and the attitudes or knowledge that accompany higher levels of education.

Early marriage—which may often indicate teenage pregnancy—is the most important predictor of being a nini among 15- to 18-year-old women. Other factors held equal, being married is associated with a 22.3 percentage point increase in the predicted probability of being a female nini (figure 6.3) and a 21.1 point reduction in the probability of studying only, with little effect on the probability of working only. Married nini women are probably taking care of children in many cases, reducing their participation in schooling or the labor market. These findings could also indicate that early pregnancy, even when a partner is present, may reduce the educational opportunities of women (as shown by Arceo-Gómez and Campos-Vázquez 2014). For young men, although being married shows no association with the probability of being a nini, living in a female-headed
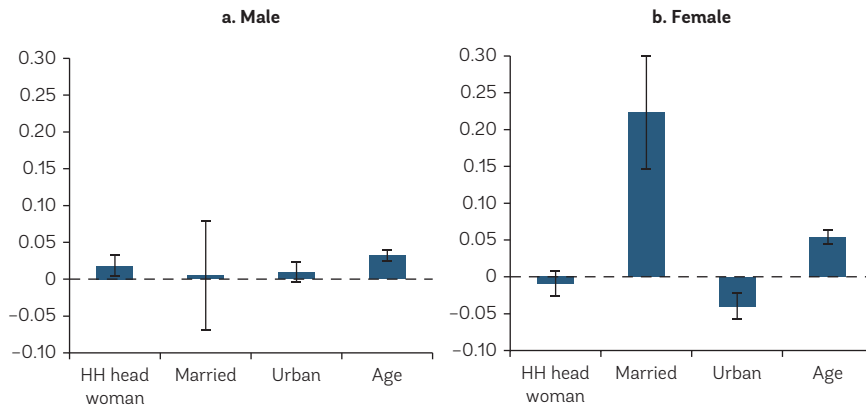
**a. Male**

**b. Female**

*Source*: Barón, Popova, and Sánchez-Diaz 2015.

*Note*: The values of the bars represent the marginal effects on the probability of being nini for the corresponding variables from the underlying estimation of multinomial logit models (one for each gender). The dependent variable in the multinomial models takes three states (Nini, Work Only, and Study Only). Only marginal effect for the outcome of nini is presented in this graph. The models include controls for history of past decision indices, youth's own education level, parental education level, household income quintiles, a set of demographic variables, and state economic condition variables.

household does increase that probability slightly (figure 6.3). Given that teenage pregnancy is common in Mexico (Azevedo, Lopez-Calva, and Perova 2012) and hypothesizing that many of these married adolescent ninis will end up in single-headed households, there is a risk of intergenerational transmission of nini status—from pregnant teenager to single female-headed household to an increased probability of male children becoming ninis.

# 7. What to Do about Ninis: Policy Options

**THERE ARE TWO MAJOR SETS** of policies for reducing the share of ninis in the population: (1) keeping youth from dropping out of school early, in other words, reducing the flow of new ninis, and (2) moving youth who are already ninis into employment. This section explores both sets of policies, based on a new literature review on the impact of interventions to prevent school dropout in Latin America and elsewhere (Almeida, Fitzsimons, and Rogers 2015) and on other reviews of programs to support youth employment (Almeida et al. 2012, Betcherman et al. 2007, World Bank 2012).

## 7.1 Keeping Youth in School

**THERE ARE MANY REASONS** why youth drop out of school, as suggested by the conceptual model and the empirical analyses of ninis in this report.[1] These reasons include the high costs of school (monetary and non-monetary); uncertainty and lack of information on the lifelong benefits of schooling; myopic preferences for consumption and leisure now rather than later; and low motivation. Institutional and contextual factors also influence the decision: parental education and preferences, the quality of education in the local schools, opportunities in the labor market, and the influence of peers. Clearly, policies to stem premature dropout must tackle some of these root causes of the problem.

Government and civil society use a wide range of strategies to try to keep youth in school. These can include supply-side measures such as increasing the quality of schooling, particularly for at-risk youth. Demand-side measures, meanwhile, include conditional cash transfers, scholarship programs, and interventions to help students better understand the returns to education.

The paper by Almeida, Fitzsimons, and Rogers (2015) brings together the global experience in dropout prevention, highlighting the range of possible programs and documenting the latest evidence on effectiveness of interventions. In most cases, the analysis includes only evaluations that used a rigorous empirical strategy with appropriate counterfactual. This means restricting the analysis in most cases to randomized controlled

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[1] In this study, "drop out" means to leave the schooling system before completing upper secondary education.

trials (RCTs), quasi-experimental studies (such as instrumental variables and regression discontinuity design), and well-designed matching studies. Evaluation using the right counterfactual is particularly important in programs for dropout prevention, because youth who leave school are likely to be systematically different—in their family circumstances, school environment, and level of motivation, for example—from youth who graduate from high school. The review focuses primarily on interventions aimed at the upper-secondary level, given the age range defined for ninis in this study (15–24). However, where interventions at other levels of education appeared likely to directly address the ninis problem, the review included studies of them as well. This is particularly important in Central America, where a substantial share of dropout takes place in lower secondary or in the transition to upper secondary.

One way to organize this information is by following the conceptual model sketched out in Section 4, adopted from Behrman, de Hoyos, and Székely (2015). In this model, understanding the causes of dropping out requires understanding what drives the marginal benefits and costs of schooling to the individual during his or her secondary-school years and under which constraints and macroeconomic context this decision is taking place. Broadly speaking, the policy options for reducing school dropouts included in table 4.1 can be categorized into family, community, and macro factors that shift the marginal benefit or marginal costs of attending school. In table 7.1, Almeida, Fitzsimons, and Rogers (2015) review the existing evidence on the impact of various interventions.

What do we learn from these rigorous evaluations? The background paper provides full details on each class of interventions. Here we summarize some of the major findings on more effective interventions, categorized by the level at which they work.

**Table 7.1  Interventions Reviewed in Almeida, Fitzsimons, and Rogers (2015)**

| Demand-side interventions | Supply-side interventions |
|---|---|
| 1. Financial incentives to remain in school<br>　a) Conditional cash transfers, need-based scholarships, and "deferred" scholarships<br>　b) Merit scholarships and achievement-based financial incentives<br>　c) School vouchers<br>2. Information interventions<br>3. School vouchers | 1. Socio-emotional interventions<br>　a) Early childhood development<br>　b) Cognitive-behavioral approaches<br>2. Pedagogical interventions<br>　a) Tutoring and personalized assistance<br>　b) ICT and distance learning<br>　c) Vocational and technical skills<br>3. Early warning systems<br>4. School-based management<br>5. Extension of schooling<br>　a) Full-time schools<br>　b) Extension of compulsory schooling |

Out of School and Out of Work

### 7.1.1 Options for Lower Secondary

While the evidence is rarely clear-cut, some interventions to reduce dropout have generally been more effective at the lower secondary level than at the upper secondary.

On the demand side, *conditional cash transfers* have been very effective in increasing enrollment in and completion of lower secondary (Fiszbein, Schady, and Ferreira 2009). For example, the well-known *Progresa/ Oportunidades* program in Mexico, which increased enrollment of girls by 7–9 percentage points and of boys by 3–6 percentage points, had its largest effects during the transition from primary to lower secondary school (Schultz 2004). Results from Ecuador similarly show that program effects on enrollment are largest in the transition grades (Schady and Araujo 2008).

Interventions to improve students' *information* about the returns to education can also pay off in reduced dropout from lower secondary. The best illustration of this is provided by a program from the Dominican Republic, where only 20–30 percent of students completed secondary school even though a large majority completed 8th grade, and where youths' perceived returns to education were much lower than the actual returns. In that context, youth who were given information substantially increased their attainment, with the strongest effects for students from less-poor households (Jensen 2010). By contrast, an experiment with upper secondary students in Mexico found no such effects on dropout (Avitabile and de Hoyos 2015). This evidence, and the theory underlying the intervention, suggest that providing information will work best at preventing dropout where students are initially less informed—most likely in poorer areas—and where the information intervention is supported by financing for students from poor households.

Another area of supply-side intervention is *school-based management.* Two programs in Mexico to involve communities in school management— the PEC (Quality Schools Program) intervention and the AGE program— have been the subject of several evaluations of their effects on dropout. Rigorous non-experimental evaluations have tended to find small but significant effects on dropout, repetition, and failure rates (Shapiro and Skoufias 2006; Murnane, Willet, and Cardenas 2006; and Gertler, Patrinos, and Rubio-Codina 2012), while preliminary results from a follow-up RCT evaluation of AGE (Gertler, Patrinos, and Rodríguez-Oreggia 2012) also show a small reduction in dropout rates.

Movement to *full-time schooling* also has been shown to reduce dropout. A recent review of the effects of extending the school day (Holland, Evans, and Alfaro 2014) finds that 85 percent of the impacts estimated by rigorous evaluations are positive, and two-thirds of those are statistically

significant. In some cases, the intervention raises test scores or improves other outcomes, and in three countries there is rigorous evidence of effects on attainment and dropout—Chile (Pires and Urzua 2010), Brazil (Dias Mendes 2011), and Argentina (Llach et al. 2009), with a large estimated increase in graduation rates in Argentina. The review concludes that positive effects are often especially large for at-risk students. However, it also cautions that moving to full-time schooling is quite expensive, and so these benefits should be weighed against the costs.

Extension of *compulsory schooling* may also be effective, if the minimum compulsory education level is not too high and government is willing and able to enforce the law. Rigorous studies show that extending compulsory schooling has had large effects on attainment in developed countries such as the United States, the United Kingdom, and Norway (Angrist and Krueger 1991; Oreopoulos 2006; Black, Devereux, and Salvanes 2008). This is true especially where governments have accompanied the extension with restrictions on paid work and direct enforcement. Evaluations from Turkey (Kirdar, Dayioglu, and Koc 2014) and Taiwan (Spohr 2003) show that extension of compulsory schooling through lower secondary in those emerging markets has also substantially reduced dropout.

## 7.1.2 Options for Upper Secondary

The causes behind dropouts are more complex in upper secondary, where dropout rates increase substantially in most Latin American countries. As shown by the empirical evidence presented in Sections 5 and 6, the determinants of dropout differ substantially between men and women at this level. Therefore, while interventions to reduce dropouts in lower secondary need not be gender-specific, this is not true in upper secondary.

One example is programs for *teen pregnancy prevention*. The adolescent fertility rate in Latin America is quite high (Azevedo et al. 2012), with serious consequences for dropout: teenage pregnancy lowers school attendance and decreases years of schooling (Arceo-Gómez and Campos-Vázquez 2014) and reduces the probability of high school completion (Kruger and Berthelon 2012). While rigorous evaluations of pregnancy prevention programs are scarce, they are likely to be an important type of intervention to prevent dropout, especially for girls. There is some evidence in favor of school-based programs to prevent pregnancy (Azevedo et al. 2012), and programs to help pregnant teens and teen mothers remain in school are effective in reducing dropout, according to a recent meta-review of rigorous evaluations (Steinka-Fry, Wilson, and Tanner-Smith 2013). By contrast, there is little rigorous evidence on programs to prevent teen fatherhood from leading to dropout.

Another demand-side intervention that shows some effect on upper secondary dropout rates is *merit scholarships*, and in this case too, the effects may differ by gender. One example is a secondary-school program in Israel, evaluated using a randomized controlled trial (RCT) that gave substantial cash rewards to upper-secondary students for grade progression and school completion. The program had no effect on males, but it did increase completion rates among "marginal" girls by roughly 10 percentage points (Angrist and Lavy 2009). Similarly, an RCT-based evaluation of a US program providing cash incentives for graduation, as well as mentoring and tutoring, found that female participants enjoyed a short-term gain in high school graduation and a long-run gain in postsecondary enrollment—but there was no effect on males (Rodriguez-Planas 2010).

The only demand-side intervention that has proven effective in reducing dropout rates among both men and women in upper secondary is *deferred scholarships*. A recent RCT of a large-scale program in Bogotá, which involved over 13,000 youth, showed that conditional cash transfers for upper-secondary students can be particularly effective if they defer part of the financial subsidy until re-enrollment (treatment 1) or until enrollment in a tertiary institution (treatment 2). Both treatments were superior to the traditional transfers in increasing enrollment at the secondary and tertiary level: the first increased re-enrollment rates by 4 percentage points and matriculation at the tertiary level by 9.4 percentage points, while the second increased tertiary matriculation by a very large 49 percentage points. Taken together, the results suggest that this type of deferred scholarships can help keep youth from dropping out of upper secondary.

On the supply side, there is a scarce but promising literature on the importance of *socio-emotional interventions* to reduce dropouts and other risky behaviors among young men in upper secondary education. These programs aim to strengthen socio-emotional (sometimes called non-cognitive) skills such as conscientiousness and emotional stability, which are likely to improve school persistence and completion. As Kautz and Zanoni (2014) note, "completing high school requires many other skills besides those measured by achievement tests, including showing up in school, paying attention, and behaving in class." One approach to strengthening socio-emotional skills is cognitive-behavioral interventions, which help youth with problem-solving, anger control, self-instruction, and self-control. While most such programs have not been rigorously evaluated (Kavanagh et al. 2009), two recent RCTs of programs to support at-risk youth in Chicago have begun to fill that gap. One multi-prong intervention of this type (Heller et al. 2013) reduced violent-crime arrests during the program year by 44 percent and substantially improved an index of schooling outcomes that includes attendance, GPA, and persistence in school.

Another smaller program (Cook et al. 2014), which combined cognitive-behavioral therapy with academic support through one-on-one tutoring, sharply increased participants' measured learning and was projected to increase high-school graduation rates substantially as well. Especially given the link between prevalence of ninis and crime and violence in parts of Latin America, programs like these warrant additional attention.

Most of the interventions described here will be more effective and efficient if they are well targeted. One important tool to prevent drop-out, therefore, is *early warning systems.* The monitoring of such factors as attendance, behavior, and course-based performance, can identify pupils at risk who need further assistance (Pinkus 2008; Frazelle and Nagel 2015). Guidance notes emphasize the importance of starting the monitoring and interventions in the lower-secondary years, to prevent achievement gaps from becoming "achievement chasms" so large that upper-secondary schools will not be able to keep the youths in school (Balfanz 2009). Unfortunately, there appears to be no rigorous evidence on the impact of this approach, whether in Latin America or elsewhere (Dynarski et al. 2008). But given that an early-warning intervention is likely to be relatively inexpensive, since it can draw on existing administrative data on students, experimentation with this approach in the region seems worthwhile.

## 7.1.3 Other Interventions

One other intervention that appears to be particularly effective—not in secondary school, but long before children reach that level—is *early childhood development* (ECD). The Nobel Laureate James Heckman has made a compelling case for early intervention to foster later learning and attachment to the education system, particularly for disadvantaged children (Carneiro and Heckman 2003; Kautz et al. 2014). Brain development during early childhood (birth to five years of age) provides a strong base for later progress: skills and motivation produced at one stage foster the development of skills and motivation at later stages (Cunha and Heckman 2007). Early intervention can promote on-time school enrollment, reduce crime, foster workforce productivity, and reduce teen pregnancy (Currie and Almond 2011). Perhaps the best-known ECD evaluation, which tracked participants of the Perry Preschool Project in the United States, found that they were much more likely (by about 17 percentage points) to have graduated from high school than children in the control group (Barnett 1996; Schweinhart, Barnes, and Weikarts 2005; Schweinhart et al. 2005). Other rigorously evaluated programs from the United States and elsewhere show that ECD programs can lead

to increases in education outcomes associated with lower dropout, such as higher rates of college enrollment (Barrett et al. 1998), stronger reading abilities, and more pro-social behaviors in secondary school (Grantham-McGregor et al. 1997; Walker et al. 2006; Walker 2011). ECD's effectiveness in preventing dropout in the long term will be of little comfort to policymakers wrestling with an immediate dropout and nini problem, but it provides another reason to expand such programs. Particularly in countries in the region with high rates of undernourishment among young children and low levels of parental education, ECD interventions will likely be a valuable tool for reducing dropouts over the long term.

These are not the only options for attacking the dropout problem, of course, but they are the ones for which rigorous evidence favors implementation, or at least experimentation. The review by Almeida, Fitzsimons, and Rogers (2015) also identifies interventions that have not been shown to reduce dropout, although they often appear promising to policymakers. For example, rigorous evaluations of distance learning and information and communications technology interventions fail to show a positive impact on retention rates in secondary school. Similarly, the review found no conclusive evidence that technical and vocational education reduces dropout of marginal students. While these and other interventions explored in the review may have other benefits—such as improving learning—the evidence suggests that they should not be the first resort for attacking the dropout problem. As a summary of both the positive and negative lessons from the rigorous evaluation literature, box 7.1 lists which interventions are likely to be effective in which types of countries.

## 7.2 Moving Ninis into Employment

EVEN THOUGH A VARIETY OF INTERVENTIONS have proven effective in keeping youth in school, for the foreseeable future many youth will continue to drop out. While second-chance education programs can help some of them, many will never return to formal schooling, because of inclination, age, or financial responsibilities. What can governments, firms, and NGOs do to help them transition into employment and upgrade their skills?

In fact, there is a broad range of policy actions and programs to employ (Almeida et al. 2012, Betcherman et al. 2007, World Bank 2012). The programs can operate on both the supply and demand sides of the labor market, as well as at the connection between the two. On the supply side, a range of training programs with varying emphases (e.g., general academic, specific technical, or socio-emotional skills), settings (in training institutes or on the job), and durations can help build the human capital of ninis and

## Box 7.1  What Is the Right Policy Mix to Reduce Dropouts?

There is a great variety of causes behind dropout rates and ninis in the region. So the starting point should be a country-specific diagnosis that identifies whether the concentration of dropouts lies in lower or upper secondary (or in the transition between the two) and whether men or women are more prone to drop out. Central America and the Dominican Republic, for example, have high dropout rates in lower secondary. On average, close to 25 percent of the youth in the sub-region have left the education system by the age of 15. In Mexico and South America, the dropout problem is characterized by either low transition rates from lower to upper secondary or high dropout rates during the course of upper secondary (see Bentaouet and Székely 2014 for a thorough discussion on school participation patterns). In this group of countries, school enrollment is close to universal at age 15. Given the significant differences in dropout patterns, together with the varying impact of policy options, what would be the most effective policy response in these two groups of countries? Table B7.1.1 offers a menu of policy options tailored to the circumstances of each group.

Central American countries can benefit from the successful experiences of other Latin American countries in their quest to universalize primary and lower secondary education. Moreover, plenty of scope exists for combining interventions in a way that increases the effect of each. For example, countries in Central America can design well-targeted conditional cash transfers with information modules to inform students and their parents about the benefits of education. Although the evidence on how to reduce dropouts among men in upper secondary is scarcer, South American countries and Mexico can learn from the most recent successful socio-emotional interventions in the United States. Evidence in this area suggesting synergies between interventions offer a promising strategy to reduce upper secondary dropout rates. For instance, using early warning systems to identify youth at risk of dropping out, combined with targeted socio-emotional interventions and tutoring, could reduce dropout among this critical demographic.

### Table B7.1.1  Most Informed Policy Response by Groups of Countries

| Countries | Education level where dropouts concentrate | Type of intervention | Effective intervention |
|---|---|---|---|
| Guatemala, Honduras, Nicaragua, El Salvador, and Dominican Republic | Lower secondary | Demand | 1. Conditional cash transfers<br>2. Information |
| | | Supply | 1. School-based management<br>2. Full-time school |
| Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Panama, Paraguay, Peru, Uruguay, and Venezuela, RB | Upper secondary | Demand | 1. "Deferred" scholarships<br>2. Teen pregnancy reduction programs (for women) |
| | | Supply | 1. Socio-emotional learning<br>2. Tutoring and early warning systems |

other youth. The hypothesis underlying these programs is that for employers to be willing to employ ninis, the youth need to reach higher levels of productivity. At the hinge between supply and demand, public employment services (PES) can increase the speed and quality of job matches, especially in urban contexts and where demand is increasing. They can also identify the needs of individual youths and steer them to training, apprenticeships, and subsidized or market work. On the jobs side, governments can give youths a boost into the formal private job market via wage subsidies or help them into independent employment via entrepreneurship programs. The limited subsidy provided by the government is based on the premise that once there, the youths will be or will soon become productive enough to sustain the employment without subsidy. A final alternative is to provide employment directly through public service programs or last-resort jobs. These again should be time-limited vehicles for providing income support and allowing youth to play a positive social role in an employment-like setting. In fact, many governments work simultaneously on several such interventions through different ministries and grants to non-governmental agencies. (See Box 7.2 on setting the right mix of interventions.)

Of course specific policies for youth employment exist within the context of the wider labor market and its regulations. In stagnant economies, work is difficult to find for all, and therefore youth, who suffer disadvantage vis-à-vis experienced workers, will be especially challenged in the competition. Moreover, youth employment is especially sensitive to deterioration in labor market conditions, and so during downturns, it usually rises more than for other groups (Bussolo et al. 2014). Thus the panoply of indirect policies that determine growth rates, labor intensity, and skills mix are important, but beyond the focus of this study.

## 7.2.1 Training for Formal-Sector Employment

Training is the most common intervention by far, building on the fact that youth by definition lack experience and that poor youth have low levels of education. Twenty years ago, the predominant training model was classroom-based instruction in technical/vocational skills at government-run training institutes. While this model is still operating, often with substantial numbers of people enrolled, there is little evidence that it is cost-effective. For example, a recent experimental evaluation from Turkey, the first RCT of large-scale vocational training for the general unemployed, found no sustained positive effects, including for youth (Hirshleifer et al. 2015). A newer approach to training is the more market-based and comprehensive *jóvenes* model, named after the first eponymous program in Chile in 1991. There are rigorously evaluated sister programs in Colombia,

## Box 7.2  Guiding Principles for Setting the Right Mix of Youth Employment Programs

Policy choices for the nini challenge are difficult, because the need for action is urgent, the variety of options is great, and the evidence of success is mixed. Nevertheless, the existing literature supports some basic principles that can guide policymakers.

First, carry out thorough national (or sub-national) diagnostics to understand the principal barriers faced by youth. These diagnostics should consider the needs of different types of youth:

—Men or women
—Those with only lower secondary education, with complete secondary, or with some post-secondary
—Those with or without work experience
—Those who live in rural or urban settings, and in growing or stagnant economic areas
—Those with different tenures actively searching for jobs or those experiencing periods of inactivity
—Those with or without challenges around substance abuse, crime, or violence
—Those in dominant ethnic groups or those in groups that face discrimination

The nature and degrees of support needed will vary by such factors.

In matching programs and their designs to the diagnostic, it is important to strike a calculated balance:

- *Timing of interventions:* Since the job search takes time, it is natural for brief periods of unemployment to ensue between school and work or between jobs. It is also common that youth change jobs several times before settling, which is not necessarily undesirable. To intervene immediately in a spell of unemployment or inactivity may mean spending public funds on youth who don't much need assistance and who would have moved rather quickly into employment or re-employment. However, waiting too long can lead to "scarring," as discussed in Section 2.
- *Educational requirement:* To avoid providing encouragement to drop out of high school and to ensure an adequate background in general academic skills, many training programs require high school completion. In doing so, they rule out assisting those who most need training and assistance and who come from more disadvantaged backgrounds. Therefore, it is important to include programs for youths with lower levels of formal education, and, if necessary, adjust the modes of learning and increase the duration of training.

*(box continues next page)*

**Box 7.2  Guiding Principles for Setting the Right Mix of Youth Employment Programs** *(continued)*

- *Intensity of support:* Some youth will need little assistance in finding reasonable entry-level work; a good public employment service or short-course training may suffice for motivated individuals who have high school degrees and live in areas with plentiful jobs. Those who left school before completing lower secondary or who live in areas with stagnant labor markets will face more barriers to entry and may require more significant support to build skills targeted to the labor market. Youth from very disadvantaged homes or communities, especially where violence or substance abuse are common, may require even more comprehensive interventions to become competitive job candidates.
- *Support to young parents:* As discussed earlier, many of the ninis are young parents, especially young mothers. Most of these do not identify themselves as job seekers, though whether this is because they have made a rational decision that correctly factors in the long-run gains to lifetime employment options and earnings, or simply because of a lack of good childcare options, is not clear. To maximize the choice through agency and to minimize labor-force withdrawal resulting from such constraints, youth employment services should consider the needs of young parents—for example, by helping to locate, pay for, or provide childcare services for participants, especially for single parents living independently.

Finally, it is important to carry out each program using "best practice" according to context and content, but then evaluate and refine implementation over time. There is an emerging body of evaluation evidence that helps identify elements of success among interventions. Since so many questions persist regarding the best ways to help young people enter the labor market, and so much money is spent on efforts that bring only modest success, it is important to closely monitor and evaluate programs and then to refine them when their impact is small.

the Dominican Republic, Panama, and Peru, and similar programs in Argentina, Paraguay, Uruguay, and República Bolivariana de Venezuela. In this model, the training offered and curricula of courses are determined in tighter association with employers. The government finances the offering but may contract out the training to private or not-for-profit organizations. Training is short (on the order of three to six months) and is accompanied by practicum or apprenticeship experience, as well as job-search or job-placement support. In addition to technical skills, socio-emotional skills are usually taught. Jóvenes programs tend to be relatively small compared to the number of unemployed youth who might take part.

A number of studies suggest that jóvenes interventions in Colombia, the Dominican Republic, and Panama variously raised employment by 0–16 percent for different programs and groups of participants, with greater impacts for women, younger participants, and residents of the capital city. The programs increased hours worked by zero to seven hours per week and increased earnings by 0–22 percent (González-Velosa, Ripani, and Rosas Shady 2012). Evidence regarding the long-term impact of training programs comes from two recent studies. Attanasio et al. (2015) find that the Colombian training program "Jóvenes en Acción" had a positive impact on the probability of working in the formal sector and it improved earnings of participants by 11.8 percent, 9 years after the treatment. Kugler et al. (2015) not only confirm the positive long-term effects of Colombian program on employment and earnings but also show that participation boosts participants' further education and has spillover benefits on the education of family members.

These authors provide a detailed description and analysis of what can be teased out of the evaluations and surveys, and they discuss what seems to work or not in the programs and why. While there are few clear answers, take-away messages seem to confirm that the inherent logic of the programs is sound, but there are many conflicting objectives or balances to be sought in their design and implementation.

## 7.2.2 Support for Entrepreneurship

With formal-sector employment such a small part of the total in low- and middle-income countries, most youth leaving school do not get formal-sector jobs. So preparing them for the reality of life in the informal sector through entrepreneurship training is an intuitive choice for many policy makers. Programs may provide training (in specific technical skills such as business and managerial skills), financing (grants or loans), or a combination. Such programs go against evidence that self-employment is not commonly the first job for youth. The more common trajectory is from school to wage employment in the informal sector to wage employment in the formal sector, with self-employment occurring only after skills and access to financing have been acquired (Cunningham and Bustos Salvagno 2011).

Cho and Honorati (2014) conducted a meta-analysis of evaluations of programs meant to raise entrepreneurship in developing countries over approximately the last decade. All told, the authors examined 37 studies from 25 countries. These included a range of interventions (vocational, business, or financial training, financial support, counseling and various combinations thereof) and outcomes (various indicators of labor activities, labor income, business practices, and business performance).

The authors also looked at the impact on different groups—women, youth, those with higher education, social assistance beneficiaries, current entrepreneurs, clients of microcredit, and resident of urban areas. Overall, 28 percent of the estimates of impact were positive and significant, with an average effect size of 0.19 standard errors. This does not mean that three quarters of the programs are totally ineffective, since multiple outcomes are measured for most evaluations and programs may affect some but not all of them. The impacts on attitudes or business practice are more often significant than those on labor activity (employment, hours of work, and enterprise establishment or closing) or labor income, which are of more concern in this paper. The findings suggest that involving the private sector in program delivery can make the programs more effective, and that the financial components have better impacts for women than for men, perhaps because women may be more credit-constrained initially. In sum, although heterogeneous, the entrepreneurship programs' impacts were found to be more favorable for youth, which is encouraging for using them to help young people move out of nini status.

### 7.2.3 Employment Services

PES aim to widen the pool of vacancies known to job-seekers and thus improve their chance of finding one that matches their skills, location and preferences. Firms list their vacancies with employment services if this can bring them a larger or better screened pool of contacts than passive action like relying on applications. PES can provide a variety of additional services, helping individuals to understand the labor market and their own skills and preferences, and to formulate a plan. The services may serve as a nexus of referral or operate a variety of training or subsidy programs themselves. Some administer unemployment benefits.

PES are among the active labor market policies most consistently rated as cost-effective, at least in highly formal labor markets. But most evaluations are for the wider population, not just youth, and the evidence is mostly from OECD and Eastern and Central European countries (Betcherman et al. 2007; Almeida et al. 2012). Promoting youth employment is a core challenge for these services. A PES to PES Learning Dialogue among European Union members (Scharle and Weber 2011) identified keys to success in the employment services for youth as including:

- Active outreach to youth—via schools, community centers, youth activities, street workers, social media, and the like
- Early access to services before scarring can take place

- Individualized plans
- Specialist staff trained in dealing with youth, especially youth with multiple barriers to employment
- Contacts with employers with jobs suitable for the youth served
- Wage subsidies as needed to bridge the gap between employers' demands and the productivity of the most disadvantaged

Evaluations to date paint a mixed, though on balance positive, picture of effectiveness, partly because the programs being evaluated differ greatly in design and implementation. Even programs that achieve positive impacts often do so only modestly. Of 73 interventions included in the Youth Employment Inventory put together by Betcherman et al. (2007) that had been evaluated against a counterfactual, 60 percent had positive impacts. Yet in the subset of these successful cases for which the evaluation also analyzed costs, only 55 percent were judged to be cost-effective. This problem of uncertain success is not exclusively Latin American, or even just a problem of developing countries, but global. If anything, the track record is worse in OECD countries, perhaps because of more rigid labor markets, perhaps because the relative disadvantage of the youth in some of the more finely targeted programs is greater. The CEDLAS 2013 review of recent Latin American youth employment programming found that of the 65 programs tallied, just 12 had rigorous impact evaluations and seven were cost-effective. In all cases, the programs improved at least one employment indicator.

# 8.  Conclusion

This study sets out to do more than just improve our understanding of a pressing issue. It also aims to spotlight the problem for public awareness and give voice to its protagonists: the ninis of Latin America. Ernesto (a pseudonym), a 21-year-old man interviewed for this study, provided his perspective on life and the tribulations he faces as a nini in his native Honduras. Ernesto lives in one of the most dangerous neighborhoods of Tegucigalpa. His daily reality is scarce public services and resources, limited opportunities, and the constant threat of crime and violence. While not all ninis face the challenges Ernesto does, his story encapsulates many of the feelings and aspirations of youth in the region, as well as the constraints that limit them. His story and other stories within this diverse group contradict the prevalent perception of ninis as unmotivated youth whose indifference keeps them trapped in poverty and despair. Rather, the accounts highlight the frustrations and hidden costs borne in the region today by generations of young people:

> —My parents told me: "Think about it, there is nothing here for you," and that is the truth. The only thing you find in the streets is someone looking to kill you or mug you, or getting into trouble yourself. The situation here is very, very difficult, so I find myself at home with nothing to do. {But} I have to find something productive to do.…

> —Even if you do find one [a job], you have to hold on to it… Employers basically treat you like a slave. So I think about my circumstances, the needs around me. You have to do everything you can to make a better life for yourself. You want your future children to have a good life and have everything they need. Not like a king, but that their basic needs are met, especially [that they have] their father's love; to make sure that they know that someone supports them….

> —This year [without school or work] has been really hard for me and has really taken a toll on me. No matter how, I have to leave [migrate]; I have no other option. It's a complicated situation, because one has to leave and that's it. That's life; I hope that very soon I can change my lifestyle, my way of thinking…

> —I hope my experience shows others that there are many people who don't have opportunities in Honduras, like me… [a]s a result of the political situation, violence, lack of employment and educational opportunities, and other factors.

Ernesto eloquently makes it clear that he is not expecting a handout: he is committed to building a better life for himself and his future children, whatever it takes. But even if he makes it, millions of his peers are likely to remain underemployed and undereducated if they don't get more help. At best they will cycle for years through unstable jobs. How will the countries in the region respond? Will they simply hope that the slow decline in the rate of ninis will continue—even though their numbers are rising, along with the share of male ninis—and that decades from now Latin America

will reach the lower rates of higher-income countries? Or will Latin America act to provide more opportunities for its young men and women, at precisely the time when demographics call for seizing the day? Ernesto knows the right answer, and so should the countries of the region: "You have to do everything you can to make a better life…."

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