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Idle Youth in Latin America:

A Persistent Problem in a Decade of Prosperity

By

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Introduction

The widely mentioned and studied demographic "*window of opportunity*" seems to be reaping some of its benefits during the first years of the 21st century in Latin America.[2] As predicted, since the 1990s and in some countries a decade earlier a historic sharp decline in economic dependency rates started with the acceleration in the growth rate of the 15 to 24-year-olds, as compared to those under 15 and the over 65. This means that the share of the working age population (and the potential of increasing productivity) is close to maximum levels. Furthermore, the patterns imply that the situation will prevail for about 20 years until the 65 and over age group begins to grow faster, which will bring new challenges to the region.

After the "window" opened, the 2000s have witnessed the highest real gross domestic product growth rates since the 1970s, reaching rates of over 4 percent on average in 2008. At the same time, there have been important reductions in poverty from almost 40 percent in the year 2000 to 30 percent in 2009[3], and even the previously persistent high income inequality levels seem to be registering a decline.[4]

However, this more prosperous environment has not been free of problems. One widely recognized challenge is that if the region is not able to invest in generating enough educational and employment opportunities for the fast growing 15 to 24 age group, the "window" will not be fully capitalized and the possibilities of producing enough resources to support those over 65 in the future will be considerably hindered.

This is especially sensitive for those in the 15 to 24 age range who are neither in school nor in the labor market. If this situation is not addressed soon, Latin America will not be able to seize the demographic opportunity, which will have devastating development consequences. This group of individuals, which we refer to as "*idle youth*" for the purposes of this paper, is subject to increasing vulnerability and lack of opportunities, and can become a source of potential risks for society at large in areas such as crime, addiction and insecurity.

Within this group, those between 15 and 18 years of age are particularly worrisome. At this stage of the life cycle, as compared with those 19 to 24, there is no ambiguity that being in the formal

[2] Some examples of the large literature on this issue are the Inter American Development Bank (1999) and Behrman et al. (2002).

[3] See SEDLAC (2010).

[4] This is shown in López Calva and Lustig (2010). According to the most recent data (SEDLAC (2010)), the Gini income inequality index declined during the 2000s in 12 out of 17 countries in the region.

education system is the most desirable and socially productive activity.[5] In most countries, those 18 and under are still in school age and supposed to be attending high school or its equivalent; furthermore, those under the age of 18 have not reached the legal working age and their physical, mental and emotional development process is still underway. In this sense, being in school in a protected and constructive environment is determinant for developing individual personality and a capacity for decision-making, constructing behavioral patterns, accumulating human capital, acquiring capabilities for social interaction, conforming one´s personal identity and relationship toward peers, and developing civic values, among others.[6] These are also critical years for integration into the community, for acquiring social values, and for building trust in institutions and the rule of law. Without the adequate protection, support and integration mechanisms, idle youth are totally exposed to situations that may affect their future development prospects negatively and threaten others in their societies. [7]

This paper aims at improving our understanding of idle youth in Latin America, with special attention to those in the 15 to 18 age range, in order to identify adequate policies for supporting them and reintegrating them into society. According to our calculations with the most recent data available, 18.5 percent of Latin American youth in this age group (9.4 million individuals) are currently idle. During the last 20 years, their share of the population has been reduced by less than 6 percentage points but the absolute number of individuals belonging to it has remained practically unchanged due to demographic growth.

Apart from characterizing the idle youth, we present an analysis of the patterns of their evolution in 18 countries across the region, identifying the set of micro and aggregate variables that are correlated with their dynamics. We explore the relationship with the household's socioeconomic characteristics (including income) and with the structure and evolution of labor markets. We identify the links with the schooling system and school dropout patterns; we verify whether the group responds to changes in the environment, including overall GDP growth and economic shocks. We also explore the possibility that the idle youth are simply a demographic transient phenomenon. We perform our analysis for the 15 to 18 and 19 to 24 age groups separately to capture the possibility that school dropouts and labor market participation decisions are of a different nature in each one of the subgroups.

[5] The 19-24 age group has its own specificity. One important difference is that at these older ages the decision for continuing in the education system and participating in the labor market might be complementary (i.e., individuals that cannot work have to give up educational possibilities as well). Furthermore, especially in the case of women, cultural patterns in Latin America may influence the voluntary decision of not participating in the labor market nor enrolling in school, and choosing for instance, household activities as an alternative. The problem of idle youth refers to lack of educational and labor opportunities and therefore, should not include these other situations, where the status is not due to exclusion but chosen voluntarily.

[6] As shown by Spinks (2003), during these years of the adolescence period, important improvements in the neurological development of the human brain take place. The frontal cortex that determines memory, planning capacity, organizational skills and even temper, is under fast evolution during this stage, and the cerebellum area that regulates decision making capabilities is still under development.

[7] The World Bank (2007a, b) measures the economic costs of not offering employment opportunities to groups of unemployed youth in several countries. Just considering forgone taxes and potential wages earned, the costs are on the order of 10 percent of GDP.

In order to perform our analysis, we process micro data in 215 household surveys for 18 Latin American countries spanning from the early 1980s to 2010 and build a panel of 215 observations on the proportion of idle youth that we later relate to aggregate variables for the same countries and years. The countries included represent 96 percent of the total population in the region. The characterization of the phenomenon is of interest in itself as it leaves little doubt of the urgency of institutionalizing policies for supporting and re-engaging idle youth into society. Ignoring the issue is likely to generate future risks and the need for more costly and elaborate public interventions in the future.

The paper is organized in six sections. Section 1 presents the data as well as a characterization of idle youth across Latin America. We identify the main characteristics and recent changing pattern over two decades, which offers a clear image of the threats of not addressing the issue in the following years. Section 2 sets out our main hypothesis on the factors associated with the affluence and persistence of idle youth during the past decades. Section 3 explores the importance of micro factors by estimating the probability of being in the idle youth group and a series of household characteristics. We explore the differences across countries as well as variations in the probabilities over time. Section 4 presents our econometric analysis using the panel constructed from household surveys, which is lined to data on aggregate indicators from various sources. Section 5 engages in a discussion of the policy alternatives for addressing the problem of persistent idle youth in the region based on our results. Section 6 discusses our conclusions.

1. The prevalence of idle youth in Latin America

There is an abundance of literature on the more general issue of at risk youth in Latin America. The age range specified in the variety of studies spans from 12 to 29 years of age, depending on the source and approach of each investigation. The range of scope and focus is also wide, going from issues such as school dropouts, teenage pregnancy, addictions, labor market participation, crime rates and etc. However to our knowledge, this is the first to concentrate exclusively on idle youth in the critical 15 to18 age group for the majority of the countries in Latin America for more than two decades.[8] Incorporating the under 15 in the analysis would imply including a set of topics and problems related to childhood, which are significantly different. In addition, as mentioned, the over 18 would involve a diverse set of dynamics and decisions that are very different due to the legal status of labor at these older ages.

The following subsections present the database constructed for the purposes of this study as well as the main features of the evolution of this group.

Construction of the household survey database for idle youth

[8] Some of the relevant related studies are Cunningham, et al. (2008), Rodriguez (2010), World Bank (2003, 2008), Duryea, et al. (2003), and Hopenhayn (2008), among many others.

One important restriction for analyzing the idle youth group in Latina America is the lack of systematic information on its magnitude and evolution over time. To provide a first complete characterization of this phenomenon, we gathered, processed and standardized 215 household surveys for 18 countries in the region spanning the years 1980 to 2010. We homogenize a series of variables including household structure, economic activity, socioeconomic characteristics, education, income, etc. to produce a dataset of comparable statistics on idle youth, defined as individuals in the 15 to 18 age range that are not enrolled in school nor working at the time when the survey was performed. It is important to note that, as in most household surveys, this status is self-reported. Similar statistics are produced for the 19 to 24 age group for comparison.

Table A1 in the appendix specifies the surveys processed for each country. Not all countries are equally represented in the data. We used 21 surveys for Paraguay and Venezuela, 16 for Peru and Brazil, 15 for Costa Rica, 14 for El Salvador, 13 for Mexico, 12 for Honduras and Argentina, 11 for Panama and Colombia, 10 for Uruguay, nine for Chile and Dominican Republic, eight for Bolivia, seven for Ecuador, six for Guatemala and four for Nicaragua. We have 14 surveys for 1980-1985, 20 for 1986-1990, 33 for 1991-1995, 59 for 1996-2000, 61 for 2001-2005 and 28 for 2006-2010. The surveys are representative of the total population of each country, with the exception of Argentina for surveys prior to the 2000s and Uruguay where the sample is only for urban areas. All in all, the data expanded with population weights includes information for 554 million individuals (at 2010 population statistics), encompassing 96 percent of the population in Latin America.

Stylized facts: Idle youth in Latin America over two decades

Figure 1 presents the evolution of the average share of Idle Youth (IY hereafter) in Latin America between the years of 1989 and 2009. The trend starts in 1989 since there are seven countries –Dominican Republic, Ecuador, Guatemala, Nicaragua, Panama, Peru and Uruguay- where observations prior to 1990 are not available.[9] In order to construct the averages, we take the data closest to 1990 for each country and perform linear interpolation between each of the subsequent years for which information is available. According to our estimates, the unweighted average share of idle youth in the 15 to 18 age group in 1989 was of 24.3 percent or 10.3 million individuals (weighted averages are very similar and we do no report them). Interestingly, the proportion of idle youth declined only modestly in the next two decades, reaching 18.5 percent in the year 2009. This is a decline of less than 6 percentage points, which amounts to 9.4 million youth. In the course of 20 years, the number of idle youth in this age group remained practically constant.

Our figures show that the 1990s registered an increase in the number of idle youth from 10.3 to 11 million in spite of a decline from 24.3 percent to 22.1 percent relative to the 15 to 18-year-old population. Evidently, the trend is driven by the fact that these were years of high population growth for this age range as a result of the demographic transition triggered decades ago. For the

[9] All surveys dated before 1990 are used for the econometric estimates presented in the following sections. Argentina, Mexico and Peru are the only countries for which data for the year 2010 is available to us, so the descriptive statistics presented in this section comprise only until 2009. However, the information for 2010 is included in the econometric analysis.

period 1990-2009, both the share and number of idle youth declined at a faster pace, resulting in a reduction from 11 to 9.4 million during these years. [10]

The central result that emerges from the picture is that idle youth have been a persistent phenomenon in absolute and relative terms for the last 20 years in Latin America. The modest reduction during this period contrasts with the evolution of other indicators, including GDP per capita, which according to figures from the Economic Commission for Latin America and the Caribbean (ECLAC) increased by more than 50 percent in real terms during the same period[11]; or with the regional poverty estimates by the Socio Economic Data Base for Latin America and the Caribbean from the World Bank (SEDLAC), which show a decline in the proportion of poor individuals from 27.9 percent in 1992 to 19.3 percent in 2009; the total number of poor individuals in the region was reduced by over 30 million from 119.3 to 89 million; and even with respect to the traditionally high-income inequality levels, which have been reduced by .5 points of the Gini index during the 2000s and represents around 10 percent of the value of the index. [12] Thus, idle youth seem to have become a structural phenomenon even under the relatively prosperous environment of the first decade of the 21st century.

Figure 1 also presents the data for the 19 to 24 age group. This group has two important differences with the younger 15 to 18 range. The first is that labor market participation has legal status and is therefore much more prevalent, which would tend to reduce the propensity to belong to the idle youth group. The second is that school attendance rates are much lower than at younger ages, which would tend to fuel the participation in the idle youth group. According to Alfonso et.al. (2011), school attendance rates decline from an average of 50 percent at ages 15 to 18 in Latin America to around 25 percent for those over 19 years of age. Our estimates reveal that the presence of the idle youth group in the 19 to 24 age bracket is considerably higher than in the 15 to 18 age range, suggesting that the higher propensity to participate in the labor market is not able to counter balance the incidence of lower school attendance. In 1989, the ratio of idle youth in the 19 to 24 age group versus ratio in the 15 to 18 group was equivalent to 37 percent, but this ratio increased to 42 percent in 2009. Thus, relatively speaking there was an even more modest reduction in the prevalence of idle youth at older ages. The figure also includes the evolution of the full 15 to 24 age group, which shows a similar behavior than the 19 to 24 bracket.

Panels A and B in Figure 2 present a break down by gender (for the 15 to 18 and 19 to 24 age groups, respectively). Our results reveal that the reduction of idle youth among women was the driving force behind the (small) reduction observed throughout the 1989-2009 period for both age groups. In the case of those aged 19 to 24 the difference was larger. In fact, the share of idle youth males remained practically constant throughout, while the share of idle youth females declined by around 5 percentage points. For those aged 15 to 18, trends are similar although reductions are more modest in the case of women –of only 2.7 points. In both cases, it can be said that the gender composition of the idle youth group has shifted to increase the presence of

[10] The most recent figures in the Graph, covering up to 2008 and 2009 for most countries, are different from those presented in Székely (2011), were the latest estimates are for the years 2005-2007.

[11] See http://websie.eclac.cl/sisgen/ConsultaIntegrada.asp?idAplicacion=6&idTema=131&idioma=.

[12] See SEDLAC, 2011.

males. This shift in the gender composition is the outcome of a general increase in women's education levels and labor participation rates in the region throughout the last 20 years. The idle youth phenomenon would actually be less prevalent had the dynamics among men followed similar patterns with those for women.

Table 1 presents the data by country for the 15 to 18 age range. The country with the highest proportion of idle youth around 2009 is Honduras with 28 percent, while the lowest is Bolivia with only 7 percent. There are other eight countries with shares above the Latin America average of 18.5 percent, including Peru (26.2 percent), Guatemala (25.3), Nicaragua (24.4), Mexico (22.0) Panama (20.7), Chile (20.5), El Salvador (20.4), and Colombia (20.0). The remaining countries register levels below the Latin America average with Brazil (11.7), Paraguay (11.9) and the Dominican Republic (13) showing the lowest shares. In absolute terms, the largest numbers in 2009 are found in Brazil and Mexico with around 2 million, respectively, followed by 865,000, 754,000 and 566,000 in Colombia, Peru and Argentina, respectively.

According to our results, the countries where the largest reductions in the share of idle youth have been registered in the past two decades are Venezuela (-35.1 percentage points), Paraguay (-10.7), Uruguay (-9.2), Nicaragua (-8.3) and Costa Rica (-7.9), while at the other extreme, Colombia (+4.2 points), El Salvador (+3), Chile (+1.9) and Guatemala (+0.9) are countries registering increases. Interestingly, as shown in the last column of Table 1, there are 10 countries where the absolute number of idle youth increased during the course of the 20 years under analysis. The largest increases are found in Colombia (with an incorporation of 319,000 youth in to this group), Argentina (with 109,000) and Guatemala (162,000 more). The largest declines are found in Brazil (847,000 less) and Venezuela (a reduction in 558,000).

Tables A2 and A3 in the appendix present similar results for the 19 to 24 and the 15 to 24 age ranges. When the older 19 to 24 age group is considered, five countries show increases in the share of idle youth from 1989-2009: Colombia (+5.2 points), Guatemala (+4.5), Argentina (+3.8), Paraguay (+1.9) and El Salvador (+0.4). The sharpest declines are found in Uruguay (-26.9 points), Peru (-20.2), Venezuela (-16.7), Nicaragua (-15.4) and Honduras (-11.1).

Patterns of idle youth in the 15 to 18 age range for 1989-2009

Based on the most recent data available for the 15 to18 age group, Table 2 shows the distribution of idle youth across the income distribution. On average, 54 percent of idle youth live in households in the poorest 40 percent of the population, while only 10 percent are located in the richest 20 percent of households. The countries showing the most polarized distribution (where the concentration of IY among the poor is larger) include Uruguay, Costa Rica and Ecuador, where a small minority of idle youth are found in the richest sectors of society.

Figure 3 shows the correlation with educational levels. According to our calculations, 51 percent of idle youth did not complete primary school, 33 percent did not finish secondary (the equivalent to the 3 years post primary), while 13 percent never completed high school (post secondary and pre-higher education). This suggests that early drop out from the education system increases the probability of joining this vulnerable group.

Another interesting feature is shown in Figure 4, where the proportion of idle youth covered by the formal social protection system is included. According to our calculations, the proportion of idle youth with social protection is extremely low. In Paraguay, Peru, Venezuela, Nicaragua, El Salvador, Honduras, Argentina, Panamá and Bolivia, the proportion is under 10 percent. Only Chile and Costa Rica register shares over 30 percent.

These preliminary results are in line with other estimates found in the literature on youth at risk in Latin America –which generally focuses on wider age groups and situations. For instance, Cunningham and Bagby (2010) use youth surveys for Chile and Mexico and find that the probability of youth falling into risk situations decreases with the level of income and education of the family, and increases when the relationship with parents is problematic. Recent evidence from Brazil by Dell Aglio et al. (2007) also points to this. Risk patterns for the youth in the 15 to 24 age range increase considerably when household incomes are below the poverty line. It is intimately related with racial characteristics (where white youth are subject to lower risks) and there is also a high correlation with the socioeconomic status of the immediate social environment including schooling.

In a comprehensive study on youth at risk in the Caribbean region, Cunningham et al. (2009) classify youth into four categories depending on the type and intensity of the risks that they face. They label Type 0 as those that are not exposed to particular threats; Type 1 are those that are potentially subject to risks given their characteristics but their behavioral patterns do not differ substantially from those in the Type 0 category with respect to risk prevalence; Type 2 are exposed to risks – for instance, of dropping out of the schooling system— without having materialized the risks into negative behaviors, such as actually dropping out; and Type 3 are those who have been exposed to important risks and have already suffered their consequences, including dropping out from school. According to our characterization, idle youth would be classified in the Type 3 risk group. Interestingly, Cunningham et al. (2008) estimate that the number of idle youth in Argentina, Chile and Mexico – which are the countries for which they have information— is of about 30 percent for the 15 to 24 age range. This is close to our average estimate of 28.6 percent for the same three countries (reported in Table 1). The aforementioned study identifies poverty, early school dropout, belonging to indigenous groups and living in rural areas as the personal characteristics most correlated with the probability of being in the at risk youth group.

Cunningham and Correia (2003) also identify poverty, poor education, problematic family relationships and gender as the main elements increasing risks for the youth in the Caribbean region. Similarly, Hopenhayn (2008) argues that the main determinants of risk for the youth in Latin America are poverty, the lack of employment opportunities and social inequities.

2. Explaining the prevalence of idle youth: Hypotheses

The literature on at risk youth has grouped the determinants of vulnerability for this group into three broad categories: individual factors, family-community effects and aggregate macro

conditions.[13] We discuss these determinants in order to set out some hypotheses to be tested with our data set in the next sections.

Individual and family factors

The first set of factors has to do with personal and household characteristics that determine or influence individual behavior in one way or another. Personal characteristics include physical features such as race, ethnicity, gender, biological determinants and genetic endowments. Household characteristics refer to the immediate context of residence (the household), which have strong influence on psychological development, cognitive skills, personality, social skills, etc. In particular, family members can play a critical role in assuring a protective environment for avoiding external risks but they can also be a source of risk when violence, abuse, discrimination or exclusion are prevalent within the household. Family poverty is a situation that leads to risk exposure and can nurture negative behavior when protective mechanisms are absent. Household characteristics influencing these features include structure, size, socioeconomic conditions, general household environment, and attitudes toward violence, respect, etc.

Table 3 presents some general indicators that provide a broad idea of the magnitude of individual risk factors for the 15 to 18 age group.[14] One interesting feature is the rate of teenage pregnancy per 100,000 inhabitants. The average for the region is of 75.5 and there are extreme cases, such as Guatemala, Honduras, El Salvador, Dominican Republic and Nicaragua with rates over 100. At the opposite extreme, Uruguay, Brazil and Chile report levels of 50. The second and third column of the Table shows data on the percentage of youth that declare Marihuana consumption in four countries. The proportions go from 5.4 percent in Bolivia to 10.3 in Argentina, to 12.2 in Mexico and 18.8 in Chile. Interestingly the rates are much higher than the result for older ages. In all cases, youth consumption rates are higher, reaching a difference of 2.7 times between the youth and overall population in the case of Chile.

Table 3 also shows the proportion of 17 to 18 year olds that declare consuming alcoholic beverages. The information is suggestive, since in all the countries in the Table for which information exists, it is illegal to consume such substances at these ages. The average for the seven countries with data is 55.5 percent, while in Uruguay it reaches 74.5 percent and Argentina, Chile, Brazil and Mexico register 67.9, 65.5, 63.1 and 53 percent, respectively.

The last columns of the table include homicide rates per 100,000 inhabitants for six countries for youth populations and for the overall population. The main feature is that the rates for the youth groups is 3.2 times higher than for the rest, reaching averages of 110 homicides as compared with 33.8 for the population at large. Colombia, Jamaica and El Salvador show the highest levels with 212.5, 188 and 133 homicides per 100,000 inhabitants.

[13] See for instance Cunningham, et al. (2009) and World Bank (2003) for a broader discussions of this classification.

[14] Not all the data presented in the table is for the 15 to 18 age group. However, these indicators are illustrative of the circumstances in which youth in the LA region are developing. As can be seen, the table uses data from a variety of sources; in some cases, such as teenage pregnancy rates the most recent data available is for the year 2006 while for other indicators statistics are more recent.

These data can be interpreted as an expression of the underlying problem of dysfunctional, violent and risky behavior of subgroups among the youth that would be classified as belonging to Type 3 risks, and that tend to be closely linked to individual and household characteristics. One of the main explanatory factors emphasized recently in the literature for understanding these outcomes are the deficiencies in early childhood development. For instance, Grantham-McGregor et al. (1999) and Schady (2007) present solid evidence of the relationship between personal characteristics at age 5 including vocabulary, memorization capacity and visual integration, and the same features later in life for Brazil, Guatemala, Ecuador and Jamaica, respectively. This means that patterns already observed early in life without adequate treatment result in large probabilities of observing the same or even more pronounced deficiencies later in the course of the life cycle. Similarly, Case and Paxon (2008) use results from capabilities tests performed at early ages and about 30 years later, and show that around 30 percent of the outcomes observed later can be explained by initial conditions. Paxon and Schady (2007) use data from Ecuador to show that belonging to a family with low socioeconomic level and in the absence of early childhood interventions, significantly hinders individual development prospects, to an extent that even the education system cannot counter balance later.

In a series of recent studies, Nobel Laureate James Heckman and a group of coauthors have emphasized the importance of the immediate environment, support and care at early ages for the outcomes later in life.[15] As they show, investing in a protective and positive environment at early ages improves substantially learning abilities, social skills and productivity because during the process of brain development, each learning process and the neuronal interconnections that it generates allows for successive more complex learning abilities due to the chemical balance of the brain that triggers with each learning process. A precondition for higher levels of learning and rationalization is the development of basic capabilities. Promoting new interconnections at early ages allows for synapses to take place in the future. In contrast, deficiencies in nutrition, early education, health or an environment of violence and risks lead to patterns of vulnerable personality, propensity to depression, lower intellectual capacity and lower social skills to interact in society, precisely because the relationship between these events and brain development. Among the large literature on the subject, Kundsen et al. (2004) is particularly eloquent in demonstrating that in order to improve opportunities and capacities in future generations, the most efficient and powerful mechanism is guaranteeing a positive and stimulating immediate environment during the first years of life.

In sum, the evidence is very clear about the role of early development on future outcomes. Therefore, a clear hypothesis to explore with the data set we develop from household surveys for Latin America is whether the proportion and number of idle youth is related with observable household or personal characteristics available in surveys.

[15] See Cunha and Heckman (2007), Cunha, etal. (2006), Heckman (2006a, 2006b, 2006c), Heckman (2007) and Heckman (2008).

Community factors

Community factors have to do with the provision of services, such as urban infrastructure, health, education, security, the rule of law and other elements that mediate between the individual and its environment. Deficiencies in the provision and quality of these services may increase specific risks and may even trigger other vulnerabilities. For instance, the lack of high school education services at the local level may considerably increase the cost of enrolling in school for youth populations, increasing the risk of dropout.

In fact, dropping out of the education system between the ages of 15 to 18 is a highly important issue for the Latin American region and may be closely related to the idle youth problem. This is an age at which formal employment is not yet considered to be legal, and where as mentioned the process of personality, psychological, and physical development is still underway. Not having access to a protective and constructive environment will most likely have negative effects over the propensity to future risks.

Figure 5 presents the rate of coverage for primary education across Latin America. As can be seen in all cases, with the only exceptions of Guatemala and Nicaragua, coverage has reached levels of around 95 percent and for 14 out of the 18 countries under analysis the rate is above 95 percent. In the transition from the first years of primary to the following cycle of three years of lower secondary education, an important decline is observed. At the aggregate level, the share of students of the relevant age who are actually in the education system, declines to 65 percent— that is one out of three youth are already out of school. As shown in Figure 6, there are seven countries with rates below average, including Panama, Paraguay, Ecuador, El Salvador, the Dominican Republic, Guatemala and Nicaragua.

However, the largest dropout rate in the schooling system takes place precisely at ages 15 to 18 that correspond to the upper-secondary level (equivalent to high school). Figure 7 shows that on average, only 33 percent of those in the relevant age group are actually in school— that is two out of every three youth are not enrolled. The largest declines in coverage are observed in Venezuela (from 67 to 38 percent), Paraguay (from 58 to 40 percent), El Salvador (from 55 to 34 percent) and Honduras (from 50 to 17 percent).

Apart from the important challenge of high dropout rates, there is an additional problem that is precisely manifested at age 15 which has to do with the quality of education and which may be one of the explanations for high dropout. Figure 8 presents the results from the PISA international examination performed in about 66 countries in the world in 2009.[16] This examination provides a measure of the level of competencies of 15-year-olds in mathematics, reading and communication skills, and science, and is applied every three years. The PISA results have been widely interpreted and used as a measure of education quality.

According to the 2009 results, the Latin America region is considerably lagging in quality. The nine Latin American countries participating have average results for mathematics that are more than 20 percent below the overall average and rank between number 47 (Chile) and 64 (Peru) out

[16] PISA is the Program for International Student Assessment, by the Organization for Economic Co-Operation and Development.

of 66 countries.[17] Most worrying is the disparity with respect to countries such as South Korea, which only 30 years ago was behind Latin American countries in terms of education levels and now shows significantly better education outcomes. If the average Latin American country participating in PISA were to improve by 34 points in mathematics every six years, which is the rate observed for Mexico between 2003 and 2009, it would still take 24 years to reach the level that South Korea achieved in 2009.[18]

The PISA tests allow for classifying each student in four different levels according to the development of relevant competencies and skills. Level 1 corresponds to those that do not have the capacity to develop the most basic cognitive activities that are characteristic of their age. Level 2 classifies those that only have the most basic competencies. Level 3 includes students that have reached a satisfactory level and can perform more complex cognitive activities, although not at the highest optimal level. Level 4 include those that perform highly and are able to take full advantage of new technologies and have the capacity to innovate in a continuously changing environment. Figure 9 compares the distribution of students in these four categories in the average Latin American country and the overall average. While in Latin America practically one out of every two students is in level 1 in each of the three areas, for the average country the proportion is less than 22 percent. The most extreme differentials are observed in level 4, where the average country includes over 28 percent of students in the three categories –reaching 32 percent in mathematics- while for the average Latin American country the rate is lower than 7 percent.

This clearly illustrates that even for those youth that continue in the education system, there is still a general problem of quality that generates students with low development of the skills that are most relevant. These figures clearly signal the obsolescence of the education models and services in the region and are likely to explain an important part of the high dropout precisely at age 15. Also, PISA test results are much lower in public schools than in private schools in Latin America (OECD, 2011, pg.136). Given that public schools typically enroll students with lower socioeconomic status, the low quality of education disproportionally affects low-income groups which are then more likely to drop out.

In summary, community factors would be expected to play an important role in explaining the size of the idle youth group across the region. The straightforward hypothesis to be verified empirically is that low quality and coverage of education and youth services, as well as community infrastructure and services, are likely to increase the propensity to belong to the idle youth.

[17] The lowest LA performers are Peru and Panamá (numbers 64 and 63), followed by Argentina (59), Brazil (54), Colombia (53), Trinidad and Tobago (52), Uruguay (49), Mexico (48) and Chile (45).

[18] Other international tests provide a similar view. For instance, according to the TIMSS test for mathematics for the year 2007 shows that the two LAC participating countries Colombia and El Salvador trail most of the other 48 nations, ranking as number 40 and 45, respectively.

Macro factors

Macro general factors refer to those elements in the general environment and institutions that affect individuals but when compared to family and community effects are not influenced by each person´s behavior. They include elements that are external and that affect large groups of society that might impact the decisions of the youth, including macroeconomic conditions, volatility, economic shocks, inequality of opportunity, the rule of law, cultural patterns, etc.

There are a large number of studies documenting the effects of economic shocks on school dropout rates. Some examples are Patel (2009), Singh et al. (2009), Mendoza (2009), Ramesh (2009), Mehrotra (2009), Keane (2009), Friedman and Levinsohn (2002), and Shang and Wu (2003), among many others.

Additionally, when school dropout is combined with restricted opportunities in the labor market, it would be expected that the probability of becoming idle would increase. Figure 10 shows some evidence of this. As is well known, unemployment rates among younger populations are usually considerably higher than those of older populations. An interesting feature from the most recent data (presented in the figure) is the high level of current unemployment among young participants in the labor market. While for the total working age population, the rate in Latin America around 2009 is of 8.2 percent, the level is over 22 percent; this is almost three times higher- for those between the age of 15 and 18. Countries such as Uruguay, Dominican Republic, Brazil, Argentina, Colombia and Chile reach levels over 30 percent. Only Honduras and Guatemala register levels that are closer to the general average.

Recently, there has been some controversy around the causes of higher unemployment rates for the youth in the Latin American region. The traditional view is that unemployment is higher at earlier ages due to labor market restrictions such as low experience for these age groups, which makes them less attractive. Employers have to invest in training more heavily for young workers and this makes them more costly. One policy reaction to this situation would be to subsidize training or hiring, and there are examples of public programs of this type across the region. An alternative view, put forward by Cunningham and Bustos (2011) and Cunningham (2009) is that high unemployment rates do not necessarily reflect lack of opportunity but that young people have to seek jobs that match their interest and skills and change from one job to another until they find an appropriate match through “trial and error”. According to these studies, with data from Argentina, Chile, Brazil and Mexico, the periods of job search or transition can be confounded with unemployment in official statistics and may mislead policy actions. Moreover, transitions to the informal market might be periods of low cost training and low cost gaining in experience that can be capitalized later in formal market jobs. Their evidence shows that once an appropriate match is found in the formal sector, job tenure increases considerably, not necessarily due to age but due to the identification of an alternative that is in line with the person´s interest and professional perspective. The conclusion in terms of policy action is that making better information available to the youth and promoting higher quality and access job markets might have greater impact than traditional interventions centered on subsidizing employment.

An additional element closely linked to the availability of education and labor market opportunities is the aforementioned demographic transition through which the Latin American and Caribbean region is progressing, and which is characterized by an accelerated growth of the

15 to 24 age group. Figure 11 shows the rate of growth of this segment of the population during the last 10 years according to the United Nations Population Statistics. The data shows an average rate of 11.5, which is about 25 percent higher than the growth of the total population, of 9 percent. In countries such as Guatemala, Bolivia, Honduras and El Salvador, the rates are even greater than 19 percent.

At least three hypotheses would be clearly derived from this discussion of general macro factors. The first is that the capacity of education systems to absorb individuals in the 15 to 18 age group is highly likely to influence the size of the idle youth group. The second is that restricted opportunities in the labor market for the youth increase the probability to become idle youth, while the third is that the growth rate of the overall 15 to 24 age group results in a more competitive environment that restricts opportunities for this age group.

The following sections explore some of these hypotheses empirically.

3. Idle youth and micro factors

The household survey database constructed for this paper allows exploring the relationship between some household characteristics and the size of the idle youth group, ages 15 to 18, in 18 Latin American and Caribbean countries. The empirical strategy we follow is to estimate Probit models where the probability of belonging to the idle youth group is a function household per capita income, household size, and of the education level, age, employment status and gender of the household head. Income, size, age and education are continuous variables, while gender and employment status are dummies (taking a value of 1 for female heads and being employed and active in the labor market, respectively). The variables included are those that can be homogenized across the household surveys available to us and are therefore the observable characteristics for which we can provide confident estimates. The marginal effects from each variable can be interpreted as the effect of the independent variable on the probability of belonging to the idle youth group, controlling for the other observable characteristics. Probit estimations are run separately for each household survey; that is, individual estimates are obtained for each country and year.

Figure 12 presents our results aggregated in regional averages for the 15 to 18 age group. The statistics in the figure refer to the average marginal effect of the independent variable on the probability of belonging to the idle youth group. We present regional averages by decade to identify general time trends. For computing regional averages, we only include coefficients that are statistically significant at the 95 percent level.

Our estimates suggest that the observable household characteristic that is most strongly associated with the probability of belonging to the 15 to 18 idle youth group is household per capita income. The influence of this variable declined slightly between the 1990s and 2000s decade but remains as the strongest estimated marginal effect. This result is consistent with the literature linking youth at risk with poverty and with the link between school dropout and socioeconomic conditions, which in turn reflects the incapacity of the poor to invest in human capital. The association therefore points to a potential vicious circle where poor households have limited human capital investment possibilities, which lead to lower income earning capacity in

the future and thus higher school dropout (and higher idle youth prevalence) in future generations.

The education level and employment status of the household head appear as the second strongest associations with the probability of belonging to the idle youth group. According to our results, a household head that has more years of education and who is employed (and presumably generating income) reduces the probability that their 15 to 18-year-old children are in the idle youth group. This can be interpreted as evidence that a more stable household environment reduces individual risks at younger ages. The age of the household head and household size are also significantly negatively associated with the probability of belonging to the idle youth group (in most cases), but their effect is much smaller. The effect of a female head of household is also much smaller, but interestingly its effect was negative (reducing the probability) in the 1990s and positive in the 2000s decade.

Table 4 presents the average value of the coefficients by decade and country for the 15 to18 age group. Zero values indicate that the coefficients were not statistically significant in the specified case while missing values are for countries where a household survey for the decade is not available or where a survey is available but we are not able to compute homogenized variables. In what follows, we point to the main deviations from each country´s individual results from the regional averages.

For instance, in the case of Argentina, one interesting feature is that the strongest marginal effect (similar in size to the income association) is the gender of the household head. It is also the case in the Dominican Republic and in Uruguay, Brazil and Peru in the 2000s, that when the head of the household is female, there is a significantly higher probability of belonging to the 15 to 18-year-old idle youth group, even after controlling for income and other socioeconomic characteristics. In the first three countries, the size of the marginal effect is lower in the 2000s decade but it is still considerable. Brazil stands out for the relatively higher influence of the employment status of the household head, which has a significant negative marginal effect on the probability of being in the idle youth group, similar in size (and even stronger in the 2000s) to the income effect. This is a feature shared by Costa Rica, Ecuador, El Salvador and Paraguay. Chile is the country where the strongest effect of the household head´s education level is observed, especially in the 2000s.

The case of Honduras is interesting for registering the greatest marginal effects for income in its association to idle youth status. The estimated coefficients for this variable are relatively high and not declining throughout the 1980s, 1990s and 2000s. The value for the education of the household head coefficients is also relatively high in the 2000s. Mexico shows a similar pattern in terms of the association between income and idle youth with high coefficients as well. Colombia, Guatemala, Nicaragua, Panama, Dominican Republic and Venezuela show patterns similar than those observed in Table 4, while Bolivia presents very similar coefficients across all independent variables.

Figure 13 presents similar Latin American and Caribbean average results for the 19 to 24 age group. These results should be taken with much more caution due to the potential endogeneity across variables, especially household per capita income. Family income is usually determined by the labor market decisions of working age individuals, defined as those in the 19 to 64 age range, which includes the 19 to 24 age group which are incorporated in the estimation of the

dependent variable in the Probit models. As compared to the 15 to18 age group, the differences are a stronger income and employment status association but again this may very well reflect the endogeneity issues for the older age group. Table 5 presents the averages by country.

The results in this section suggest that the probability of belonging to the 15 to 18-year-old idle youth group is significantly associated to the immediate environment of residence of individuals. The probability is significantly associated to household socioeconomic characteristics, including income, age, education and employment status of the household head and in some of the cases the gender of the household head. There are interesting variations across countries but all in all the general conclusion of the influence of household observable characteristics remains strong. Finally, household size does not seem to play an important role as judged by the magnitude of the marginal effects.

4. Idle youth and aggregate conditions

As explained in the previous section, the proportion of idle youth can be determined by individual factors, family and community factors, as well as macroeconomic conditions. This section identifies some community and macroeconomic conditions that are correlated with the proportion of idle youth. Given the important differences in trends and correlations between the proportion of idle men and women, separate regressions are run for these two groups.

The variable of interest is the proportion of men (*m*) or women (*w*) in age group *c*, country *j* and year *t* that are out of school and not working ($IY_{c,j,t}^{i=m,w}$). We contend that the shares of IY are a function of aggregate conditions which can reflect both overall economic (***X***) and community-social (***Z***) factors. In particular, we estimate the following specifications:

$$IY_{c,j,t}^{m} = \boldsymbol{X}_{j,t}\boldsymbol{\beta}_{c}^{m} + \boldsymbol{Z}_{j,t}\boldsymbol{\delta}_{c}^{m} + \varepsilon_{c,j.t}^{m} \qquad (1)$$

$$IY_{c,j,t}^{w} = \boldsymbol{X}_{j,t}\boldsymbol{\beta}_{c}^{w} + \boldsymbol{Z}_{j,t}\boldsymbol{\delta}_{c}^{w} + \varepsilon_{c,j.t}^{w} \qquad (2)$$

Notice that the independent variables (***X*** and ***Z***) are the same across age cohorts and sex, but the parameters and residuals are age- and cohort-specific ($\boldsymbol{\beta}$, $\boldsymbol{\delta}$ and ε). ***X*** includes the following variables for country *j* in year *t*: GDP per capita at constant PPP international dollars; annual GDP per capita growth rate in year *t*; trade openness measured as the sum of exports plus imports as a proportion of GDP; and the unemployment rate. All these four variables were taken from the World Bank's World Development Indicators (WDI).[19] In turn, ***Z*** is a vector including: urbanization rates, returns to schooling measured by wage premium for workers with different education levels (complete primary, complete secondary and complete university); average years of schooling among the population 15 years and older; and the 15- and 20-year lagged fertility rate. Urbanization rates were taken from the WDI; years of schooling are taken from Barro-Lee educational attainment dataset[20] and the lagged fertility rate comes from ECLAC's statistics.[21] Finally, the estimations of the returns to schooling used as independent variables are taken from

[19] The data can be downloaded from http://databank.worldbank.org/ddp/home.do
[20] Data available from http://www.barrolee.com/

[21] See http://www.eclac.org/estadisticas/

SEDLAC[22] and complemented with similar parameters estimated by the authors using household survey data. In particular, SEDLAC (2010) estimates a Mincer equation where the logarithm of the hourly wage in the main occupation for adults aged 25 to 55 is explained by educational dummies, age, age squared, an urban dummy and regional dummies. The calculations provide the marginal returns to completing each educational level for individuals participating in the labor market.

The final dataset is an unbalanced panel of 18 Latin American countries covering the period 1980 – 2010. Although 215 household surveys were processed, some observations are lost for lack of complete data, reducing the relevant sample to 185 observations. Tables 6 and 7 show the number of observations per country as well as the descriptive statistics of the variables involved in the estimations.

Separate estimations are undertaken for age groups 15 to 18 and 19 to 24, and for men and women (F-tests reject the null hypothesis of equality of coefficients across age and gender groups). The observations are not weighted by population so each pair of country-year observation is treated equally. The results for men and women are presented in Tables 8 and 9, respectively. [23]

Random and fixed effects models are estimated for both age groups and for men and women. The Hausman specification test indicates that in the case of men of both age groups and women between the ages of 15 and 18, random effects are preferred over a fixed effects model; for women between the ages of 19 and 24, the estimation with fixed effects is the preferred model.

The results in Tables 8 and 9 indicate that per capita GDP growth is significant and with the expected negative effect on the proportion of idle youth men for both age groups. Therefore, everything else constant, countries with higher growth rates have a lower proportion of young men out of school and not working. This is an expected result as higher economic growth brings more opportunities and fewer incentives to remain idle. Interestingly enough, economic growth does not seem to have a significant effect on the proportion of women that are idle. This suggests that other noneconomic factors can play a greater role in women's decisions at that age.

An interesting result is related to the effects of trade openness on the share of idle youth. The estimated coefficient is positive and significant. This is a robust result for men and women. In the interpretation of this result it is important to recall that Latin American countries as a whole embraced an ambitious wave of trade liberalization in the late 1980s and early 1990s, which is precisely the period of our study. The effects of the market reforms have been thoroughly analyzed in the literature. The main conclusion is that countries that introduced market-oriented reforms experienced a significant reallocation of factors of production. For example, several studies have established that productivity growth in Latin America is less associated with

[22] The returns to schooling can be downloaded from SEDLAC's webpage http://cedlas.econo.unlp.edu.ar/esp/index.php

[23] OLS regressions pooling together all observations were estimated, under the assumption that the residuals follow a normal distribution with zero mean and known variance. As expected, the Breusch-Pagan Lagrangian multiplier (LM) test for random effects rejects the null hypothesis of such an error structure and suggests the presence of a residual that varies along the cross-sectional dimension of the panel (countries).

productivity growth within firms and more associated with reallocation of production from less toward more productive plants. Eslava et al. (2004) conduct decompositions of TFP for Colombia that separate the simple average of TFP and the covariance between the share of production and productivity, which captures the extent of reallocation. This decomposition shows that while within plant TFP in Colombia was low and sometimes negative, the increased share of production of more productive plants accounts for most of aggregate productivity in Colombia. Pavcnik (2002) also finds that reallocation accounts for high productivity in the 1980s in Chile. Similarly, Bergoeing et al. (2010) find the same for the period 1980-2001, with within firm productivity being negative and entry and exit of firms accounting for productivity gains during this period. Using firm-level data for Mexico during the period 1993-2002, De Hoyos and Iacovone (2011) show that larger firms were able to benefit from NAFTA by displacing small exporting firms. Reallocation has been the main driver of the little productivity growth there has been in Latin America during the past decades.

But what our results indicate is that productivity enhancing reallocation is not the only effect of trade openness. Here we emphasize the costs of churning for the youth which seem to be high. The working conjecture is that the destruction and creation of jobs seems to have affected the young more adversely relative to other groups. But a full assessment of this hypothesis is beyond the scope of this paper. There is, however, evidence suggesting that after trade liberalization labor market conditions worsened for individuals with low skills and low experience. The jobs created required greater abilities than what the young could offer.

The other macroeconomic variable included in the regressions is the unemployment rate which comes out positive and significant. However, care should be exercised in interpreting this result. Reverse casualty is a major concern here for the 19 to 24 age group as a higher proportion of idle youth results also in a higher unemployment rate (not necessarily for the 15 to 18 age group which is not represented in youth unemployment rates).

On the social variables, in the case of men and for all age groups the coefficient on years of schooling does not come out significant. However, among women there is evidence of a negative relationship between the proportion of idle youth and years of schooling. This result can be explained by lower primary school enrollment rates among girls than boys, a gap which only in recent years has seen a reduction. For boys close to universal primary enrollment has been the case for several years, however, among girls efforts are still to be made to reach this coverage. Also, more years of schooling reduce the probability of youth pregnancy, which then results in a lower proportion of women being IY. [24]

The 15-year lagged fertility rate shows the expected positive effect over the proportion of idle men ages 15 to 18. Countries with a larger adolescent population have greater difficulties in providing access to education. This effect is not present for idle youth ages 19 to 24 using the 20-year lagged fertility rate. In the case of women, lagged fertility rates show a strong and positive effect on the proportion of idle youth, both for 15 to 18 and 19 to 24 age groups. The positive and significant parameters on fertility rates confirm that some of the changes in the proportion of

[24] It should be noted that we use a measure of the stock of the years of education for the working age population over 18 years of age as indicator of the access to education services. This avoids a potential endogeneity problem, since the dependent variable is calculated for a different age group (under 18).

idle youth are explained by the demographic transition that most Latin American countries are experiencing.

Finally, returns to complete secondary education (relative to primary) would tend to create an incentive for adolescents to stay in school. This is the case of men (with an 8 percent significance) but not for women. In principle, this can be explained by the fact that for the younger age bracket (15-18) becoming idle begins with the decision to drop out from school, which is influenced by variables pertaining educational quality and its economic returns. For the older age bracket (19-24) labor market conditions play a greater role in determining the idle youth status. If these idle youth do not have completed secondary education the returns to university education lose relevance. In the case of women, returns to schooling do not seem to play a role, again suggesting that the main drivers of the decision to become idle are gender-specific.

5. Conclusions and policy recommendations

There are nearly 10 million Latin Americans between the ages of 15 and 18 that are neither studying nor working. This large number, which represents about 19 percent of the population in that age bracket, reflects one of the region's more daunting challenges. With so much praise on Latin America's recent economic and social performance, it remains intriguing why these groups of the population are still facing lack of adequate opportunities. Not surprisingly, social unrest, drug consumption, crime and violence are typically associated with individuals belonging to this demographic group. If Latin America wants to reap the dividend of the so-called "demographic window of opportunity" it needs to provide its youth with adequate educational and employment opportunities. Otherwise, they will not be able to increase the levels of productivity in the following decades. Perhaps more worrisome, they will fail to generate adequate incomes to support the higher dependency rates which are expected to rise again in two decades.

To formulate adequate policy responses to this problem, it is essential to have a comprehensive understanding of its main causes. This is the main goal of this paper, where we explore a combination of microeconomic and macroeconomic determinants.

Not surprisingly, household per capita income comes out as a crucial determinant. This result is very relevant because it captures the nature of the vicious circle linking poverty today with diminished future earning capacity. With lower future incomes one can expect higher school dropout rates and higher idle youth prevalence in future generations. Combined with this factor, education level and employment status of the household head are also very relevant determinants of the idle youth condition.

In terms of macroeconomic variables, aggregate per capita GDP growth reduces the proportion of idle young men but not of women, which seem to be impacted by a different set of variables. An interesting result is that trade openness, which can be considered a proxy for the importance of competitive markets, has a positive impact on the proportion of the young men and women out of school and not working. We interpret this as a negative side-effect of an otherwise positive force that has led to higher productivity due to the faster destruction and creation of jobs.

However, young individuals seem to have been adversely impacted by the greater reallocation of resources and the incidence of churning in the labor market. The new jobs created have required greater abilities than what the young can offer.

In the case of women, there is evidence of a negative relationship between the proportion of idle youth and years of schooling. This result suggests that fewer years of schooling are associated with greater fertility rates for this group. This, in turn, increases the probability of young women becoming idle youth. There is again a vicious circle because children of households with low income and education are themselves also likely to experience the problem being part of the idle youth group. Finally, in the case of men, higher returns to complete secondary education (relative to primary) tend to create an incentive for adolescents to stay in school.

The general message is that social interventions that increase household per capita income, raise the returns to schooling, and provide a direct incentive for the individual to stay in school would reduce the incidence of idle youth. Thus, a combination of efforts is required, dealing with the quality and pertinence of the education provided, and the generation of income for the household but more specifically for the youth that are at risk of becoming idle. Conditional cash transfer programs aimed at reducing dropout rates in ages 15 to 18 seem particularly relevant. However, such programs can be particularly effective if they benefit individuals directly by offering each student a lump-sum payment if secondary education is completed. A successful example of such intervention is discussed in and Barrera et al. (2011). In addition, cash payments for vocational training of the type analyzed in Attanasio et al. (2011) can also prove to be very helpful in increasing the incentives for the young not to remain idle.

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Table 1

Idle Youth in Latin America 1989-2009
15-18 age group

Country	% in 15-18 Age group					Change	Absolute number (thousand)		Change
	1989	1995	2000	2005	2009	1989-2009	1989	2009	1989-2009
Argentina	16.7	17.3	15.6	16.5	15.8	-0.9	457	566	109
Bolivia	10.2	11.5	12.7	8.1	7.0	-3.2	72	74	2
Brasil	19.0	15.3	12.5	12.3	11.7	-7.3	2,805	1,958	- 847
Chile	18.6	14.8	15.6	13.7	20.5	1.9	230	304	74
Colombia	15.8	17.4	23.1	20.0	20.0	4.2	546	865	319
Costa Rica	25.9	23.2	23.8	19.8	18.1	-7.9	74	79	4
Ecuador	23.4	23.4	18.8	18.9	17.3	-6.1	255	231	- 24
El Salvador	17.4	24.4	23.4	21.0	20.4	3.0	100	140	39
Guatemala	24.4	24.4	35.0	28.5	25.3	0.9	230	392	162
Honduras	33.3	35.6	37.4	39.1	28.0	-5.3	172	237	65
México	23.2	23.0	18.6	18.5	22.0	-1.2	2,267	2,100	- 167
Nicaragua	32.7	32.2	28.4	25.7	24.4	-8.3	146	160	14
Panama	25.2	22.6	21.6	18.5	20.7	-4.6	66	63	- 2
Paraguay	22.6	44.8	19.0	16.1	11.9	-10.7	94	79	- 15
Perú	30.8	26.8	21.3	31.8	26.2	-4.6	709	754	45
Dominican R	18.8	18.8	18.2	18.5	13.0	-5.8	145	126	- 19
Uruguay	27.2	32.8	28.1	23.4	18.0	-9.2	69	48	- 22
Venezuela	51.4	24.6	24.9	19.7	16.4	-35.1	1,004	446	- 558
LA Region	24.3	24.1	22.1	20.7	18.5	-5.7	10,308	9,427	- 881

Author´s calculations using micro data from 214 household surveys. See data appendix for details.

Table 2

Distribution of Idle Youth by Income Quintile

Country	Quintile 1 (%) of total	Quintile 2 (%) of total	Quintile 3 (%) of total	Quintile 4 (%) of total	Quintile 5 (%) of total
Argentina (2006)	38.7%	24.2%	17.7%	12.9%	6.5%
Bolivia (2007)	18.8%	28.1%	25.0%	15.6%	12.5%
Brasil (2007)	29.8%	26.3%	21.1%	14.0%	8.8%
Chile (2006)	30.4%	21.4%	19.6%	16.1%	12.5%
Colombia (2005)	27.3%	22.2%	21.2%	18.2%	11.1%
Costa Rica (2007)	30.6%	25.0%	25.0%	13.9%	5.6%
Ecuador (2007)	29.3%	25.9%	22.4%	17.2%	5.2%
El Salvador (2004)	34.7%	23.5%	21.4%	13.3%	7.1%
Guatemala (2006)	32.3%	25.3%	19.2%	13.1%	10.1%
Honduras (2007)	29.7%	25.4%	20.3%	15.3%	9.3%
México (2006)	31.8%	23.9%	20.5%	13.6%	10.2%
Nicaragua (2005)	25.0%	26.0%	19.2%	18.3%	11.5%
Panamá (2007)	36.7%	25.0%	20.0%	11.7%	6.7%
Paraguay (2007)	25.0%	29.4%	19.1%	17.6%	8.8%
Perú (2008)	13.7%	21.6%	20.6%	20.6%	23.5%
República Dominicana (2007)	23.1%	23.1%	18.5%	21.5%	13.8%
Uruguay (2007)	41.6%	26.0%	19.5%	9.1%	3.9%
Average 18 Countries	29%	25%	21%	15%	10%

Table 3

Statistics on Individual Factors

País	% Pregnancy At 15 y 18 ayears per100,000 hab***	% youth that consume Marihuana*	% total population That consume Marihuana*	% youth 17-18 That consume Alcoholic beverages*	Homicide Rates Among youth*	Homicide rates Total population**
Argentina	50	10.3	6.9	67.9		
Bolvia		5.4	3.2	34.0		
Brasil	49			63.1	81.2	16.7
Chile	48	18.8	7.0	65.5	6.7	3
Colombia	50				212.5	61.6
República Dominicana	117				35.3	10.2
Costa Rica	68					
Cuba	67					
Ecuador	72					
El Salvador	107			26.0	133.1	55.6
Guatemala	108					
Honduras	116					
Jamaica	74				188	55.7
Mexico	53	12.2				
Nicaragua	120					
Panama	90					
Paraguay	96			57.5		
Peru	61					
Uruguay	48			74.5		

* Data from CEPAL at http://websie.eclac.cl/infest/ajax/cepalstat.asp?carpeta=estadisticas para datos alrededor de 2006

** WHO data.

***OWHO circa, 2000.

Table 4

Micro factors associated with the probability of belonging to the IY group 15-18 (marginal effects from Probit estimation including all variables)

Country	Household Income			Education of HH Head			Age of HH Head			Household Head Employed			Female Head of Household			Household Size		
	1980s	1990s	2000s	1980s	1990s	2000s	1980s	1990s	2000s	1980s	1990s	2000s	1980s	1990s	2000s	1980s	1990s	2000s
Argentina	-0.079	-0.042	-0.055	0.005	-0.019	-0.006	-0.003	-0.003	-0.001	-0.065	-0.053	0.011	-0.031	0.064	0.040	0.002	0.005	0.006
Bolivia	-0.016	0.000	-0.024	-0.009	-0.006	-0.009	-0.004	-0.001	-0.004	-0.072	-0.003	-0.016	-0.035	-0.023	-0.005	-0.011	-0.002	0.006
Brazil	-0.062	-0.045	-0.008	-0.006	-0.008	-0.003	-0.003	-0.003	-0.002	-0.039	-0.044	-0.026	-0.031	0.003	0.019	-0.013	-0.007	-0.001
Chile	-0.042	-0.043	-0.043	-0.013	-0.011	-0.089	-0.003	-0.002	0.011	-0.053	-0.011	0.000	0.000	0.016	0.000	0.010	0.006	0.009
Colombia		-0.070	-0.053		-0.001	-0.002		-0.002	-0.003		-0.034	-0.029		-0.019	0.000		0.004	0.001
Costa Rica	-0.087	-0.099	-0.017	-0.015	-0.015	-0.002	-0.005	-0.004	-0.003	0.015	-0.015	-0.053	-0.072	-0.030	0.008	-0.008	-0.007	0.019
Ecuador		-0.031	-0.048		-0.007	-0.007		-0.003	-0.002		-0.050	-0.083		-0.021	0.015		0.006	-0.002
El Salvador		-0.081	-0.065		-0.013	-0.012		-0.003	-0.003		-0.055	-0.050		-0.051	-0.024		-0.010	-0.006
Guatemala		-0.045	-0.048		-0.011	-0.013		-0.001	-0.003		-0.023	-0.028		-0.069	-0.048		-0.003	-0.008
Honduras	-0.080	-0.073	-0.104	-0.012	-0.017	-0.061	-0.004	-0.003	0.001	-0.013		0.000	-0.060	-0.055	0.010	-0.018	-0.002	0.005
Mexico	-0.085	-0.095	-0.078	-0.018	-0.012	-0.010	-0.003	-0.002	-0.002	0.000	0.000	0.000	-0.022	-0.006	0.002	-0.010	-0.005	-0.001
Nicaragua		-0.013	-0.049		-0.016	-0.015		-0.004	-0.002		-0.014	0.000		-0.006	0.023		-0.006	0.000
Panama		-0.047	-0.044		-0.014	-0.015		-0.003	-0.002		-0.001	-0.002		-0.010	-0.002		0.008	0.006
Paraguay	-0.076	-0.134	-0.039	-0.022	-0.003	-0.010	-0.002	-0.003	-0.002	-0.009	-0.013	-0.047	0.008	-0.007	0.001	0.005	-0.003	-0.004
Peru		-0.034	-0.023		-0.013	0.003		-0.003	0.001		0.000	-0.003		-0.032	0.025		-0.007	0.001
Dominican Republic		-0.044	-0.033		-0.009	-0.006		-0.003	-0.004		-0.010	-0.024		0.031	-0.017		-0.005	-0.004
Uruguay		-0.124	-0.019		-0.004	-0.003		-0.001	-0.001		0.000	0.000		0.049	0.014		-0.008	0.002
Venezuela	-0.042	-0.080	-0.037	-0.003	-0.004	-0.008	-0.002	0.000	-0.002	-0.001	0.006	-0.026	-0.009	-0.022	0.006	0.001	0.001	0.006
LAC Average		**-0.061**	**-0.044**		**-0.010**	**-0.015**		**-0.003**	**-0.001**		**-0.019**	**-0.021**		**-0.010**	**0.004**		**-0.002**	**0.002**

Author´s calculations using micro data from 214 household surveys. See data appendix for details.

Table 5

Micro factors associated with the probability of belonging to the IY group 19-24 (marginal effects from Probit estimation including all variables)

Country	Household Income			Education of HH Head			Age of HH Head			Household Head Employed			Female Head of Household			Household Size		
	1980s	1990s	2000s	1980s	1990s	2000s	1980s	1990s	2000s	1980s	1990s	2000s	1980s	1990s	2000s	1980s	1990s	2000s
Argentina	-0.086	-0.162	-0.129	0.007	-0.011	-0.001	-0.004	-0.001	0.000	0.029	0.067	0.000	-0.085	-0.037	-0.036	0.010	-0.007	-0.002
Bolivia	-0.030	-0.040	-0.008	-0.012	-0.004	-0.003	-0.006	-0.003	-0.005	0.006	-0.007	-0.048	-0.111	-0.041	-0.024	0.011	0.004	0.007
Brazil	-0.124	-0.120	-0.014	0.008	0.005	-0.003	-0.003	-0.002	-0.003	-0.038	-0.049	-0.106	-0.084	-0.051	-0.021	-0.016	-0.011	0.005
Chile	-0.173	-0.180	-0.173	-0.001	0.000	0.108	-0.001	-0.001	-0.028	0.010	-0.002	0.000	-0.057	-0.048	0.000	-0.003	-0.004	0.006
Colombia		-0.164	-0.131		0.000	-0.001		-0.001	-0.002		-0.010	-0.058		-0.064	-0.047		-0.006	0.000
Costa Rica	-0.161	-0.189	-0.046	0.002	0.003	0.000	-0.004	-0.004	-0.003	0.033	0.009	-0.064	-0.093	-0.073	-0.038	-0.015	-0.015	0.009
Ecuador		-0.050	-0.095		-0.003	0.001		-0.002	-0.001		-0.035	-0.069		-0.006	-0.054		-0.001	-0.005
El Salvador		-0.148	-0.130		-0.001	-0.006		-0.002	-0.002		-0.049	-0.095		-0.051	-0.030		-0.007	-0.011
Guatemala		-0.065	-0.106		0.003	0.000		-0.002	-0.003		-0.104	-0.070		-0.069	-0.044		-0.015	-0.006
Honduras	-0.104	-0.105	-0.066	0.004	-0.010	-0.013	-0.001	-0.002	0.013	0.112	0.033	-0.034	-0.088	-0.056	-0.020	-0.009	-0.004	0.008
Mexico	-0.143	-0.130	-0.126	0.000	-0.001	0.000	-0.004	-0.002	-0.002	-0.022	-0.012	-0.030	-0.097	-0.065	-0.039	-0.010	-0.009	-0.005
Nicaragua		-0.062	-0.097		-0.001	0.003		-0.001	-0.001		0.013	-0.035		0.019	-0.058		0.000	-0.001
Panama		-0.140	-0.143		-0.001	0.001		-0.002	-0.002		-0.034	-0.063		-0.041	-0.049		0.007	0.000
Paraguay	-0.199	-0.227	-0.118	-0.013	0.003	0.001	-0.003	0.000	-0.001	0.018	-0.026	-0.077	0.053	-0.087	-0.012	0.000	-0.011	-0.011
Peru		-0.102	-0.011		-0.006	0.002		-0.002	0.000		0.010	-0.006		-0.041	0.005		-0.006	0.000
Dominican Republic		-0.161	-0.177		0.004	0.007		-0.003	-0.001		0.001	0.000		-0.031	-0.041		-0.021	-0.002
Uruguay		-0.183	-0.021		0.010	-0.001		0.001	-0.002		-0.030	-0.030		-0.031	-0.009		-0.010	0.003
Venezuela	-0.176	-0.195	-0.108	0.002	-0.001	-0.004	-0.001	-0.001	-0.003	0.088	0.078	-0.035	-0.054	-0.026	-0.029	-0.005	-0.001	0.005
LAC Average		-0.135	-0.094		0.000	0.005		-0.002	-0.003		-0.008	-0.045		-0.044	-0.030		-0.007	0.000

Author´s calculations using micro data from 214 household surveys. See data appendix for details.

Table 6

Number of observations per country used in regressions

Country	Frequency	Percent
Argentina	11	5.95
Bolivia	8	4.32
Brazil	15	8.11
Chile	9	4.86
Colombia	8	4.32
Costa Rica	14	7.57
Ecuador	6	3.24
El Salvador	13	7.03
Guatemala	5	2.7
Honduras	11	5.95
Mexico	10	5.41
Nicaragua	3	1.62
Panama	11	5.95
Paraguay	8	4.32
Peru	14	7.57
Dominican Republic	8	4.32
Uruguay	10	5.41
Venezuela	21	11.35
Total	185	100

Table 7
Descriptive statistics of macro variables used in the model

Variable	mean	sd	min	max	p25	p50	p75
IY, 15-18, men	8.75	4.01	2.36	22.23	6.12	7.56	10.23
IY, 19-24, men	8.70	3.25	2.92	21.06	6.52	8.61	10.63
IY, 15-18, women	14.61	4.90	6.89	29.20	11.10	14.11	17.00
IY, 19-24, women	23.12	4.24	14.00	33.30	19.60	23.00	25.80
Per capita GDP*	7.22	2.79	1.97	13.43	5.18	7.23	9.56
Per capital GDP, growth	1.97	3.81	-10.73	16.24	0.01	2.16	4.12
Trade (X+M)/GDP	63.13	34.42	11.55	198.77	40.03	55.87	74.72
Unemployment rate	8.60	4.16	1.40	20.06	5.59	7.70	11.01
Urbanization rate	69.59	14.67	41.10	92.98	58.68	70.46	83.00
Returns to secondary**	2.15	1.22	-7.64	10.48	1.78	1.99	2.33
Returns to university**	1.65	0.46	0.55	3.61	1.41	1.62	1.79
Years of schooling, (15 +)	7.10	1.43	2.95	10.09	6.19	7.09	8.22
Lagged fertility rate	4.37	1.07	2.51	6.87	3.53	4.25	5.20

* Thousands of US dollars, PPP. ** The returns to secondary and university are measures relative to the returns in primary and secondary schooling, respectively.

Table 8

Determinants of the % of idle youth, men

Independent variables	% of Idle Youth, 15 - 18		% of Idle Youth, 19 - 24	
	Random Effects	Fixed Effects	Random Effects	Fixed Effects
Per capita GDP (Y_{pc})	0.27	0.39	-0.18	0.09
	(0.24)	(0.30)	(0.19)	(0.25)
Y_{pc}, growth	**-0.13**	**-0.13**	**-0.10**	**-0.10**
	(0.06)	(0.06)	(0.05)	(0.05)
Trade (X+M)/GDP	**0.04**	0.03	**0.04**	**0.03**
	(0.02)	(0.02)	(0.01)	(0.02)
Unemployment rate	0.08	0.07	**0.30**	**0.32**
	(0.09)	(0.09)	(0.06)	(0.07)
Urbanization rate	0.07	-0.11	**0.14**	**0.23**
	(0.07)	(0.15)	(0.06)	(0.12)
Returns to secondary	-0.34	**-0.41**		
	(0.20)	(0.20)		
Returns to university			-0.60	-0.83
			(0.48)	(0.52)
Years of schooling	-0.62	-0.65	0.00	-0.58
	(0.43)	(0.67)	(0.32)	(0.53)
Lagged fertility rate	**1.13**	0.40	0.73	0.89
	(0.56)	(0.71)	(0.43)	(0.57)
Year controls	NO	NO	NO	NO
Constant	-1.13	15.29	-6.62	-11.17
	(7.38)	(11.95)	(5.75)	(9.66)
R^2	0.13	0.02	0.38	0.19
N	185	185	185	185

Notes: (1) standard errors in parenthesis; (2) parameters in bold significant at the 95% confidence level; (3) GDP per capita is measured in thousands of US dollars, PPP; (4) years of schooling correspond to the population 15 years and older; (5) highlighted column corresponds to the preferred model according to the LM and Hausman tests; (6) The R^2 reported is the within plus between variation explained by the models. .

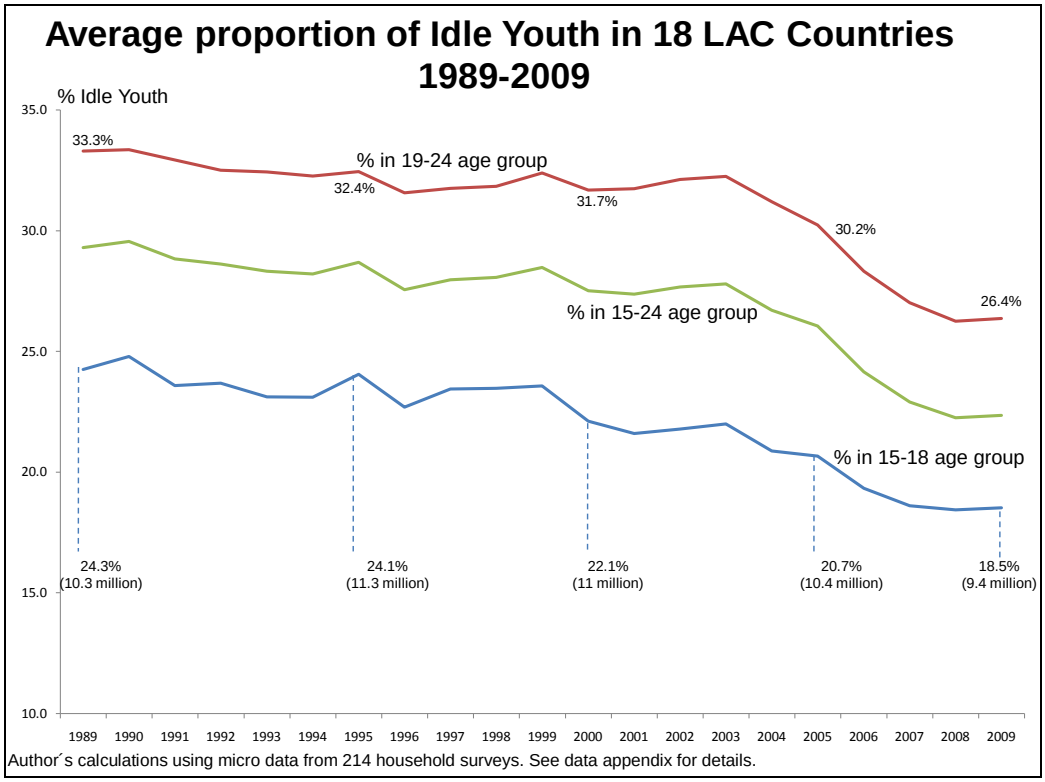
Table 9

Determinants of the % of idle youth, women

	Independent variables	% of Idle Youth, 15 - 18		% of Idle Youth, 19 - 24	
		Random Effects	Fixed Effects	Random Effects	Fixed Effects
Macro variables	Per capita GDP (Y_{pc})	0.36	0.05	-0.23	**-0.71**
		(0.22)	(0.26)	(0.20)	(0.23)
	Y_{pc}, growth	-0.05	-0.05	-0.03	-0.03
		(0.05)	(0.05)	(0.04)	(0.04)
	Trade (X+M)/GDP	**0.03**	0.02	0.01	0.00
		(0.01)	(0.02)	(0.01)	(0.01)
	Unemployment rate	-0.06	-0.10	**0.17**	0.11
		(0.08)	(0.08)	(0.06)	(0.06)
Community-Social	Urbanization rate	-0.06	**-0.36**	0.01	0.02
		(0.07)	(0.13)	(0.06)	(0.11)
	Returns to secondary	-0.22	-0.25		
		(0.18)	(0.17)		
	Returns to university			-0.22	0.15
				(0.46)	(0.46)
	Years of schooling	**-0.81**	0.76	**-0.78**	-0.10
		(0.40)	(0.59)	(0.35)	(0.47)
	Lagged fertility rate	**2.06**	**1.70**	**1.89**	**2.19**
		(0.51)	(0.63)	(0.43)	(0.50)
	Year controls	NO	NO	NO	NO
	Constant	12.03	26.62	**19.16**	**16.62**
		(6.78)	(10.51)	(6.10)	(8.58)
	R^2	0.47	0.18	0.40	0.23
	N	185	185	185	185

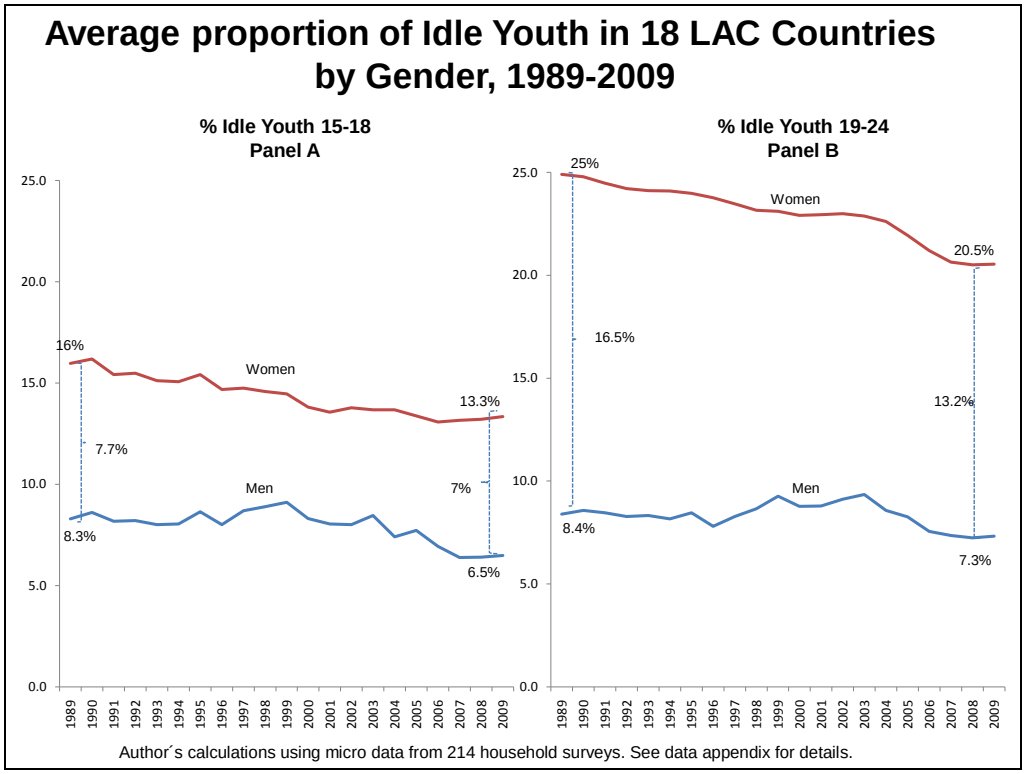
Notes: (1) standard errors in parenthesis; (2) parameters in bold significant at the 95% confidence level; (3) GDP per capita is measured in thousands of US dollars, PPP; (4) years of schooling correspond to the population 15 years and older; (5) highlighted column corresponds to the preferred model according to the LM and Hausman tests; (6) The R^2 reported is the within plus between variation explained by the models.

Figure 1



Author´s calculations using micro data from 214 household surveys. See data appendix for details.

Figure 2



Author´s calculations using micro data from 214 household surveys. See data appendix for details.

Figure 3

Idle youth 15-18 years of age by education level

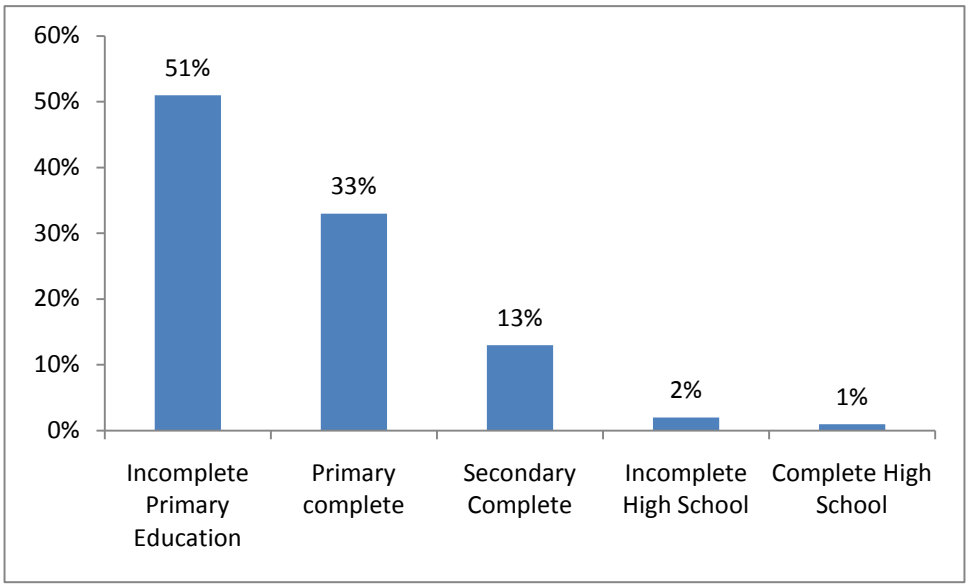


Figure 4

% Of Idle youth 15-18 years of age with social security coverage

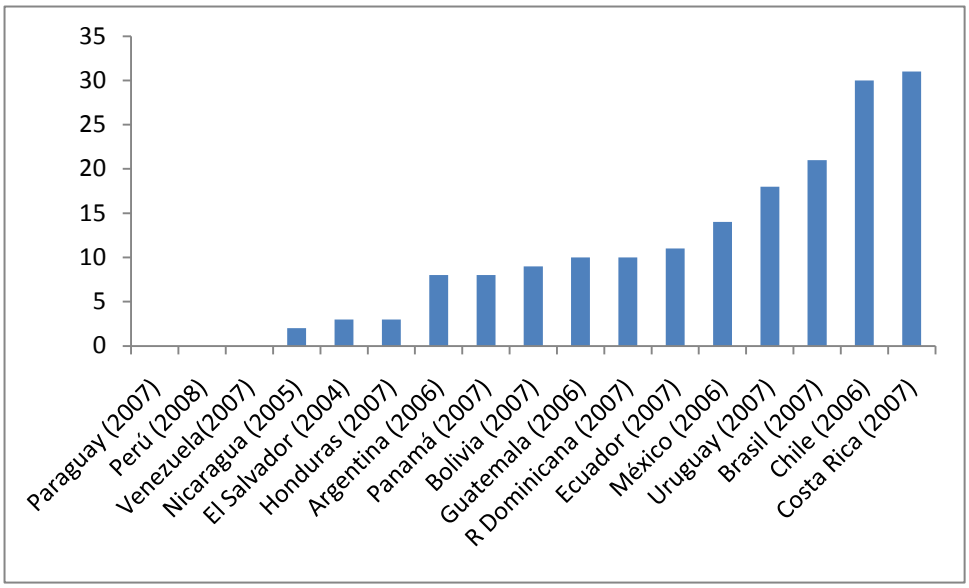


Figure 5

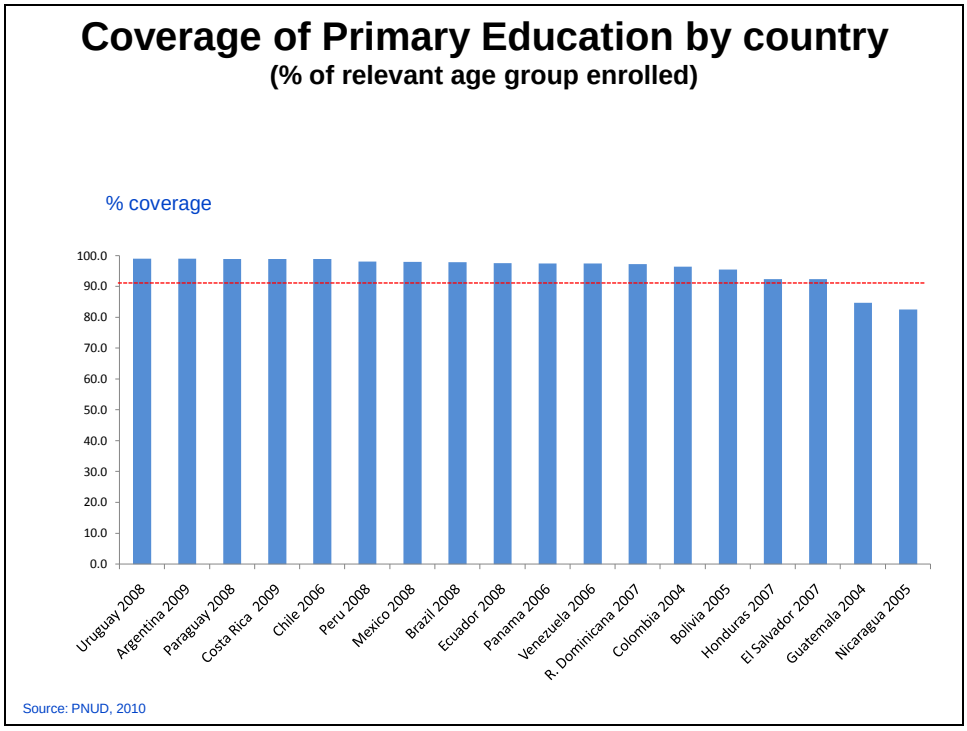


Figure 6

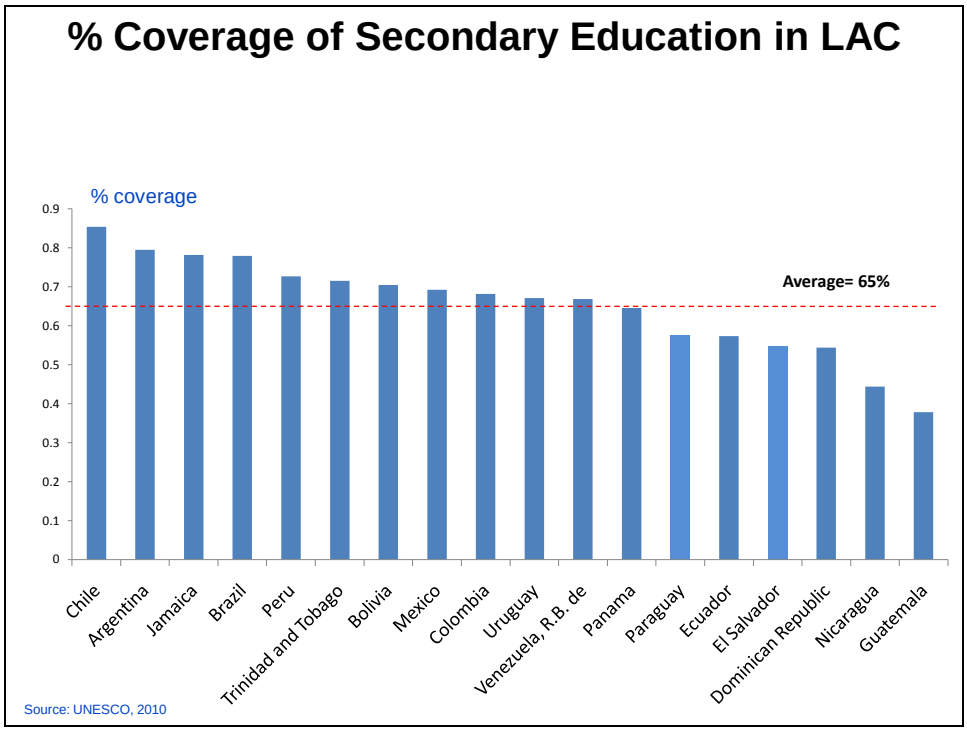


Figure 7

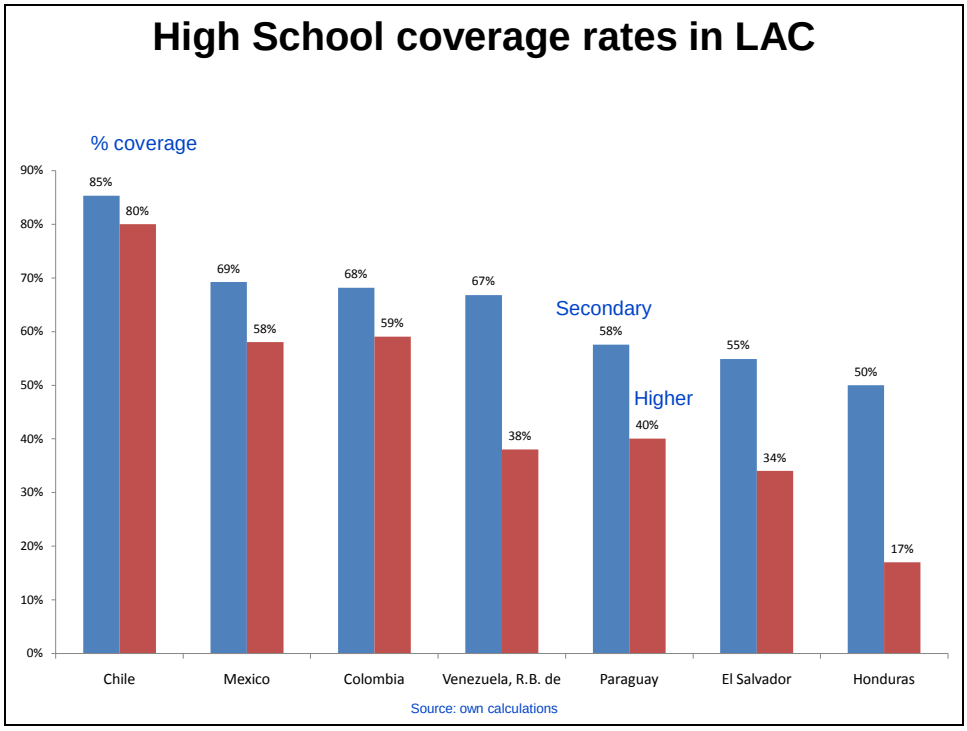
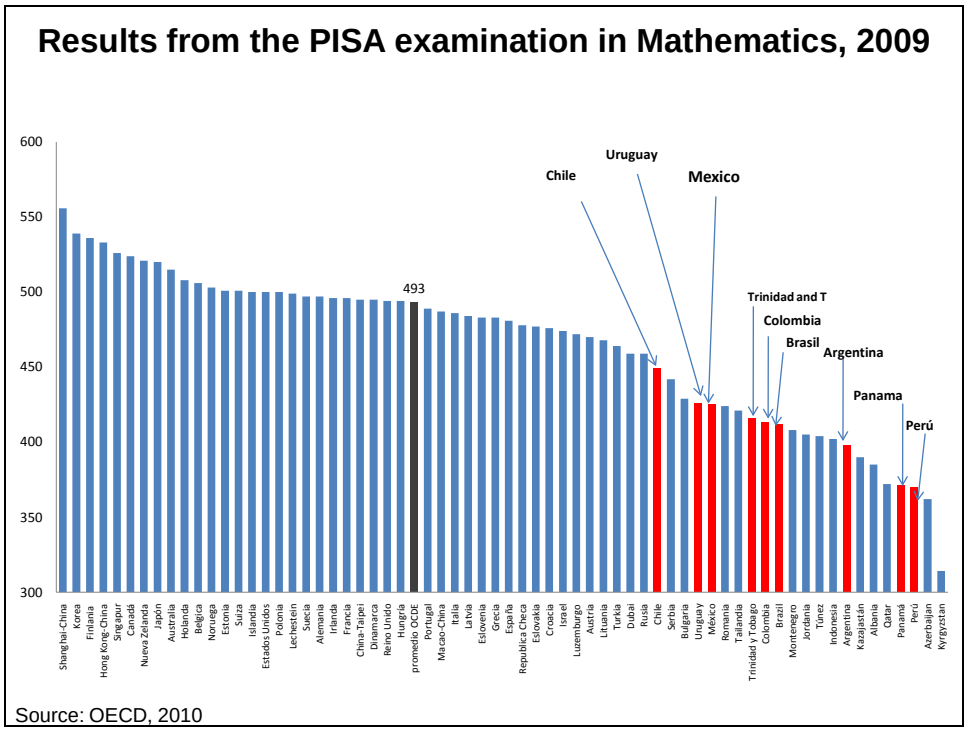


Figure 8



Source: OECD, 2010

Figure 9

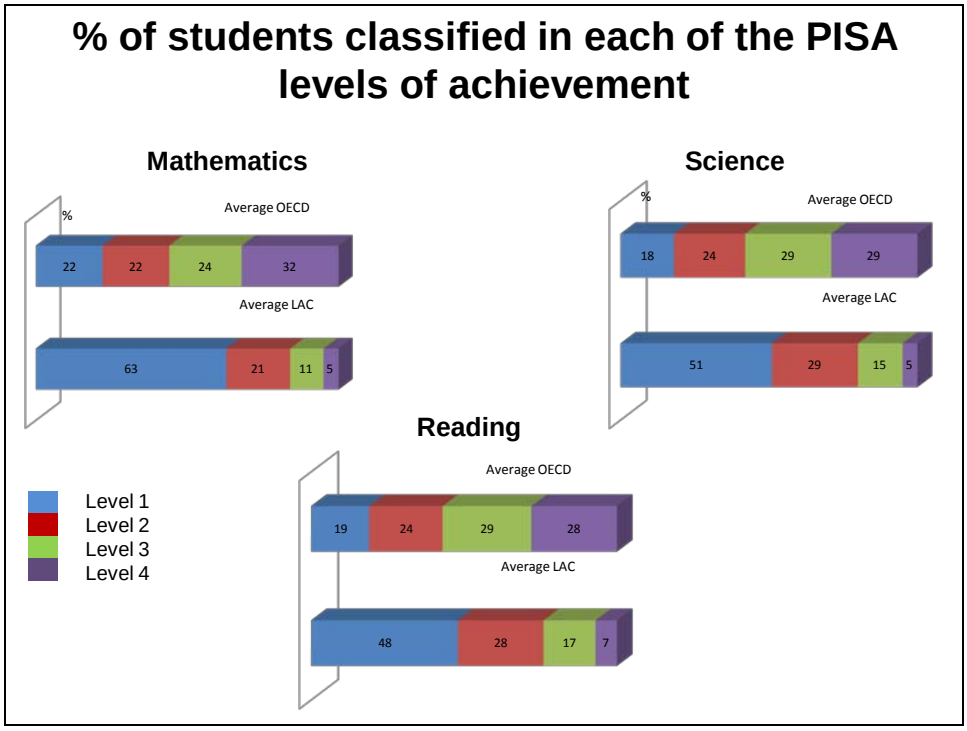


Figure 10

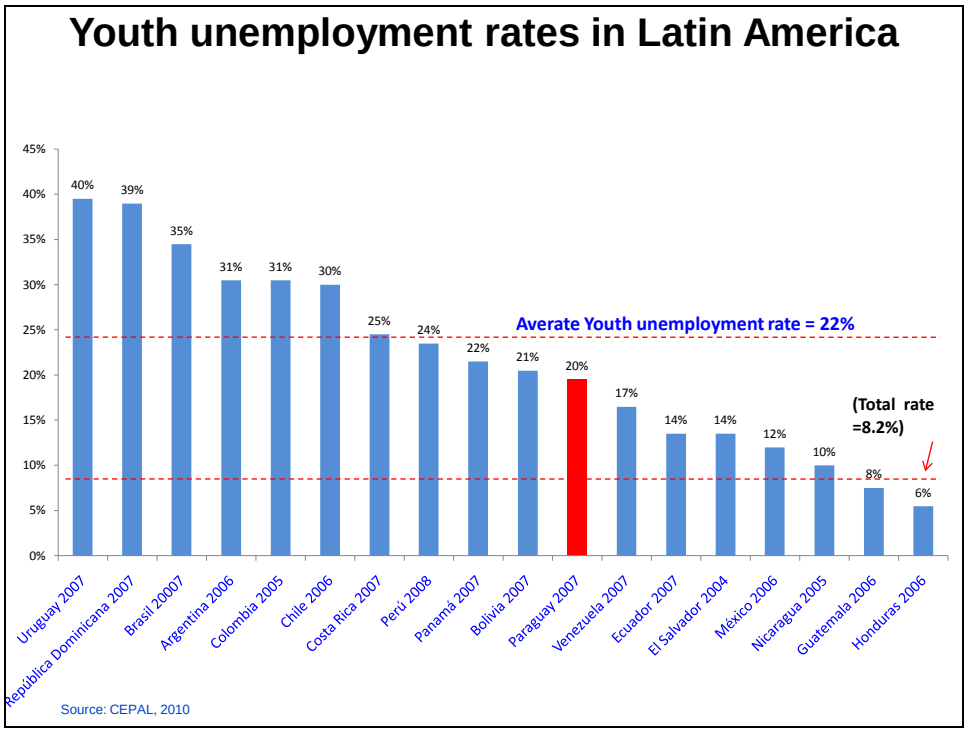


Figure 11

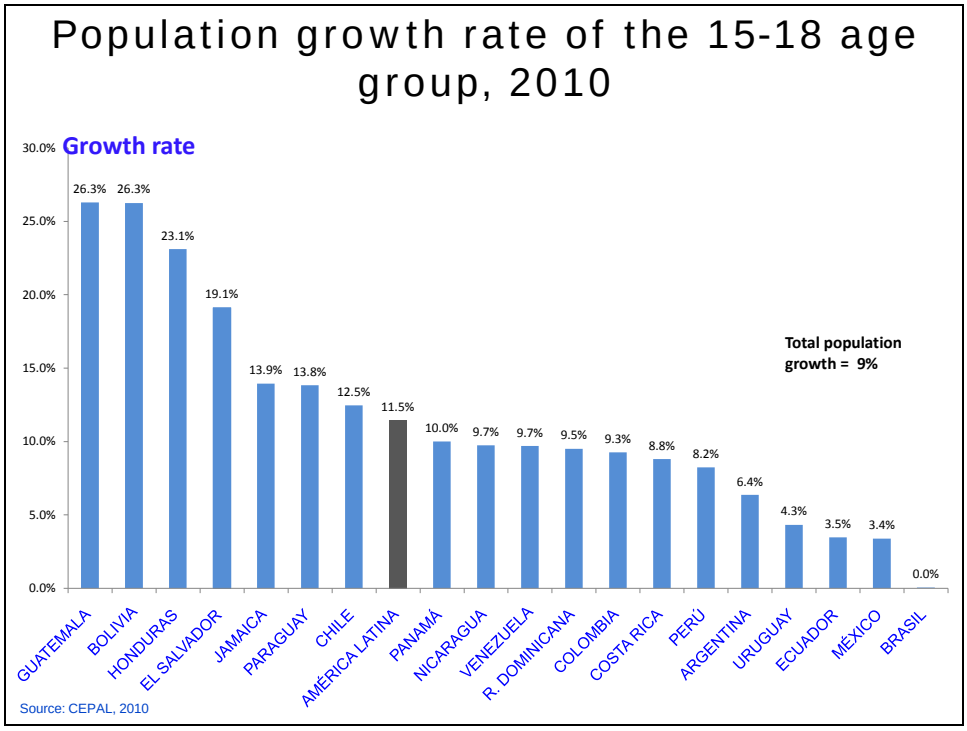


Figure 12

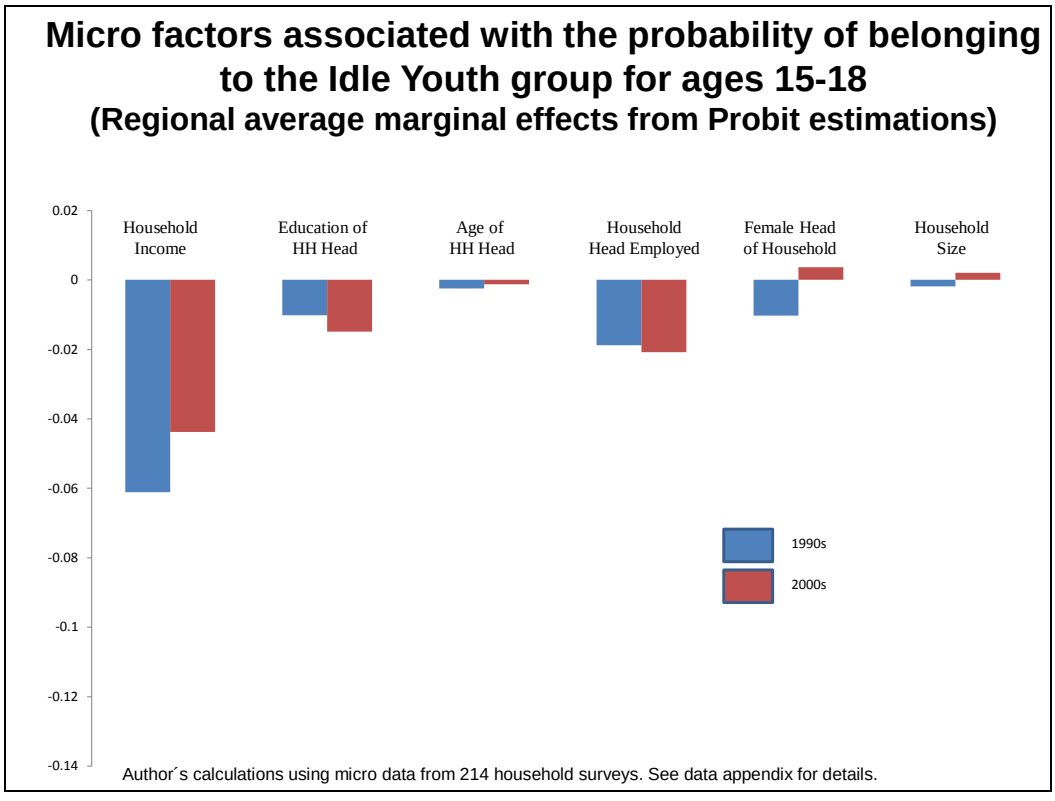
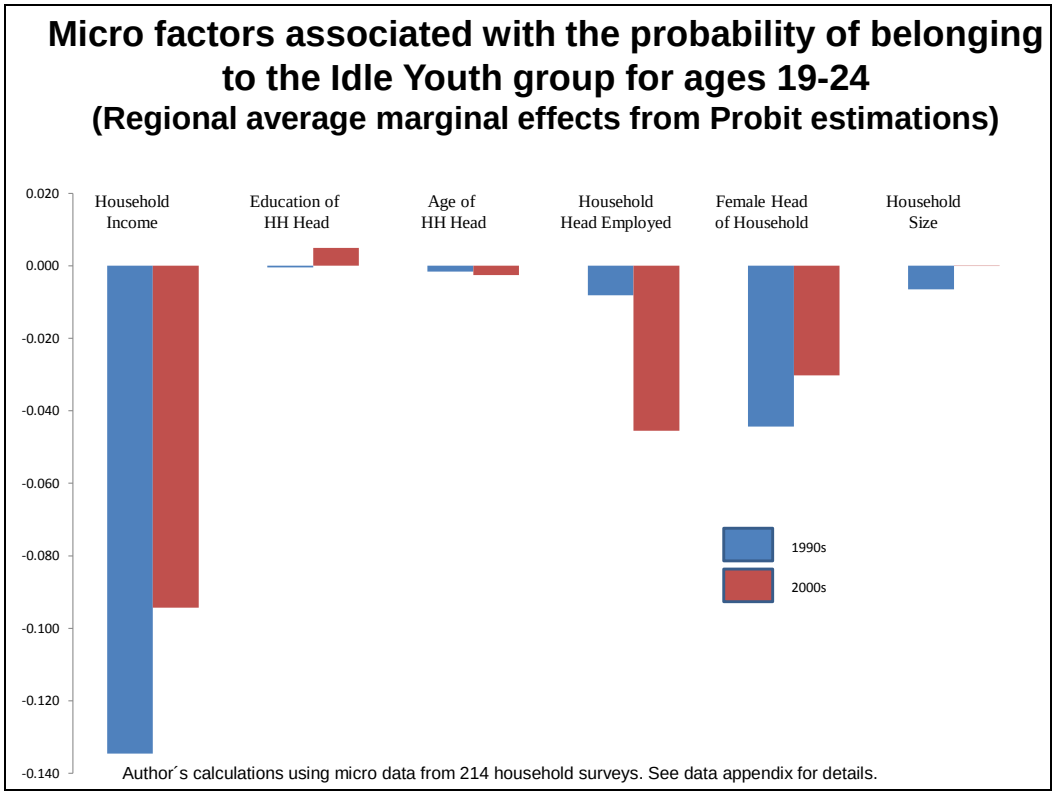


Figure 13


Micro factors associated with the probability of belonging to the Idle Youth group for ages 19-24
(Regional average marginal effects from Probit estimations)
0.020
0.000
-0.020
-0.040
-0.060
-0.080
-0.100
-0.120
-0.140
Household Income
Education of HH Head
Age of HH Head
Household Head Employed
Female Head of Household
Household Size
1990s
2000s
Author´s calculations using micro data from 214 household surveys. See data appendix for details.

Appendix

Table A1

Household Survey Data Base

Country	# Surveys	Years	Survey
Argentina	12	1980, 1986, 1998, 2000, 2001, 2003, 2004, 2005 2006, 2007, 2008, 2009, 2010	Encuesta Permanente de Hogares
Bolivia	7	1986, 1995	Encuesta Integrada de Hogares
		1996, 1997	Encuesta Nacional de Empleo
		1999	Encuesta Continua de Hogares (condiciones de vida)
		2001, 2002, 2007	Encuesta de Hogares
Brazil	15	1981, 1983, 1986, 1988, 1992, 1993, 1995 1996, 1997, 1998, 1999, 2001, 2002, 2003, 2004, 2007	Pesquisa Nacional por Amostra de Domicilios
Chile	9	1990, 1992, 1994, 1996, 1998 2000, 2003, 2006, 2009	Encuesta de Caracterización Socioeconómica Nacional
Colombia	10	1980, 1986, 1989, 1992, 1996, 1997, 1998, 1999	Encuesta Nacional de Hogares - Fuerza de Trabajo
		2000	Encuesta Continua de Hogares
		2003, 2005	Encuesta de Calidad de Vida
Costa Rica	15	1983, 1985	Encuesta Nacional de Hogares -Empleo y Desempleo
		1987, 1989, 1991, 1993, 1995, 1997, 1998	Encuesta de Hogares de Propósitos Múltiples
		2000, 2001, 2002, 2003, 2004, 2009	Encuesta de Hogares de Propósitos Múltiples
R. Dominicana	8	1995, 1996, 1997, 2000	Encuesta Nacional de Fuerza de Trabajo
		2001, 2002, 2003, 2004, 2007	Encuesta Nacional de Fuerza de Trabajo
Ecuador	7	1995, 1998	Encuesta de Condiciones de Vida
		2000, 2001, 2003, 2004, 2008	Encuesta de Empleo, Desempleo y Subempleo en el Área Urbana y Rural
El Salvador	14	1989, 1992, 1993, 1995, 1996, 1997 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2007	Encuesta de Hogares de Propósitos Múltiples

Guatemala	6	1998, 2000, 2002, 2003, 2004, 2006	Encuesta Nacional sobre Condiciones de Vida
Honduras	11	1989, 1992, 1996, 1997, 1998, 1999, 2001, 2002, 2003	Encuestas Permanente de Hogares de Propósitos Múltiples
		2004	Encuesta de Condiciones de Vida
		2005, 2007	Encuestas Permanente de Hogares de Propósitos Múltiples
Mexico	12	1984, 1989, 1992, 1994, 1996, 1998 2000, 2002, 2004, 2005, 2006, 2008, 2010	Encuesta Nacional de Ingresos y Gastos de los Hogares
Nicaragua	4	1993, 1998, 2001, 2005	Encuesta Nacional de Hogares sobre Medición de Niveles de Vida
Panama	11	1991	Encuesta de Hogares - Mano de Obra
		1995, 1996, 1997, 1998, 1999	Encuesta de Hogares
		2001, 2002, 2003, 2004, 2006	Encuesta de Hogares
Paraguay	20	1983, 1984, 1985, 1986, 1987, 1988,	Encuesta de Hogares - Mano de Obra
		1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996	Encuesta de Hogares - Mano de Obra
		1997	Encuesta Integrada de Hogares
		1999	Encuesta Permanente de Hogares
		2000	Encuesta Integrada de Hogares
		2002, 2003, 2004, 2007	Encuesta Permanente de Hogares
Peru	16	1991, 1994	Encuesta Nacional de Hogares sobre Medición de Niveles de Vida
		1996, 1997, 1999, 2000, 2001, 2002, 2003	Encuesta Nacional de Hogares sobre Condiciones de Vida y Pobreza
		2004, 2005, 2006, 2007, 2008, 2009, 2010	Encuesta Nacional de Hogares sobre Condiciones de Vida y Pobreza
Uruguay	9	1992, 1995, 1997, 1998 2001, 2002, 2003, 2004, 2005, 2008	Encuesta Continua de Hogares
Venezuela	20	1981, 1982, 1983, 1985, 1986 1988, 1989, 1990, 1992, 1993 1995, 1996, 1997, 1998, 1999 2000, 2001, 2003, 2004, 2006, 2007	Encuesta de Hogares por Muestreo

Table A2

Idle Youth in Latin America 1989-2009
19-24 age group

Country	% in 19-24 Age group					Change in %
	1989	1995	2000	2005	2009	1989-2009
Argentina	24.3	26.5	30.7	28.6	28.1	3.8
Bolivia	21.9	21.4	20.7	18.6	18.0	-3.9
Brasil	27.4	25.1	25.4	24.1	21.9	-5.5
Chile	36.0	29.9	33.9	29.3	33.4	-2.7
Colombia	26.8	31.1	36.8	32.0	32.0	5.2
Costa Rica	29.9	27.8	26.4	27.5	26.8	-3.1
Ecuador	32.2	32.2	29.1	27.4	25.4	-6.8
El Salvador	30.7	32.0	32.7	33.5	31.1	0.4
Guatemala	32.4	32.4	35.1	38.0	36.9	4.5
Honduras	41.1	38.2	39.2	40.6	30.0	-11.1
México	32.6	29.8	25.9	24.3	26.7	-5.9
Nicaragua	45.3	43.3	36.8	32.5	29.9	-15.4
Panama	42.2	37.8	37.1	34.6	32.4	-9.8
Paraguay	23.0	40.2	29.2	27.2	24.8	1.9
Perú	48.2	39.1	29.1	32.5	27.9	-20.2
Dominican R	35.1	35.1	32.6	32.4	25.0	-10.1
Uruguay	26.9	28.3	31.7	28.9	0.0	-26.9
Venezuela	43.1	33.9	37.8	30.5	26.4	-16.7
LA Region	33.3	32.4	31.7	30.2	26.4	-6.9

Author´s calculations using micro data from 214 household surveys. See data appendix for details.

Table A3

Idle Youth in Latin America 1989-2009
15-24 age group

Country	% in 15-24 Age group					Change in %
	1989	1995	2000	2005	2009	1989-2009
Argentina	21.2	22.7	24.9	23.7	23.0	1.8
Bolivia	16.6	17.0	17.2	13.2	12.0	-4.6
Brasil	23.8	20.7	19.9	19.4	18.6	-5.2
Chile	28.8	23.8	26.0	22.5	28.2	-0.6
Colombia	22.7	24.9	30.8	27.0	27.0	4.3
Costa Rica	28.3	25.7	25.2	24.1	23.2	-5.1
Ecuador	28.2	28.2	24.5	23.6	21.7	-6.5
El Salvador	24.7	28.3	28.8	28.0	26.0	1.3
Guatemala	28.3	28.3	35.1	33.5	31.4	3.0
Honduras	37.3	36.9	38.3	39.9	27.0	-10.3
México	28.1	26.8	22.6	21.5	24.5	3.6
Nicaragua	39.4	38.0	32.8	29.5	27.9	-11.5
Panama	35.1	31.2	30.5	27.8	27.1	-7.9
Paraguay	22.8	42.4	24.4	22.0	18.0	-4.8
Perú	40.5	33.7	25.6	32.2	27.1	-13.4
Dominican R	27.8	27.8	26.2	26.3	20.0	-7.8
Uruguay	27.0	30.3	30.2	26.5	0.0	-27.0
Venezuela	46.9	29.8	32.3	25.9	22.2	-24.7
LA Region	29.3	28.7	27.5	26.0	22.4	-7.0

Author´s calculations using micro data from 214 household surveys. See data appendix for details.