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***WHY DO YOUNGSTERS DROPOUT OF SCHOOL IN ARGENTINA AND  
WHAT CAN BE DONE AGAINST IT?***

***WORKING PAPER***

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***(Original document in English)***

# **Why do youngsters drop out of school in Argentina and what can be done against it?**

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This paper is a first draft of a sector study undertaken by the Inter-American Development Bank and prepared as a background paper for the Red de Diálogo Regional de Políticas de Educación. The authors would like to acknowledge the collaboration of Suzanne Duryea and Gabriela Cordourier, from the Research Department of the Bank, and the support provided by Jose Antonio Mejía and José Montes, from the MECOVI project in the Poverty and Inequality Unit of the Bank.

## EXECUTIVE SUMMARY

This paper uses data from 1997-99 household surveys as well as evidence from other recent studies on the links between education, poverty and inequality in Argentina, to shed light on the question *Why do youngsters drop out of school in Argentina and what can be done against it?*

*Why is this question important?* Data on recent trends in poverty and income inequality in Argentina, as well as in other LAC countries, indicate that economic opportunities stemming from economic growth in the nineties have had modest effects in terms of poverty reduction, largely because the poor have not benefited much from the new higher paying jobs. Changes in labor demand linked to globalization and rapid technological changes result in growing income differentials between highly educated individuals and those with less education. The demand for highly skilled individuals has been on the rise while that for unskilled labor tends to decline. Workers with less education face bleak prospects in the labor market, both in terms of high unemployment rates and low wages. Thus, more than ever, educational attainment is a key determinant of economic opportunities and a key element in fighting the intergenerational transmission of poverty.

*Why are the poor falling behind in educational attainment?* Education indicators together with data from household surveys tell us that the main problem, in Argentina, is that youngsters from poor families are dropping out of school massively. While enrollment and completion rates in primary education are almost universal across income quintiles, transition to and completion of secondary education are another story. Over one third of the children from the poorest quintile do not even make it beyond primary education, half of them do not complete the nine years of compulsory basic education, and three out of four of these youngsters will not complete secondary education. In a context of high unemployment, particularly youth unemployment, this educational handicap will ultimately block their access to the fast lane of economic opportunities and these youngsters will be left behind in the slow lane of low paying jobs and poverty. The data shows that the core of the problem lies in the high dropout rates of youngsters, particularly from poor families, during the first three years of secondary school (EGB3).

*Why are youngsters dropping out of school?* This paper will try to explore the various factors behind the decision to quit school, bringing together socioeconomic and family variables as well as school history and variables linked to the perceptions of youth regarding the quality and relevance of secondary education. Data from household surveys on the reasons for dropping out of school tell us that economic reasons and school related reasons are equally important. Thus it is important to put some balance in the discussion between the role of school factors, particularly the quality and relevance of the education offered, and that of economic factors affecting the demand for education.

The main hypothesis is that youngsters do not drop out of secondary school merely because they are poor, but mainly because by the time they reach secondary education, they have accumulated a long history of school failure which places them at high risk of dropping out. Economic difficulties, rising opportunity costs and other family and

societal pressures, are compounded with the low motivation and low educational expectations by the students and their teachers, eventually resulting in the decision to drop out. The problem surfaces when poor youngsters reach the first cycle of secondary education, but the root of the problem is deeper, and thus it has to be tackled earlier if it is to be effectively contained.

*What can be done to reduce dropout rates and increase the probability of successful completion of secondary education?* The main policy implications of the analysis in this paper are twofold: i) the problem needs to be tackled not only through economic demand incentives but also through a serious commitment to improve the quality and relevance of the education available to students from disadvantaged backgrounds; and ii) in order for these targeted educational programs to be effective, they have to be aimed at preventing school failure earlier, starting in primary and pre-primary education. Economic incentives may have a role to play, but their effectiveness is largely conditioned on having in place targeted pedagogical improvement programs aimed at improving the chances of success among students at risk. School failure is a cumulative process, thus it has to be tackled at its early stages, before it becomes a terminal illness.

*What are the implications for the design of targeted scholarship programs?* Given that there are both economic reasons and strong social demand for targeted transfers in Argentina, the key question becomes how to increase the effectiveness of such programs. The analysis in this paper suggests that targeted transfers alone have a modest chance of containing school dropouts but that their effectiveness can be substantially enhanced when combined with targeted pedagogical improvement programs. An illustration of this policy issue and its application in improving the design of a program aimed at reducing the number of secondary school dropouts from poor families is provided in a Box. It describes the main features of the “Programa Nacional de Becas Estudiantiles” (PNBE) including the main lessons learned from an evaluation of the first phase of the program and their implications for adjusting the design and implementation of the second phase of the program.

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## ***I. Introduction***

When looking at Argentina's economic development indicators since 1980, the trends in poverty incidence and inequality, and their relationship to economic growth are bound to draw attention<sup>1</sup>. After rising tremendously during the eighties from an initial reasonable level for Latin American standards, Argentinean poverty rates were reduced during the 1990-93 stabilization period. However, they fell far short from falling back to original 1980 levels. Moreover, since 1993 they have substantially increased again, despite significant economic growth until 1999. Since 1999, the situation has further deteriorated, reflecting the effects of economic recession and high unemployment. At the same time income inequality is on the rise, with the highest income earners gradually increasing their income over the last decade, whereas for the lowest income earners we can speak at best of stagnation.

When looking at the underlying issues, a significant part of the explanation for the continuously high poverty rates and the increase in income distribution inequality can be tied back to a change in labor demand as a result of an increasingly technologically advanced economy, tied further than ever into the world economy. The demand for skilled labor has been on the rise while the relative value of unskilled labor has declined. Indeed, while the labor earnings of professionals grew by over 50%, between 1990 and 1998, those of unskilled labor have declined by 2.7% in real terms.<sup>2</sup> It is therefore clear that beyond important issues like pending labor market reforms and the appropriate role of social safety nets to protect the most vulnerable, educational attainment is, more than ever, a crucial pillar in the long term effort to achieve a sustainable reduction of poverty and increase of opportunities for all.

Driven by fast paced technological change and increased competitiveness from economic globalization, over the last decade, the returns to education have increased significantly for people with 12 years or more of quality education, and particularly for individuals who have completed tertiary education. But at the same time, those returns on education have declined for people with nine or less years of education. Thus there is a clear risk of a widening gap in opportunities, with people either joining the 'fast lane' of rising wages for professional and skilled employees or the 'slow lane' of low wage unskilled employment for those who are unable to achieve the educational threshold that the new labor market demands.

Furthermore, the rate of return of a given number of schooling years is lower for individuals with poor parents than for others. This acts as a perverse incentive whereby poor families may consider that pursuing more education, incurring both direct and opportunity costs, is not worth it. This disillusionment is often accentuated in times of

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<sup>1</sup> See for instance "Argentina Poverty Assessment: Rich country, poor people". World Bank, April 2000.

<sup>2</sup> Ibid.

economic hardship. This was actually observed, between 1992 and 1997, by dropping school enrollment rates amongst the lowest incomes in secondary and higher education, compared to steadily higher enrollment rates for higher income families.

Thus, there is an important role for policies and programs aimed at stimulating children and youngsters to stay in school and to build up skills, in order to stand a chance at breaking the vicious circle of poverty.

### *Scope and Objectives of the Study*

The main objectives of this paper are to derive detailed information about the specific reasons behind high dropout rates of youngsters in the initial years of secondary education; to analyze the role of both school and contextual variables in order to put some balance in the discussion between supply and demand interventions aimed at reducing dropout rates; and to suggest appropriate policy implications.

The main source of information used are Argentinean household surveys between 1997 and 1999. Two types of surveys were used: EDS<sup>3</sup> (“Encuesta de Desarrollo Social”) from 1997 and EPH<sup>4</sup> (“Encuesta Permanente de Hogares”) from 1998 and 1999, including a special module on education in the EPH from May 1998. These surveys were chosen because they provide a wealth of information, not only about the socioeconomic characteristics of families by income group, but also about the educational attendance, highest grade attained, the school trajectory and the reasons reported by families and individual household members for abandoning school. These data shed a new light on the interplay of the various factors that influence the decision to drop out of school.

The information provided in these surveys complements other studies based on education sector statistics on repetition and dropout rates as well as other data gathered at school from interviews to teachers and students. The main conclusion from this study, that school related factors are at least as important as economic factors in influencing the decision to drop out, is consistent with the findings of other studies which analyze in greater detail the role of teachers and school practices. These studies highlight the role and responsibility of the school in providing quality and relevant education opportunities to all students, and the need for targeted programs aimed at students at risk.

This study focuses on the problem of high dropout rates among the poor, emphasizing the role of the school and the responsibility of educational policies aimed at improving equity in education as the main policy tool towards reducing poverty and inequality in the long run. However, the study does not elaborate on the various determinants of school quality and of the differences in education opportunities available to the poor vs. the rest of the population. This is an important area for further research that merits the attention of governments and the support of International Development Banks.

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<sup>3</sup> Provided by SIEMPRO

<sup>4</sup> Provided by INDEC

A starting point for that research agenda is to intensify the use of household surveys in monitoring, analyzing and reporting educational outcomes by income quintile. Another example of an investment that offers a high potential in terms of improving the monitoring, evaluation and effectiveness of public policies is the inclusion of specific questions or modules attached to household surveys in order to analyze the status and impact of key government programs, like education and health, on different groups of the population.

### *Roadmap*

The next chapter provides an overview of recent trends in enrollment and presents data on educational attainment by income quintile. This is followed by laying out the typical school trajectory of children from the poorest and richest quintiles. We will look at dropout rates, at what happens to those leaving school, in terms of lifelong earnings and employment opportunities. Then we focus on the issue of repetition and its main consequence measured by the age to grade backlog at school. Then the link between backlog and dropping out is further investigated, followed by a deeper look at the reasons given for dropping out. Both economic and school related reasons are described.

In the final chapter we summarize the conclusions of the study and draw the main policy implications for the design of policies aimed at reducing secondary school dropout and the lessons learned from the experience of a government program of targeted scholarships to prevent dropout among poor youngsters attending secondary school. The experience of the “Programa Nacional de Becas Estudiantiles” is presented as an illustration of how the policy issues analyzed in this study can be applied in improving the design of a specific program aimed at reducing dropout rates among youngsters belonging to the poorest income groups.

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<sup>3</sup> Provided by SIEMPRO

<sup>4</sup> Provided by INDEC



## **II. Who is dropping out, when and why?**

### **A. Differences in Educational Attainment**

#### **1. Structure of Primary and Secondary Education**

The structure of primary and secondary education in Argentina was redefined by the Education Reform Law, passed in 1993. The implementation of this curricular reform is a gradual process, starting in 1994 and continuing until today, at different pace among the various provinces. This reform extended compulsory education from 7 to 9 years, and redefined the structure and curricula of secondary education, comprising two three-year cycles, lower secondary (EGB3) which completes the nine years of compulsory education, and upper secondary (Polimodal) which ends in grade 12. The following table summarizes the current structure of the system.

**Table II-1: Structure of Primary and Secondary Education in Argentina**

| <b>Education Level</b>         | <b>Age Group</b> | <b>Grades</b>     | <b>Remarks</b>  |
|--------------------------------|------------------|-------------------|---|
| Pre-primary                    | 5 years of age   | Initial Education | Compulsory Education:<br>One year of Pre-primary<br>plus 9 years of basic<br>education<br>Three three-year cycles:<br>EGB1; EGB2 and EGB3 |
| Primary: EGB1 and<br>EGB2      | Ages 6 – 11      | Grades 1 to 6     |   |
| Lower secondary:<br>EGB3       | Ages 12-14       | Grades 7 to 9     |   |
| Upper-Secondary<br>(Polimodal) | Ages 15-17       | Grades 10 to 12   | Non compulsory  |

#### **2. Recent Trends in Enrollment**

A first glimpse at differences in educational attainment across income groups can be derived from looking at trends in enrollment rates. A recent study by FIEL<sup>5</sup> in Argentina documents a widening gap in secondary school enrollments between the poorest and the richest quintiles, between 1992 and 1997. Gross secondary enrollment rates fell by about 7% among the bottom quintile, while they grew rapidly (by about 15%) among the top quintile.

More recent data indicates that this worrying trend may have stopped. Comparing data from the EPH surveys of October 1997 and October 1999, a recent study commissioned by the Bank shows important increases in the enrollment rates of youngsters (ages 13–19) belonging to the poorest quintile in 20 out of 24 urban centers, including the larger cities of Mendoza, Santa Fé and Cordoba. In 13 cases these increases were larger than the average for the population in this age group and they were higher than 10% in eight of

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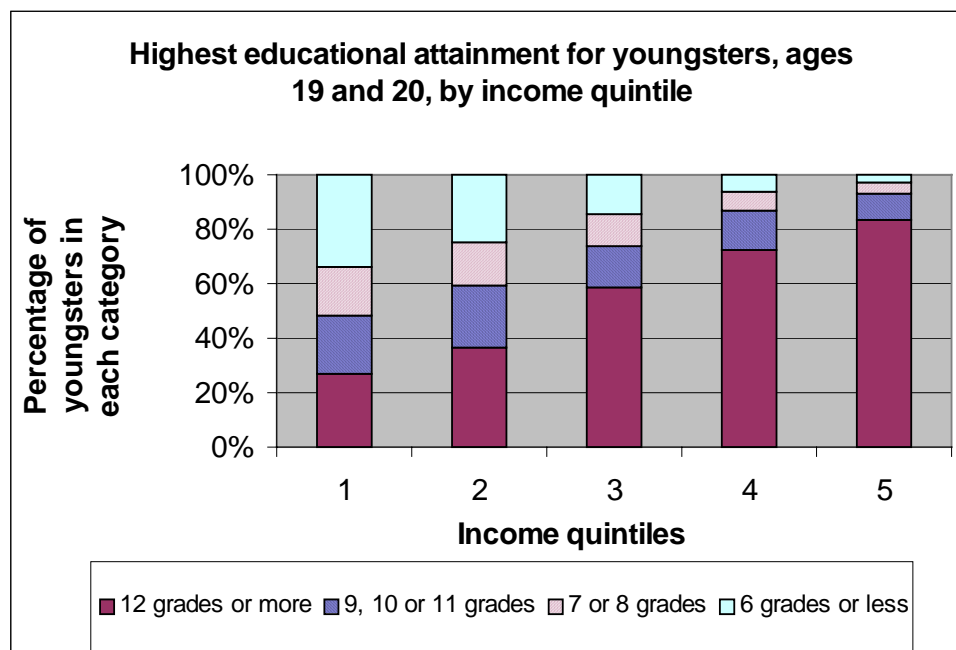
5 María Echart, " Educación Y Distribución Del Ingreso", FIEL, 1999

them. This is an encouraging sign of the positive impact of government efforts aimed at expanding access to EGB3, in less developed areas, and at providing targeted critical inputs to schools catering to lower income populations as well as targeted scholarships to students from poor families to encourage them to stay at school<sup>6</sup>.

### 3. Educational Attainment by Quintile

Beyond the trends in school enrollment, a deeper view of differences in education opportunities can be obtained by looking at the highest level of education completed, across income groups. This can be seen in the graph below, which shows wide differences in educational attainment according to income per capita of the child's household. Only about 30% of the children from the two lowest quintiles finish secondary education (grade 12), whereas this is true for over 80% of the children from the richest quintile. Over half of the children from the poorest quintile do not even complete the 9 grades of compulsory education (EGB3 under the new structure implemented starting in 1993).

**Graph II-1**



Source: EPH 99.

6 Starting in 1993 the Federal Government started a range of targeted education programs known as the “Plan Social Educativo” (PSE), consisting of \$ 703 million worth of investments in upgrading deteriorated infrastructure, providing textbooks and educational materials aimed at schools serving underprivileged children. Starting in 1997, the PSE was complemented by the introduction of a national program of targeted scholarships which provides cash transfers to poor students attending public secondary schools. This program has been financed by the Inter-American Development Bank and is about to enter its second phase. The study mentioned is the evaluation of the first phase: “Informe de Evaluación del Programa de Becas Estudiantiles de la República Argentina”, by Pedro Ravela, Dec. 2000. This study, however, did not include Buenos Aires Province, which did not participate in the program.

The data presented indicates that achieving equal access to schools is only a first step towards improving educational opportunities for the poor. Even though there is still room for continuing to expand enrollment, particularly at the secondary level, and recent efforts have gone a long way towards this goal, the main challenge now consists in containing the massive dropout rates, particularly among the students of poor families.

**Table II-2 Dropout rates amongst youth (12-20 years) within different quintiles.**

| <b>Quintiles</b> | <b>% of all who dropped out</b> | <b>Not enrolled as % of all children within quintile</b> |
|------------------|---------------------------------|--|
| Q1               | 41.3%                           | 35.6%  |
| Q2               | 28.5%                           | 32.8%  |
| Q3               | 17.0%                           | 25.9%  |
| Q4               | 9.5%                            | 19.8%  |
| Q5               | 3.7%                            | 11.1%  |
| <b>Total</b>     | <b>100%</b>                     | <b>28.6%</b>   |

Source: EDS 1997

The first column in table above shows that a vast majority (70%) of the youngsters who drop out of school belong to the bottom two income quintiles; and that the probability of dropping out is higher among the bottom quintiles (36% and 33%) than the corresponding probability for students in the upper income quintiles (20% and 11%). The overwhelming concentration of dropouts among the poorer quintiles results from the fact that poorer households have a larger number of children per family, which amplifies the effect of higher dropout rates among the poor. These youngsters represent approximately one million individuals, or roughly half of the population from the bottom two quintiles attending school (around 2 million students). They are the main target group for federal compensatory programs such as the targeted retention scholarships.

While it is clear that the core of the problem lies in the very high dropout rates among youngsters from poor families, it is important to resist the temptation to jump to the conclusion that these students dropout merely because they are poor. The next four sections explore the roots of the problem and the multiple factors behind this phenomenon.

***B. School Trajectory of children from the poorest and richest quintiles: similar enrollment in primary, but very different paths***

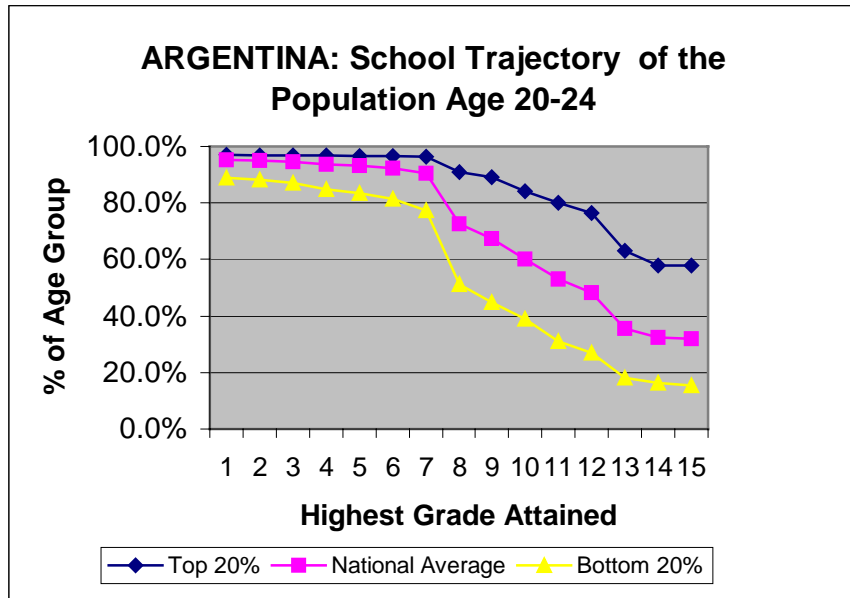
To put the data about educational attainment into context, this section lays out the expected school trajectory of a typical student belonging to the poorest 20% of the income distribution versus one from the richest income quintile, using data from the “Encuesta de Desarrollo Social” (EDS 1997). Other complementary data from the

“Encuesta Permanente de Hogares” from 1998 and 1999 are used to analyze the profile of individuals dropping out and the reasons given for dropping out.

### 1. From enrolling to dropping out

Graph II-2 below shows a very compelling story born out by the data: although primary enrollment and completion is almost universal across income quintiles<sup>7</sup>, the same cannot be said for secondary education. Youngsters from the bottom quintile are massively dropping out in the transition from primary to secondary education and continue to dropout significantly throughout secondary school. By 9<sup>th</sup> grade (end of compulsory education) roughly half of the poor students have dropped out and only one out of four of them survive to complete secondary education (grade 12). This contrasts with over 80% of the students from the top quintile completing 9<sup>th</sup> grade and three out of four of them completing secondary education.

**Graph II-2**



Source: EDS 97.

The data above must be interpreted with caution since it represents a snapshot of the educational attainment of a broad group of the population who have left the education system in different periods. For example, a person who is now 24 years old and who quit school at the end of primary over 10 years ago went through an education system that may have changed substantially since. This means that part of the sharp drop in Graph II-2 between 7<sup>th</sup> and 8<sup>th</sup> grades reflects something that may have happened a decade ago. The actual flow of students today will be better or worse than this static picture depending on whether the internal efficiency of student flows has improved or worsened.

<sup>7</sup> However, it must be noted that one out of five students from the bottom income quintile do not complete primary education.

Nevertheless, the above approach provides a useful starting point to the analysis which can be complemented by looking at other data from the household surveys.

Using data from the EPH surveys we can learn more about the school trajectory of dropouts and about their family and individual characteristics. These data will provide valuable clues as to the possible reasons for dropping out.

As a starting point, the *enrollment ages* of children in the primary education system were compared according to income quintiles. The main thing that can be learned from these data is that for Argentina –different from some other Latin American countries- there is no significant divergence between enrollment ages for children from the different quintiles, and the enrollment is also nearly universal. For all quintiles about 78 to 80 out of 100 enroll at age of six; and 12 to 14 out of 100 enroll at age seven. This, however, does not give any indication as to how prepared the children are for their life at school. Even though they start at a similar moment with primary education, different stimuli during the pre-primary life, within the family, within its wider environment and of course also through pre-primary education, can put children at very different levels of readiness to learn when entering primary education. This is reflected in lower levels of attainment of kids from the poorest quintile in primary school and in the end results from Graph II-2 which indicate that in 20% of them drop out even before completing primary.

Many more children are lost in the transition between primary and secondary and in the initial years of secondary education, particularly among the poor. This picture, however, requires a caveat. In 1994 Argentina started implementing an Educational Reform which extended compulsory basic education from seven to nine years and introduced a new curriculum for secondary education. At that point in time many schools in rural and in poorer areas were primary schools ending in grade 7<sup>th</sup>. Thus, Argentina undertook a major effort to expand coverage of grades 8<sup>th</sup> and 9<sup>th</sup> throughout the country, a process that has taken time to consolidate. Therefore, many of the individuals who abandoned school at the end of primary probably came from those incomplete schools. Since then the proportion of students dropping out at the end of 7<sup>th</sup> grade has significantly declined as access to EGB3 has expanded. Further analysis of the data indicates that this is indeed the case. When the analysis is restricted to individuals having dropped out of the system in the two years prior to the survey the proportion dropping out in the transition from 7<sup>th</sup> to 8<sup>th</sup> grade, although still quite high, is roughly similar to the proportion dropping out after 8<sup>th</sup> or 9<sup>th</sup> grades.

In any case, the main conclusion is that poor kids<sup>8</sup> drop out much more than non poor kids, and that the problem is particularly severe during the first cycle of secondary school. According to the most recent data (EPH 99) the probability of a poor kid completing EGB3 is roughly 48% vs. 93% for the student from the top quintile; likewise,

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8 In this paper the poor are roughly equivalent to the population in the bottom 20% of the income distribution. This results from the fact that roughly 20% of families in Argentina have incomes below the Bank's poverty line for Argentina.

the probability of completing Secondary School (12<sup>th</sup> grade) is less than 27% for the poor student vs. 83% for the rich one. This means that most of the attainment gap between rich and poor is accumulated during the critical years of the EGB3. Consequently, remedial and compensatory programs are mainly targeted at that level.

Furthermore, the massive dropout during EGB3 acts as a bottleneck blocking access of poorer students to upper secondary education. Indeed, while students from the bottom quintiles are over-represented in primary education (a fact resulting from the bigger families among the poor), they are under-represented in secondary school enrollments, particularly in upper secondary (officially known as Educación Polimodal).

## 2. Profile of Secondary School Dropouts:

Who are these youngsters dropping out of secondary school? Besides the fact that the majority of them belong to the bottom two quintiles of the income distribution, what else can we learn about their families, their labor market participation and other individual characteristics which may be influencing their decision to quit school early? Table II-3 below summarizes the main characteristics of youngsters between the ages of 15 and 18, who are dropping out of secondary school. The profile of other youngsters in the same age group who stayed at school is provided for comparison.<sup>9</sup>

**Table II-3: Dropout Profile; Individual and Family Characteristics**

| Age Group 15-20              | Dropped Out   | Attending School |
|------------------------------|---------------|------------------|
| Males                        | 54.2%         | 48.9%            |
| Females                      | 45.7%         | 51.1%            |
| % Working                    | 45.5%         | 13.8%            |
| Family Income p.c. (monthly) | 178 pesos (1) | 301 pesos        |
| Father Schooling (years)     | 6.97          | 9.54             |
| Mother Schooling (years)     | 6.89          | 9.40             |
| Number of siblings           | 3.17          | 2.48             |

(1) Given Argentinean exchange parity with the dollar, the figure represents either pesos or dollars.

**Table II-4: School Trajectory of drop outs vs. students still attending school**  
(percentages of students in each category according to grade attained)

| School Grade Attained          | Dropouts<br>(last grade attained)* | Students Attending School<br>(current grade) |
|--------------------------------|------------------------------------|--|
| 6 <sup>th</sup> grade or less  | 6.2%                               | 1.5%   |
| 7 <sup>th</sup> grade          | 22.8%                              | 1.7%   |
| 8 <sup>th</sup> grade          | 21.5%                              | 8.0%   |
| 9 <sup>th</sup> grade          | 26.2%                              | 12.2%  |
| 10 <sup>th</sup> grade         | 13.2%                              | 20.8%  |
| 11 <sup>th</sup> grade         | 8.3%                               | 16.5%  |
| 12 <sup>th</sup> grade or more | 1.6%                               | 37.5%  |

\* Excludes students who had left school over two years before. Source: EDS 1997

9 The results come from the EDS 1997 survey.

From Table II-3 it is clear that dropouts belong to families whose parents have less education (only primary or less) while parents of those staying at school have completed over 9 years of education. It is also worth noticing that both groups have parents who, on average, have not completed secondary education, which means that the majority of students enrolled in secondary education are the first generation in their families trying to achieve that goal. Furthermore, the average per capita income of the families of those students dropping out (\$178/month) is barely above the poverty line and roughly one half of the family income level for students who stay at school. This is also consistent with the fact that dropout kids belong to larger families (with 3.5 siblings vs. 2.6 for the rest).

Regarding individual characteristics, the data shows that males tend to drop out more than females, a feature now common to several countries in the region. Finally, 45.5% of youngsters dropping out are working vs. only 13.8% for those who remain in school. While this is an indicator that economic factors may be pushing kids to drop out in order to work, it is equally important that over half (54.5%) of the students who have dropped out are not working either. In a context of high unemployment, particularly among youth with less education, the prospects for secondary school dropouts in the labor market are rather bleak. This will be further examined in the next section. The only positive side of this is that the opportunity cost of being at school, in terms of lost wages, is probably not very high.

From Table II-4 it is clear that most students are dropping out during the EGB3 while their peers of the same age group who stay in school are attending and finishing the Polimodal. This provides an indicator of the magnitude of the attainment gap between the two groups (the difference in the median attainment between the two groups is more than 2 grades) as well as a *proxy* of the age to grade gap that the dropouts have accumulated when they decide to quit school.\* This accumulated school backlog is an important part of the story leading to quitting school, as will be shown later.

### ***C. What comes after leaving school early?***

As mentioned above, the prospects for a secondary school dropout in the labor market in Argentina today are increasingly harsh. Youth unemployment (for ages 15-20) stands at around 33%, more than twice the unemployment rate for the economy (16% in May 2001). Not surprisingly, one out of two dropouts between the ages of 15 and 20 cannot find a job. The odds for a school dropout from a poor family are even slimmer. Another look at the same data, from EDS 97, tells us that over half of all the youngsters who are neither at school, nor working belong to the bottom income quintile. Indeed, the poor

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\* Youngsters represented in this table are between the ages of 15 to 20 years, therefore they should be attending grades 10 or higher (as most students still attending are). By contrast, the vast majority of dropouts quit school after grades 7, 8 or 9. Since the table excludes students who dropped out more than two years ago one can infer that they were at least two years older (on average) than the reference age for those grades, at the moment of dropping out.

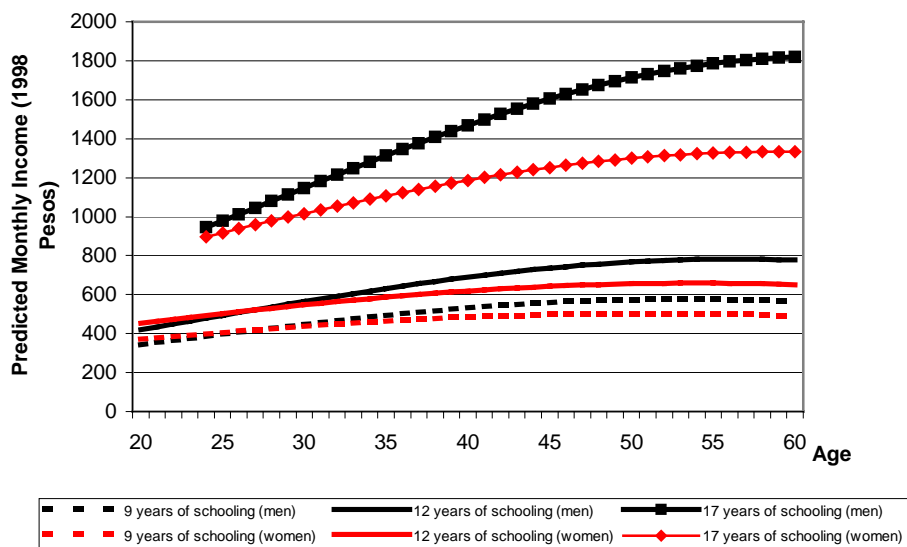
account for 52% of these kids. This poses a serious challenge for both education and social welfare programs.

Not only is there little for these youngsters to benefit in terms of current income from work but there is a tremendous economic loss for the rest of their lives in terms of foregone opportunities from abandoning their education. Although the economic returns are only part of an individual's motives for staying in school, how should a potential dropout weigh his/her options? On the one hand, the economic returns for an additional year of secondary education are only around 10% and there are signs that they may be beginning to decline. On the other hand the returns for higher education (at 17% per additional year of education) are very high and growing. This means that completing secondary education is not only a way of achieving the minimum educational threshold demanded by the labor market, but it is mainly a promise of better opportunities depending on the options available at the post-secondary level.

In order to have a better idea of the costs of dropping out of school over a persons lifetime earnings, data from the EPH 98 was used to estimate Mincerian labor earnings functions, where expected wages are a function of experience and years of education attained. These functions were estimated separately for males and females and then used to project the gap in terms of lifelong earnings between individuals who complete 9, 12 or 17 years of education -- corresponding to compulsory basic education, complete secondary and complete tertiary education, respectively. The results are shown in the graph below.

**Graph II-3**

**Predicted Monthly Income by Age and Education Level  
Women and Men Ages 20-60, Urban Areas**



Source: Social Information Service, RES. Based on data from EPH 98.



Several conclusions can be drawn from the graph above:

- First and foremost, there are clearly two tracks in terms of income earning opportunities: the “fast track” for professionals having completed post-secondary studies, and the “slow track” for those who have achieved less than secondary education.
- The biggest premium in terms of increased wages comes as a result of completing higher education. Secondary education may not be sufficient but it is a prerequisite for gaining access to the “fast track”.
- The expected increase in wages as a result of increasing educational attainment from 9<sup>th</sup> to 12<sup>th</sup> grades is relatively modest. In fact, the starting wage may not be very different since probably the jobs that can be found are not all that different. The main difference is a moderate increase in the expected wages accumulated over a lifetime, compared to a flatter earning profile for individuals who do not complete secondary education.
- Although completing secondary education does not guarantee access to the high paying jobs, it represents a promise of greater access to further opportunities and is fast becoming a prerequisite to remain employable and re-trainable, two highly valued qualities in today’s labor markets.<sup>10</sup>
- There are sizeable differences in labor earnings between the sexes, for the same experience and level of education. This provides a good measure of the magnitude of wage discrimination against women in the labor market.
- In particular, the projected lifetime earning curves are flatter for women at any level of education. On average, a woman can expect to see her monthly earnings increase by 50% over a lifetime. By contrast men can expect to see their incomes double over the same period. Paradoxically, these signals from the labor market are inducing women to stay at school as long as they can since higher education greatly increases their chances to get a job and may be seen as the only way to achieve higher incomes.

The following table summarizes the effects of more years of education in terms of greater employability and higher expected wages for men and women between 30 and 45 years of age. This is the age group for which labor participation rates are more consistent. These data confirm the conclusions drawn above and provide an interesting new element

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10 Families with two breadwinners who have completed secondary education typically belong to the middle class in Argentina. A middle class that is struggling but usually manages to stay above the poverty line.

in the case of women. The big jump in the percentage of women working only occurs for professional women. In fact Argentina has one of the lowest average labor participation rates by women. The only exception is women who have completed higher education (17 years). This result is entirely consistent with the hypothesis that women's participation in the labor market is more selective and this is probably part of the explanation for the fact that women systematically achieve more years of education than men. They stay at school longer and try to become professionals as the best strategy to overcome gender discrimination in the labor market.

**Table II-5: Employability and Expected Wages by level of Education**

| Years of Education Completed | % Employed Age Group 30-45 |         | Expected Wages Index: (Males,7)=100 |         |
|------------------------------|----------------------------|---------|-------------------------------------|---------|
|                              | Males                      | Females | Males                               | Females |
| 7 years                      | 64.5                       | 39.6    | 100                                 | 85      |
| 9 years                      | 69.1                       | 44.6    | 118                                 | 102     |
| 12 years                     | 72.9                       | 48.9    | 164                                 | 139     |
| 17 years                     | 94.3                       | 82.0    | 409                                 | 329     |

Source: RES, Social Information Service, based on EPH 98.

The analysis in this section has shown that immediate economic benefits of abandoning school in order to work are slim while the lifelong costs of dropping out of school before completing secondary education are substantial, both in terms of employability and of giving up potential opportunities to the higher paying jobs over an individual's lifetime. Argentinean youngsters who drop out of secondary school, like their counterparts in many other countries, find themselves in a dead-end street and are almost certainly condemned to perpetuate the cycle of poverty. If this is so, why do youngsters keep dropping out of secondary school? Part of the explanation lies in the higher discount rate applied to future earnings amongst poor youngsters. This induces them to make decisions that seem "short sighted" from a lifetime perspective. On the other hand, in order to answer this question it is important to look deeper into the interplay of school and contextual variables pushing them to drop out.

In the next section we will take a closer look at the process of school failure which plays a big role in setting students in a course of high risk of dropping out. We will then examine how this process concentrates that risk among the poorer students trapping them in a vicious cycle of chronic repetition which ultimately leads them to abandon school.

#### **D. Why do they drop out? The role of school factors.**

While it is evident that the majority of high school dropouts belong to the bottom two quintiles of the income distribution, this should not lead to the immediate conclusion that they drop out merely because they are poor. Further examination of the factors behind dropping out will show that there is more to the story.

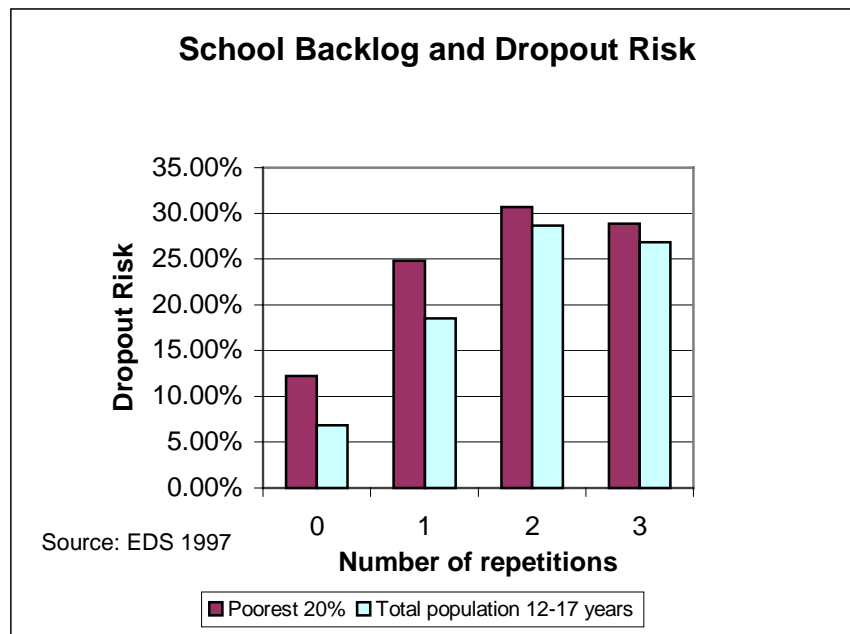
At first sight there is a clear correlation between the probability of dropping out and the income quintile of the student's family. As previously seen in Table II-2 (page 10), the risk of dropping out among the poorest quintile is roughly 36%, almost three times the probability of dropping out for a student from the top quintile (11%). Thus, it is not surprising that 70% of youngsters between 12 and 20 years of age who have dropped out of school belong to the two first quintiles, and 41% of them are poor.

By now we know that the poor are at greater risk of dropping out but we do not know why or how they get to be at risk. Now we will examine the role of the school and the process whereby shortcomings in the education offered to the poor play a determinant role in placing poor students at risk of dropping out. The set up towards dropping out of school is rather a gradual process of accumulated school failure whereby the risk of dropping out is progressively concentrated among the poorest students. Once a student is trapped in a cycle of repeated school failure he or she succumbs easily to economic, family or peer-group pressures to leave school in pursuit of an illusion of financial independence.

### 1. The Link between Repetition and Dropout

The graph below shows that there is a high correlation between a student's prior history of school failure and his chances of dropping out. Accumulated school failure is measured by the number of years of backlog of the grade a student is enrolled in with respect to the grade he/she should be attending, given his/her age. It is clear that the risk of dropping out increases with the number of times he/she has repeated a grade at school. It is a well established fact in educational research that chronic repetition does not improve a student's performance but instead increases the chances for school failure.

**Graph II-4**



Three points are worth highlighting from the graph above:

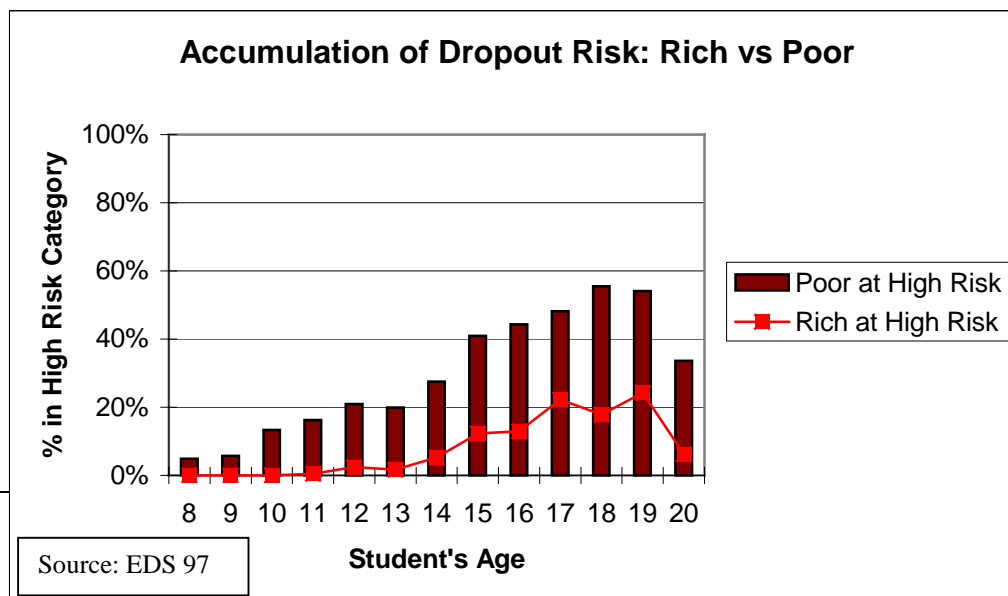
- The risk of dropping out grows hand in hand with the number of repetitions a student has accumulated over his prior school history.
- Although the risk of dropping out given a particular number of repetitions is higher for poor kids than it is for the rest of the school population, this difference tends to vanish as the number of repetitions increases.
- In other words, accumulated school failure plays a dominant role, independently of the income level. Thus school factors bear an important part of the responsibility in the process.

2. How does the dropout risk become concentrated in the poorer students?

The previous section examined the link between repetition and dropout risk. This section will show how chronic repetition, which is higher among students from poor families, results in a process which starts at the primary level, whereby accumulated school failure gets concentrated among poor students.

Given that the risk of dropping out substantially increases with two or more repetitions and that this risk stays roughly the same beyond that number, we define an indicator of dropout risk with two categories: high risk for those with two or more years of backlog and low or moderate risk for zero to one years of backlog. The next graph shows how the typically higher repetition rates among students belonging to the bottom 20% rapidly results in a large proportion of them under the category of high dropout risk. This process is much more moderate for students from the top quintile, who typically repeat less.

**Graph II-5**



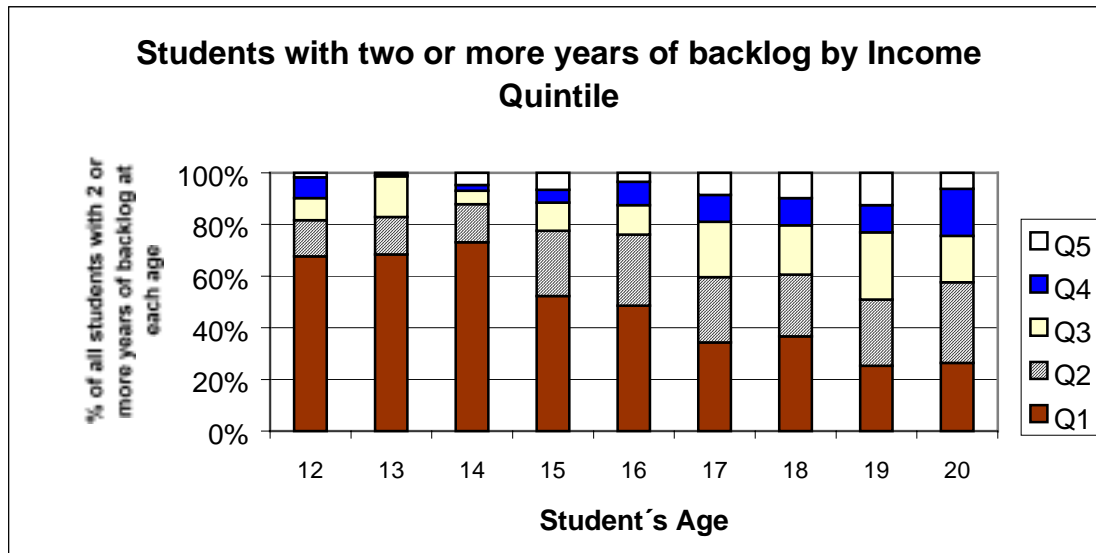
At the age of 12, when students are typically making the transition from primary to EGB3 (6<sup>th</sup> to 7<sup>th</sup> grade), one out of five kids from the bottom quintile has accumulated two or more repetitions which places him/her at high risk of dropping out, already in the first year as a secondary student. By contrast almost no kids from the top quintile are in this situation at age 12. As students struggle through secondary school, the proportion of them who accumulate two or more repetitions grows, although at a very different pace between poor kids and richer kids. By the time they are 15 years old, which is when they should be entering upper secondary (Polimodal) already 40% of the poor students are at high risk of dropping out. The proportion of poor students at high risk stays very high (around 50%) between ages 17 and 19, and only drops for age 20, meaning that few students from this group stay in school past this age. Not surprisingly the proportion of students from the poorer quintiles who drop out of secondary school is much larger than that for students of the upper quintiles.

The next graph shows the composition of students, ages 12 to 20, at high risk of dropping out, by age and income quintile. The data shows how the student population at high risk of dropping out is rapidly concentrated among the two bottom income quintiles (Q1 and Q2). Thus, the school system exerts its selectivity and in the process sets poor students up for abandoning school. At age 12, out of 100 children at school with two or more years of backlog, over two thirds (67%) belong to the poorest quintile (Q1). At age 13, out of 100 children in the system with two years or more of backlog, 68 are from the poorest quintile whereas only 1 is from the richest quintile (Q5). At age 14 this figure goes up to 73 from the poorest quintile vs. five from the top quintile. At age 15 there is a sharp change in the composition of kids at risk remaining in the system: the proportion from the poorest quintile drops to 52% while that of the second quintile increases to 25%. This is a clear sign that a large number of poor kids have already dropped out of the system. Given that these kids have at least two years of backlog, this drop corresponds to the transition between 7<sup>th</sup> and 8<sup>th</sup> grades (the end of the former primary school) which is consistent with the data examined earlier (see graph II-5). This process of regressive selectivity continues throughout secondary school with increasingly less survivors from the poorest quintiles. By age 13, roughly 40% of students enrolled belong to the bottom quintile<sup>11</sup>, however, this proportion is reduced to 21% by age 18. If we count only those students with no backlog remaining at school at age 18, the poorest quintile accounts for only 8% of them.

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11 This is due to the fact that low income families usually have more children than higher income families.

Graph II-6



Source: EDS 97.

It is thus clear that a significantly higher number of children from the poorest quintile who do enter secondary education, arrive with scars of having repeated once, twice or even more times. And this situation usually gets worse throughout secondary education until they eventually quit school.

It is easy to imagine how the pressure to drop out builds up on a child with an accumulated history of school failure and belonging to a low-income family. Typically, these children come from families where the parents barely completed primary education and therefore the kids are at a great disadvantage both in terms of the cultural endowment at home as well as in terms of role models. Furthermore there is usually family or peer pressure to become financially independent or to contribute economically to support the family. This goes together with a severe disenchantment about the quality and relevance of school and low expectations in terms of educational attainment and achievement by the teachers and the students themselves. Under these circumstances, these low expectations tend to become a self-fulfilling prophecy.\*

On the other hand, students of the same age belonging to the top quintile have typically passed those difficult transition years, and everyone, including themselves, has high expectations of them going on to university. They are on the 'fast lane', whereas a lot of the poor youngsters are trapped in the 'slow lane'.

\* These factors are analyzed in other studies: see for example Sanjuán, A.M. "Deserción o Exclusión de la Educación Media, el caso de Argetina", ", Study prepared for the Regional Policy Dialogue on Education and Training, July 2000.

### 3. Reported reasons for dropping out: economic vs. school factors.

In order to have a more comprehensive perspective on what makes youngsters drop out of school, and with the aim to come up with a balanced set of policy recommendations, an analysis was made of the reasons children or their family indicated for them leaving school between the ages of 12 to 20 years. Two sets of data were used, both representing urban centers across the whole country, with small differences as to the degree to which they represent more sparsely populated areas. One set is the EPH 1998 'Módulo de Educación', and the other one is the EDS 1997 survey.

**Table II-7**

| <b>Reasons for dropping out</b>                              | <b>EPH survey (1998)</b>                               |        | <b>EDS survey (1997)</b>   |        |
|--|--|--------|--|--------|
| <b>Economic reasons</b>                                      | 'need to work/do not have money', 'cost of transport'  |        | 'schooling costs', 'transportation costs', 'need to work to survive or to maintain family'                     |        |
|  | <i>Quintile 1</i>                                      | 35.3 % | <i>Quintile 1</i>  | 40.4 % |
|  | <i>Quintile 5</i>                                      | 22.3 % | <i>Quintile 5</i>  | 29.3 % |
|  | <i>Total</i>   | 31.6 % | <i>Total</i>   | 37.5 % |
| <b>Reasons related to quality and relevance of schooling</b> | 'didn't like to study' and 'had difficulties to study' |        | 'school schedule', 'content uninteresting', 'school is difficult', 'difficult to get to', 'was not interested' |        |
|  | <i>Quintile 1</i>                                      | 41.5 % | <i>Quintile 1</i>  | 52.1 % |
|  | <i>Quintile 5</i>                                      | 35.3 % | <i>Quintile 5</i>  | 45.2 % |
|  | <i>Total</i>   | 42.5 % | <i>Total</i>   | 55.2 % |

The main message from the Table above is that both economic and school related factors are reported as important determinants of the decision to drop out. In fact, reasons related to the school or the perceived relevance or quality of the education represent a higher percentage of the reasons cited than economic factors. That this is true even for the bottom quintile merits some thought since it puts some balance between school and economic factors in the perspective from which dropping out of school is analyzed.

Although the EPH 98 and the EDS 97 differ in the choices given as reasons for dropping out of school, in both cases the individual's or the family's perceptions about the quality, difficulty, value or relevance of schooling play an important role. For the EPH 1998

study the reasons 'didn't like to study' and 'had difficulties to study' together are given by over 40% of the total number of dropouts as the main reason for dropping out. For the EDS 1997 study the reasons given are 'school schedule', 'content uninteresting', 'school is difficult', 'difficult to get to', 'was not interested'. These reasons were given in over half of the cases by the average family and, most important, by the poorest families. These are all reasons that concern education policies and programs and they all point in the direction of improving the quality of the education offered as the main policy variable to reduce dropouts. Likewise, pedagogical practices must strive to deliver an education that is better adapted to the needs and expectations of youngsters.

On the other hand, the data also shows clear results in relation to economic factors as reasons for leaving school. In the case of the EPH 98, the reasons given are 'need to work/do not have money' and 'cost of transport'. In the case of the EDS 97, they are 'schooling costs', 'transportation costs', and 'need to work to survive or to maintain family'. Between 35.3% and 40.4% of the children in the poorest quintile and 31 to 36% of all respondents cite these economic reasons. They are clearly associated with the three main types of costs associated with education: opportunity costs, direct and indirect private costs. Thus, economic incentives also have a role to play in fostering the demand for education.

We can conclude that both factors related to the quality and relevance of the schooling, as well as the economic conditions are highly significant as reasons for dropping out. Therefore a policy aimed at reducing the drop out rate ought to be balanced between measures to increase the quality and relevance of schooling and measures to reduce the economic burden on low-income families of sending their children to school. Demand side measures, however, ought to be viewed as complements, not substitutes, to measures directed at improving the quality, and relevance of the education given and the challenge for teachers and education policy makers to make education more responsive to the needs and expectations of the students. These factors are explored in greater depth by another study.<sup>12</sup>

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12 Sanjuán, A.M., July 2001 (Ibid).



### **III. Conclusions and Policy Implications**

The data presented in this paper indicates that it is critical to develop educational policies and programs to deal with the problem of poor youth dropping out massively during secondary education. The recent data on educational attainment shows that this problem is the main bottleneck towards equalizing education opportunities and outcomes, given that completing secondary education is the minimum threshold set by the labor market in a context of increased competitiveness and globalization.

The consequences for youngsters who drop out before finishing secondary education are dramatic in terms of high unemployment and low lifelong earnings. This makes a strong case in favor of investing resources now to address this issue. These investments must be part of an integral approach to education policies, combining supply and demand measures, while maintaining a clear mandate that it is the role and responsibility of schools and teachers to make sure that all students achieve these objectives.

Teachers and school principals ought to focus on what they can do in their daily pedagogical work to make school more interesting and more effective instead of merely blaming contextual factors and variables outside the control of the school for their inability to deliver. The school cannot be responsible for solving the broader economic problems of poverty, unemployment or lack of growth, but neither can it relinquish its main responsibility of offering adequate learning opportunities for all students, regardless their socioeconomic context.

Given that the educational level of household members influences the educational attainment of children, even more than the household income, increased educational attainment of poor youth will -- if nothing else -- have an automatic positive effect on the educational level achieved by their children<sup>13</sup>. This sets in motion a virtuous intergenerational cycle of more education which goes hand in hand with upward social mobility. These are positive spin-off effects that are not measured when simply looking at the immediate income gains from people reaching a higher educational level.

The bulk of the problem related to dropping out, becomes visible at the secondary education level<sup>43</sup>, or at the transition between primary and secondary. However, most often these are final results of a gradually deteriorating situation with an increased risk of dropping out because of having repeated one or several grades either in primary or in secondary education. As shown throughout the paper, the link between repeated repetition and dropout risk is strong. This is actually not just limited to the poorest children, but rather true across income groups. However, the shortcomings of the school and the selective nature of the system tend to concentrate backlog and dropout risk precisely among the poor.

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13 CEPAL 1994, 1996.

The poor are over-represented among those who drop out not merely because they are poor, but mainly because they have been carrying with them problems of repetition and deficient skill-building that started already in primary or even at pre-primary age. This severely increases the risk of dropping out when the transition to secondary is made, because the outside pressure due to a perceived increase in the opportunity cost of staying in school is building up, and the expectations by the child, his/her family and teachers are low. Thus, the analysis in this paper suggests that targeted educational programs aimed at students with lower learning achievements should start at the primary level. Likewise, broadening access to pre-primary education for the poorest kids is also a powerful tool for preparing them to do well in primary and later on in secondary education.

A central conclusion of the paper is that there is a need for balance between the traditional supply driven responses to improvement of education and economic demand fixes. The role of the school and the educational system as a whole in bringing about change to the situation of children leaving school early should not be underestimated. The issues of educational quality should be addressed throughout both primary and secondary education. Public policy should be targeted towards uplifting the quality of education in public schools in general, and should also be reinforced with compensatory programs and positive discrimination interventions targeted towards children at risk.

Economic incentives to stimulate demand for education have a role to play, but this role has to be understood in the context of other school and family variables. In other words, a targeted system of scholarships or grants to poor children should not be seen as a miracle solution by itself. It must be closely linked to efforts on the pedagogical side as well. This is analogous to learning when to start treating a serious illness. There is need for much more preventive work, starting in primary or even pre-primary education, so as not to have to deal only with terminal patients for whom it may be too late to try to recover them by giving them a scholarship when they have already accumulated a long history of school failure.

The above conclusions have further implications for public financing of education programs: Since the private returns to secondary education may not be high enough to ensure that families invest the necessary resources needed for their children to complete secondary education, there is a clear role for investing public monies through programs to raise the quality of the education opportunities available to the poor, and to compensate them for some of the economic costs incurred by attending school, so as to ensure that they are not left behind. The returns of these investments for society are substantially higher than the private returns and the longer-term perspective of society as a whole should help compensate for the often short-sighted view of economic returns from an individual's perspective.

On the contrary, the very high private returns to higher education and the fact that the majority of those completing secondary and entering the university come from upper middle income families who can pay for their education, indicate that it makes sense to revise the policy of free subsidized university education for all.

## ***An application to the design of a specific program: The experience of “Programa Nacional de Becas Estudiantiles”***

This study was carried out in parallel to the preparation of the second phase of a program of the Ministry of Education of Argentina, which provides targeted scholarships to poor students enrolled in public secondary schools serving underprivileged groups of the population. This process provides an illustration of how the policy issues reflected in this paper and the results of an evaluation of the first phase of the program were incorporated into the project design. The main features of the program, the results of the evaluation and their application towards improving the effectiveness of the program are summarized in the Box below.

### **Box III-1: Improving the Effectiveness of Targeted Scholarships in Argentina**

In 1996, the government of Argentina began a program, the “Programa Nacional de Becas Estudiantiles” (PNBE), which provides targeted cash transfers to poor students enrolled in public secondary schools. The objective of the program was to reduce dropout rates among these students.

Between 1997 and 2000, the program distributed 170.000 scholarships of \$600 per year to the poorest students attending secondary school; the cost of the program is around \$60 million a year and it benefits roughly 60.000 students, one fourth of the target population.

An evaluation of the program was done in 2000 and five main findings were reported: i) the scholarships were adequately targeted towards the poorest students; ii) secondary enrollment rates among the poorest quintile grew in the urban centers where the program was implemented; and iii) schools in the program showed a significant improvement in their repetition and promotion indicators; iv) however, the probability of a poor student dropping out was not radically changed because of receiving the scholarship; and v) furthermore, the increases in attendance and promotion rates among the poorest quintile went hand in hand with a widening gap in learning results between schools in the program and the rest.

This led to a fruitful policy dialogue with the new authorities at the Ministry of Education, who were concerned about the lack of quality improvement from analyzing the results of standardized tests. As a result of this process the following adjustments for the second phase of the program were made: i) the pedagogical component of the program was strengthened by financing pedagogical support to students at risk and providing textbooks to all students in schools participating in the program; ii) the approach of the program shifted from a transfer which was seen as a subsidy for poor kids towards a merit based scholarship whereby students receive the scholarship because they manage to successfully complete a year and maintain adequate achievement results, despite being poor; iii) consequently, the procedure for selecting and assigning scholarships shifted from yearly selections based mainly on a ranking of the poorest students, to a process that guarantees scholarship recipients the renewal of their scholarship as long as they are promoted and maintain adequate academic standards; iv) schools in turn must regularly monitor and report on the academic progress of scholarship recipients in order to maintain eligibility to participate in the program.

This experience provides a good example of how the results of evaluation and applied research focused on policy issues which have the full ownership by the education authorities of a country can lead to a fruitful partnership with the Bank that effectively translates into improvements in the design and implementation of educational programs.

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