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Failures in School Progression

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I. INTRODUCTION

The relevance of having a solid education system to improve society as a whole is widely recognised in developed and developing countries.

A solid system involves an appropriate performance not only in the quantitative but also in the qualitative aspects of human capital formation. The former refers to access to education and its completion, and the later is more dedicated to understanding differences in learning measures- albeit imperfect- such as test scores.

While in developed countries mandatory education level is a goal almost achieved, policymakers in developing countries still have to do a lot in terms of improving access, and more specifically, designing strategies in order to ensure successful educational paths for young people.

In fact, as pointed out later in the paper, the examination of basic educational indicators shows that a high percentage of children in Argentina experience failures during their educational path, and most of them finally drop out of school.

While these issues are highly relevant in Argentina and a variety of literature is also available, there are, however, far fewer empirical applications to this effect. The main limitation usually arises from the lack of data on individual educational trajectories.

During 2005, the National Institute of Statistics and Census - INDEC jointly with CEDLAS, carried out a specific module (Educación y Empleo de los Jóvenes EEJ) incorporated into the current household survey (EPH) to young people (15 to 30 years old) living in Greater Buenos Aires. This module aimed to capture educational path as well as labor market experiences.

Unlike much research on schooling, the EEJ module allows the tracing of individual education histories from early in life in a retrospective manner. Tracking these paths is of fundamental importance when education is understood as a cumulative process - past events have some lasting effect, although their value in explaining output may diminish over time (Hanushek, 1979, 1986).

Aim of the paper

The objectives of this paper are two-fold. Firstly, to analyse the state of the education system in Argentina, combining data from different sources, as each of them have their own strengths and weaknesses. For instance, school census data have the advantage of being direct reports from state education agencies but do not provide wide socio-economic information on students, and do not give an estimation of how many people are out of the system. Using the population Census data it is possible to fill in the gap, as non-attendance rates by age and gender are easily calculated. This information, however, is available every 10 years. There are also many contextual variables (such as household income) that are not collected during the interviews. Using the household survey it is possible to get that information on a current basis. Although it covers only main urban areas, it is a good approximation to the urban census data. With these data, it was also possible to construct a measure to identify children who are below the modal grade for their age.

Secondly, to closely explore the interrelations between quantitative educational outcomes and individual characteristics as well as school factors, exploiting the EEJ database. The research intends to uncover correlations among variables and in this sense, it is purely a descriptive paper to highlight associations rather than causal relations.

The next section will provide the readers with the general context of the education sector, and its origins. Section II.B describes the main stylised facts observed during recent decades using data from different sources, with special focus on identifying risk schooling zones for teenagers. Section III explores the new data set that allows us to characterise dissimilar paths in youth education. The second part of this section will present a multivariate analysis to identify the groups that are most likely to having access secondary school and complete it. Findings are discussed by constructing different student profiles. The last section summarises the findings.

II. THE EDUCATION SYSTEM

II.A) Background

The development of the educational system in Argentina has its origins in the National Constitution of 1853, in which the right to teach and learn was legally established.

The fourth president of the country, Domingo F. Sarmiento, set the guidelines for the modern system in the latter half of the nineteenth century, pushing through reforms that supported school expansion for all citizens.

During the administration of Julio Roca, as an outcome of the Pedagogical Congress, the Law 1420 of General Common Education was sanctioned on July 8th, 1884 establishing principles for primary schools. This law, a cornerstone in Argentine history, dictated public, compulsory, free, and secular education "for children between 6 and 14 yeas of age" (Law 1420, Section 1).

The provinces were responsible for the provision of primary schooling except in the capital and national territories where education was under the National Education Council´s responsability.

Differences in the educational performance among provinces sprang up, and so a new law was introduced in 1905 (Decibe and Canela, 2003). This law allowed the National Government to create primary schools in the provinces that requested them, extending the attributes of the National Council of Education beyond the sphere of the capital, colonies, and national territories.

While the main features of the system were being configured at that time, important achievements were reflected across the country. The literacy rate rose from 33 percent in 1869 to nearly 50 percent by the turn of the century.

The transformation process was prolonged over time, with an important administrative reform during 1978 and the transference of primary national schools to the provincial governments.

Following the patterns of educational policies in Latin American countries during the nineties, a new reform program was launched by the Federal Government, resulting in the following laws: the Education Decentralisation Law (1992), the Federal Education Law (1993), and the Higher Education Law (1995). These laws were partially drafted and discussed by diverse sectors of the society during the National Pedagogical Congress in 1984 and 1987.

Despite the fact that the Federal Education Law had been sanctioned early in the decade, the implementation began in 1998, and by 2003, only 18 of 24 provinces had carried out the reform completely. Another 4 provinces have reformed the system incompletely, while two provinces - Rio Negro and Neuquén- did not conduct a reform at all.

The reforms covered different areas: (i) the transfer of national responsibilities to the provinces for secondary and technical education, and teacher training institutions; (ii) the extension of mandatory education from 7 to 10 years; (iii) the curricular reform that establishes one year of pre-school, nine years of Basic Education (EGB) and three years of Polymodal; (iv) the administrative reform; and (v) the higher education reform.

During 2006, education was again a focus of public debate. The central authorities proposed the extension of the prescribed period of compulsory attendance (up to the end of secondary education) as well as the re-formulation of the actual educational system, in order to return to a structure similar to the previous one: initial education, primary (7 years of length), and secondary (5/6 years). A new educational law was passed at the end of that year.

II.B) Stylised facts[1]

Before advancing in the analysis of factors associated with different youth educational outcomes, it is useful to give an overview of basic indicators to briefly

[1] Except where explicitly highlighted, all tables and comments refer to the previous structure of education. For example, primary school population refers to children attending EGB (1st to 3rd grade

describe the evolution of the Argentine educational system, widely analysed elsewhere (Herrán, 2001; Giovagnoli and Kit 2004; Binstock and Cerruti, 2005; Kit, España and Labate, 2005).

It is important to highlight that although Argentina is a developing country, the educational sector ranks highly in comparison with other countries. The average years of schooling of the population aged 15 and over in 2000 were 8.8, significantly higher than the regional average of 5.9 years (Giovagnoli, Fizsbein Patrinos, 2004). Argentina also compares well with East and Central Europe and East Asia, where average educational attainment is 8.4 years and 7.6 years, respectively. (Barro and Lee 2000).

Enrolment Patterns

According to recent data, the total number of students enrolled in initial, primary and secondary education in 2004 scaled up to 9,931,029 (74% of the students are in the public sector), 526,456 teachers (77% in public sector) and 36,333 schools (27,625 are in public schools) [2].

The current figures result from an expansive demand for education during the last decades, with a higher percentage of young people enrolling in school, especially at the secondary level during 1991 – 2001. In fact, Table 1 indicates that the enrolment growth was 33 points higher than the population growth for young people aged 15 to 17.

EGB1, 4th to 6th grade of EGB2 and 7grade of the EGB3)-.Secondary level refers to people attending EGB3 8th grade or 9th grade and or Polimodal.

[2] Source: Dirección Nacional de Información y Evaluación de la Calidad Educativa. Relevamiento Anual 2004. Data on Corrientes province are from 1991. Students from Buenos Aires province account for 36.6% of total students in the country. The rest of the students are distributed in the other 23 provinces and in the city of Buenos Aires. Data refer to common education, that is, excluding 7% of total students who are in Artistic, Special and Adult Education.

Table 1. Population and Enrolment Growth 1880 -1991 -2001

	1980 – 1991 (1980 base 100)		1991 – 2001 (1991 base 100)	
Age groups	Population Growth	Enrolment Growth	Population Growth	Enrolment Growth
6 to 8 years old	117,9	124,5	106,1	107,6
9 to 11 years old	130,2	132,9	104,2	105,4
12 to 14 years old	139,5	144,8	100,7	108,7
15 to 17 years old	125,1	148,5	108,5	141,5

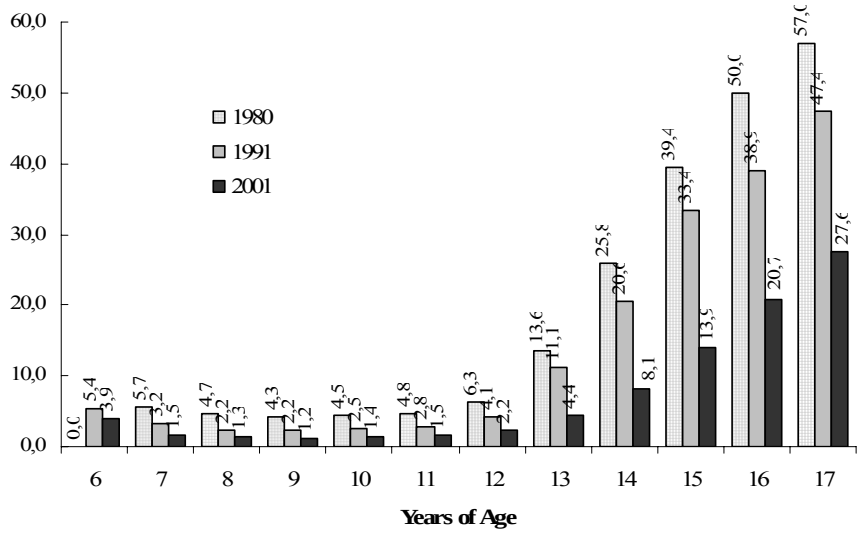
Source: Giovagnoli and Kit, 2005. Calculations based on National Population Census

As observed, the enrolment growth has remained higher than the population growth for all age groups. This occurred even during the 1980s, when population growth rates recorded higher figures than the following decade, suggesting that the educational system has proved responsive to the increasing demand. It was in the early 1980s that the massive transfer of primary schools from the national to the provincial government took place. What is worth noting is that enrolment rates have increased significantly since then.

Non-attendance Rates and Age-grade Distortion

The examination of non-attendance rates by the age of the child - from 6 to 17 years of age for the last three census: 1980, 1991 and 2001(see Figure 1) reveals that 39% of people aged 15 in 1980 were out of school, while data for 2001 shows that the non-attendance rate decreased to 14%.

Figure 1: Non-attendance rates- 6 to 17 years of age. Total country



Source: Kit and Scasso (2006) based on Censo Nacional de Población, Hogares y Viviendas, 1980, 1991, 2001

There has been, however, little change in "the trend" of non-attendance rates by age. That is, a common characteristic among 1980, 1991, and 2001 census is that the higher the school-age the higher the risk of teenagers being out of the system. For instance, in 1980 the proportion of people aged 14 who were out of school was twice that of those aged 13 (25.8% and 13.6% respectively). In 2001, 4.4% of the teenagers (13 years of age) did not attend formal school, while this percentage reached 8.1% for those who were 14 years of age and 14% for people aged 15. Even when the Federal Education Law explicitly states mandatory education until 15 years of age, it is clearly insufficient to ensure effective coverage. Furthermore, there are still significant differences between geographical areas, as seen in Table 2: the percentage of 6-17 year olds reporting to be out of school in 2001 is 10,3% higher in rural dispersed areas than the national average. These differences are also seen among provinces. In fact, figures in Table 1 in the Annex provide eloquent evidence that Santiago del Estero, Misiones, Tucumán, Chaco, Formosa and Corrientes are educationally disadvantaged compared with the rest of the country. In Santiago del Estero, for instance, 16% of young people aged 6-17 are out of the formal education system. In Santa Fe, by contrast, this figure is estimated to be at 8%. The situation is actually much worse if we look at 15-17 specific aged group. A striking 45% of

young people in Santiago are not attending schools, following by slightly smaller numbers in the case of Tucuman (40.7%), Misiones (39.1%) and Chaco (32.8%), showing that educational disadvantage of youth will continue to concentrate in these particular provinces, unless important changes are introduced.

Table 2. Non-attendace rates by geographical areas. Year 2001

Geographical Areas	Population (aged 6 - 17)	Teenagers Out of school	Non-attendace rates
Urbana (1)	7.114.174	423.746	6,0
Rural (2)	991.720	145.512	14,7
Grouped	314.691	28.292	9,0
Dispersed	677.029	117.220	17,3
Total	**8.105.894**	**569.258**	**7,0**

Source: Own calculation based on Census 2001

(1) Urban population is defined as people living in towns bigger than 2,000 inhabits

(2) Rural population is devided between "Grouped" - towns smaller than 2,000 and "Dispersed" those spread in the countryside

Differences in non-attendance rates may be also observed across the household income distribution. Census data does not provide a measure of income, thus, the Official Permanent Household Survey (EPH) - October wave - is used instead.

The survey covers only major urban areas. Although these areas do not exactly match the census' total of urban areas, they are a quite good approximation of total urban population of the country (compared urban figure in Table 2 with Table 3).

The construction of quintiles[3] incomes displayed in Table 3 is based on the adjusted household income to take into account the fact that food needs are different across age groups within a given household. In the adjustment, the adult equivalent official scale was applied. Following INDEC methodology, only households with complete information reported about income were included in the computation.

[3] Quantile 1 represents the poorest 20% of households.

As expected, the lower the quintiles, the higher the non-attendance rates for the children[4]. On average, these rates are worse for men than women. This pattern changes for the richest: the proportion of men outside the formal education system is lower than that of women in the quintiles 3, 4 and 5.

Table 3. Non-attendace and Attendace Rates with Overage by quintiles for men and women aged 6-17

AE Income	Non-attendace Rates			Attendance with Overage		
Quintiles	Total	Women	Men	Total	Women	Men
1	8,2%	7,9%	8,5%	35,8%	33,3%	38,4%
2	6,3%	5,3%	7,1%	29,0%	26,3%	31,7%
3	3,7%	4,0%	3,4%	23,5%	21,5%	25,6%
4	1,9%	2,4%	1,4%	18,0%	15,2%	20,6%
5	0,9%	0,9%	0,8%	12,3%	10,6%	13,9%
Total	5,1%	4,9%	5,2%	26,2%	23,9%	28,4%

*AE Income= Adult equivalent income. Total household income / total equivalent adults
Source: Own calcluations based on EPH - 2000 October Wave

Even for those who are going to school, the micro-data from the household survey reveals that almost one third of those attending are overage for their current school grade. Table 3, second panel to the right, shows that correlation is strong between age-grade distortion and income quintiles. In the lowest quintile, 36% of children are attending below their age group, while this figure is only 12% in the richest quintile. No matter which of the quintiles is considered, men perform worse than women, a result widely found in the literature for developing and developed countries. Table 2 in the annex shows these indicators by simple age, stressing the rapid increase in non-attendance rates from 15 years of age and upwards as well as the importance of the percentage of young people overage with their class.

Age-grade distortion may reflect a number of factors, including delayed primary school entry, grade repetition and/or schooling interruptions. Using school census data from the annual collection carried out by the National Ministry of Education since 1997, it is possible to evaluate trends in these basic indicators of repetition, inter-annual drop out and promotion rates by grade.

4 Sosa Escudero and Giovagnoli (2000) analysed demand for education in public and private sectors. Using survey data showed that only 9% of students in the poorest decile attend private schools

Repetition, Dropout and Completion Rates

As is clear from Table 3.A in the Annex, repetition is quite common at the begging of school (EGB1 and EGB2): around 9% of students repeated at least the first grade, with a stable percentage between 1997 and 2003. More importantly, the probability of repetition is decreasing across grades during primary school: the repetition rate is 10% for first grade and 4.3% for the six grade.

This last result points to the importance of exploring how early repetition rates are related to subsequent educational outcomes, an issue that will be analysed in more detail later in the paper .

Table 3.B (Annex) contains inter-annual drop out rates. The figures recorded for the first grades tend to be lower than those recorded for higher levels of education (as EGB3 and Polimodal). In fact, these rates show a steady rise from grades 8th onward, reaching 27% for the last year of Polimodal. This indicates that drop out is occurring mostly at secondary school. This picture is quite similar for different years, except that since 1999, inter-annual rates recorded in grade 8th are much lower than before. This may reflect in part the application of the new structure in education, allowing the system to retain pupils one year more than previously.

Finally, completion rates -as expected - are relatively low in the advanced grades. There is not much pattern across the years except for an improvement in the 8th grades since 1997/8. In 1997, completion rate in 8th grade was 76%, while in 2001 it reached a peak (80.3%). Most recent data show, however, that this trend is in reverse. The current completion rate for 8th grade is again closer to previous figures (76.7%). There is still a constant tendency of low completion rates in EGB3 and Polimodal, and in some cases, the situation is actually worse. Furthermore, looking at various source data to compare different birth cohorts since early in time, Binstok and Cerruti (2005) remark that the high levels of schooling reached in the last two decades have not been translated into equivalent rates of completion, thus the probability of dropout from secondary school did not vary.

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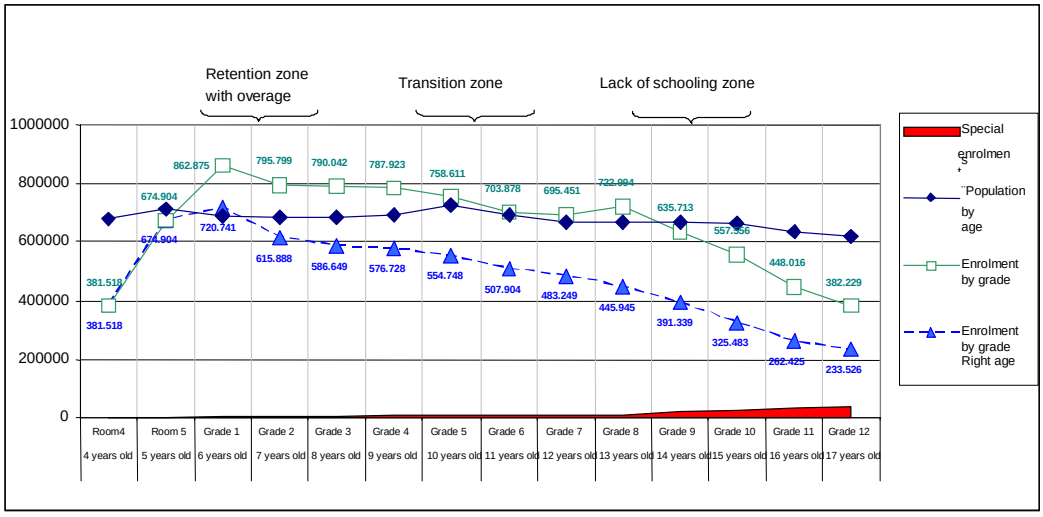
compare with about 50% from the richest decile.

The next figure draws together some issues already discussed, identifying key zones in schooling life (Kit et.al, 2005). It combines different information: (i) from census data - population by age – which is quite stable during the around 650.000 births, (ii) data from the education system: enrolment by grade and (iii) enrolment with the right age by grade. The red area captures special enrolments (such as adult schooling), to see whether those who drop out of schools may enter the adult educational system.

Figure 3. Enrolment and population by age. Year 2001. Total country.



Source: Kit España and Labate - Censo Población 2001 and Relevamiento Anual de Matrícula y Cargos, 2001

As is clear from Figure 3, attendance is fairly universal in first grade, with high coverage in the early schooling years, except for the case of children aged 4 who should be attending kindergarden - room 4 (salita de 4).

During the first grades of primary school, enrolment is higher than population up to 10 years of age, as students fail and repeat their first grades. As remarked by the authors, there is almost 19% of age-distortion.

Those who are aged 10 to 13 seem to stay in school, even when many children are attending behind according to their ages. There is, however, an abrupt decrease in enrolment from 14 years of age and onwards, defining Grade 9th to 12th as the most risky zone in terms of schooling.

The next section seeks to go beyond aggregate data, examining the situation of youth using a household survey dataset. The data will allow us to explore young people in their actual context as well as characterise their educational trajectories.

III. FAILURES IN SCHOOL PROGRESSION

III.A) The EEJ survey

Unlike much research on schooling, the EEJ survey enables tracing individual education histories from early in their life in a retrospective way.

Tracking these paths is of fundamental importance when education is understood as a cumulative process - past events have some lasting effect, although their value in explaining output may diminish over time (Hanushek, 1979, 1986). Furthermore, the empirical findings suggest that the differences of achievement in education among children from dissimilar family backgrounds emerge very early in the life-cycle (see Cameron and Heckman, 2001 and Carneiro and Heckman 2002,2003).

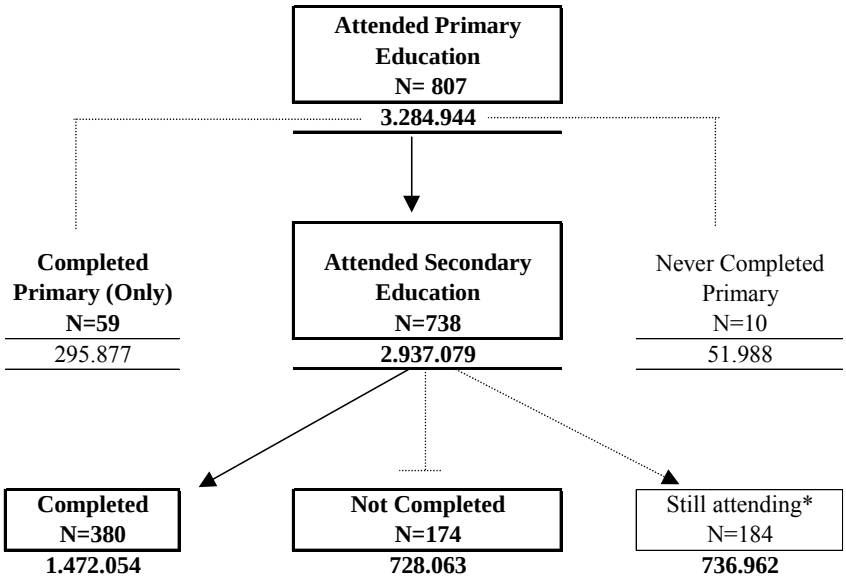
The EEJ survey includes a wide range of questions that allows us to follow student progress in education. It was carried out during 2005 by the National Institute of Statistics and Census – INDEC, jointly with CEDLAS[5]. A specific module to young people (15 to 30 years old) living in Greater Buenos Aires was introduced into the official current household survey (Encuesta Permanente de Hogares) with the aim of capturing educational paths as well as labor market experiences.

As it has been applied within the EPH, it encompasses other variables, including family background gathered through the official survey. Despite the lack of national coverage, the selected area (Greater Buenos Aires - GBA) represents an important part of whole population. In terms of the education system, according to figures provided by the Ministry of Education, GBA accounts for 30% of total students in the country (see: REDFIED Dirección Nacional de Información y Evaluación de la Calidad Educativa. Relevamiento Anual 2004).

Educational paths

The next figure depicts different educational paths captured by the survey. The whole sample reported having attended primary education, reflecting the improvements recalled in section II regarding the universal attendance to primary school.

Figure 4. Students´ Path for Individuals between 15 - 30 years of age in Greater Buenos Aires.



Source: Authour´s elaboration based on EPH - EEJ Survey 2005. Greater Buenos Aires

A very low proportion of the sample (1.6%) never finished primary school. Another 9% reported completing primary but never beginning secondary school. These two sub-groups together will be referred as "never attended", as their progress through school stopped before entering secondary school. As we will see in the next section, these two disadvantaged groups belong to the older cohorts. This is consistent with the finding described in the previous section.

The vast majority of the sample, however, attended secondary education conditional on having completed primary school. There are mainly three possible situations for the "attended secondary education" group: (i) individuals who completed secondary level, what this paper will refer to from now on as "completed", (ii) individuals who did not complete the level and dropped out before completion - "not completed" and (iii) a group of young students who are still attending.

For the purpose of characterising dissimilar paths, the next section compares these groups in several dimensions, giving special attention to the comparison among "completed", "not completed" and "never attended" groups.

[5] The survey was financed by IADB, as part of an Educate Girls Globally project.

III.B) Characterisation of dissimilar paths

The figures estimated using the EEJ survey in Table 4 by age groups seem consistent with the already mentioned fact that chances of attending secondary school increased significantly for younger cohorts[6].

Table 4. Educational outcomes of young people classified by age-groups (%)

Age groups	Completed	Not completed°	Still attending	Never attended
15-17	1.38	11.67	82.83*	4.11
18-24	55.45*	27.13	8.70	8.72
25-30	58.66*	23.44	2.26	15.64
Total	44.81*	22.16*	22.43*	10.59

° And is out of the educational system.

*Coefficient of variation less than 10%. The rest of the figures have a CV above 10%

While among the oldest people 16% have never attended secondary school, the next cohort (18-24) recorded only half of this value. There is, however, quite similar probabilities of non-completion between these two groups, suggesting no improvements regarding finishing secondary school. What is striking is that 12% of children in schooling age (15-17 years old) already drop out of secondary school. This figure may be underestimated, as it can be noted that 83% of 15-17 year olds are still attending, thus they had censored outcomes at the time the survey was collected.

When boys and girls are taken separately, girls show higher completion rates than boys, independently of age group. There is, however, a higher proportion of women who did not attend secondary school for the older cohorts. The opposite occurred for the youngest cohort, in which women seem to have higher attendance than men in the education system, indicating that in recent years females gain significantly relative to males in attendance schooling.

[6] All figures presented in this section are my own estimates using weights provided by INDEC, that take into account an adjustment for no response at strata level, a correction for aimed population who have not been found and an adjustment for demographic projection. All these estimates are reliable, but the precision may vary. It is indicated in each case when estimates have low precision –high coefficient of variations.

These results are in line with those reported by the Ministry of Education, using 1998 data from an educational survey (also applied by INDEC through the EPH). That survey covered most regions in the country.

- *Who are those following the risk-paths?*

The better performance of women, conditional on having attendance, is also apparent in Table 5, in which the majority (58%) of those who completed school are females.

If we focus our attention on the most groups at risk (never attended or not completed), on average, they report to have started working earlier than those who completed.

Table 5. Individual characteritics

Description	**Completed**	**Not completed**	**Never attended**
Males (%)	42,0	50,6	48,2
Average years at secondary shool entry	13	14	-
Worked at least once (%)	92,1	93,5	89,0
Average age of first job	18	16	14¨

¨ Coefficient of variation higher than 10%. The rest of the figures have a CV below 10%

The mean age of entry to secondary school for those who drop out is above the official age: one year over (14 versus 13 years for those who finally completed secondary).

- *Reason reported for leaving secondary school before the completion of the final year*

The most frequent answers given by drop out respondents are associated with a labor phenomenon: 52% consider it as the main reason for leaving school. Sidicaro and Tenti Fanfani (1998) using a survey applied in 1995 found similar results for GBA. Binstok and Cerruti (2005) do also remark this factor.

The poor academic performance appears to be the second main explicit factor, followed by pregnancy.

Table 6. Reason for not starting secondary school or leaving secondary before completion (%)

Description	Not completed	Never attended
Started worked	52,88*	37,8
Poor academic performance	15,9	24,9
Family issues	3,2	20,6
Became pregnant/a father	7,5	4,9
Financial problems/mobility costs	1,1	4,0
Other reasons (not codified)	19,5	6,1
Don´t know	0	1,7

*Coefficient of variation less than 10%. The rest of the figures have a CV above 10%

Among those who never started studying at secondary school, they point out mainly three issues: work, poor academic performance and family problems. Presumably, a poor academic performance can be understood as having failures during schooling. The next sub-section explores specifically the relationship between being a grade repeater and educational outcomes.

- *Failures during schooling*

As remarked in section II using administrative aggregate school data, repetition is not a rare phenomenon.

Our sample allows us to distinguish not only whether the student repeats or not, but also which grade, and if he/she has failed more than once during schooling. If we focus our attention on primary repetition, Table 7 shows that repetition rates are substantially higher in public than in private primary schools. Estimated repetition rate for the fourth grade in public schools, for instance, is more than five times higher than that for private schools (5.54 % versus 0.92%). Furthermore, according to the figures of average time of repetition, once the student repeated a grade during his/her schooling, there are higher chances to repeat again if he/she attended a public school. On the other hand, independently of the type of school, repetition happens more frequently during the first four grades[7].

[7] It is important to point out that we are looking at Buenos Aires province, which performs much better than any othr province in the country in education sector (among other sectors). There are provinces in which, according to administrative data, repetition rate is 5 times more than in Buenos Aires.

Table 7. Repetition at primary school grades by type of school
Whole sample

Grades	*Repetition Rates*		*Average time he/she repeated*	
	Public	Private	Public	Private
1	4.29	1.19	1.1	1
2	3.86	1.25	1.3	1
3	3.56	1.25	1	1
4	5.54	0.92	1.17	1
5	2.34	0.34	1.2	1
6	1.70	0.78	1.19	1
7	1.27	0.34	1.15	1

That repetition - especially during early grades- may affect subsequent educational outcomes, is an issue scarcely analysed in the existing literature (Haddad, 1979).

For developing countries, very little is known about either the causes or the educational effects of repetition (Gomes-Neto and Hanushek, 1994). In fact, to our knowledge, there is only one recent empirical study (Manacorda, 2005) that provides evidence of the causal effect of repetition on later educational outcomes in a developing country. Only two other papers- albeit for US - focus on estimating how well the same repeater children would have done had they been promoted (see Jacob and Lefgren, 2004; Eide and Showlater, 2001).

The scarcity of these kinds of studies is based on the difficulties that student latent school outcomes (i.e drop out) and the probability to repeat are likely to be simultaneously determinate. To deal with this problem, specific econometric techniques such as longitudinal data in which individuals are the unit of analysis or experimental designs are required, both quite rare, especially in developing countries.

As a first crude approximation to the issue, simple tabulations of our data are presented in Table 8. The results suggest that repeaters in primary schools are less likely to start secondary education (conditional on having completed primary) than non repeaters (64 % and 95%, respectively). These results are driven for the outcomes in public primary schools, as chances of starting secondary school is estimated in 94% for non-repeaters, while those who repeated at least once during primary have only 64% of probability of staring the next level of formal education.

Furthermore, even for those who started secondary school, the chance of completion is much lower for repeaters (39%) than non repeaters (70%).

Table 8. Average outcomes for primary repeaters and non repeters by type of school

Starting secondary school (1)	*All*	*Public*	*Private*
% of repeters (during primary) who started secondary school	0.64	0.62	0.90
% of non-repeters (during primary) who started secondary school	0.95	0.94	0.99
Completing secondary school (2)	*All*	*Public*	*Private*
% of repeters (during primary) who completed secondary school	0.39	0.38	0.52
% of non-repeters (during primary) who completed secondary school	0.70	0.60	0.91

(1) Whole sample excluding those who never finished primary

(2) Sample includes those who completed and those who drop out secondary school

Again, when these probabilities are computed separately for students who attended public primary schools versus those from private schools, the latter group always has much better outcomes.

These results must be taken with caution because unobservable factors could be affecting both (outcomes and the likelihood of repetition). Furthermore, these results are not controlled by other observable factors (such as parents' education) that may also affect the outcome. The later issue will be addressed in section III.

- *Youth perceptions on parents' educational preferences*

One of the unobservable factors which is quite difficult to measure is related to the parental involvement with children's education. We intended to get an idea of the issue, by directly asking young people in the survey some questions about the perceptions they have concerning their parents' educational preferences and support[8].

Table 9 contains unadjusted probabilities of starting secondary school (first panel), and probabilities of not completing secondary (second panel) for categories of youth

[8] The table uses the question number 27 for those never attended secondary school and number 59 for the rest.

perceptions on parental education support. The chance of starting secondary education for those people who feel their parents were very concerned about their education is estimated to be 93% , while the figure drops to 78% for those who do not perceive that their parents worried about their schooling.

Looking at the second panel, the probability of completion is significantly higher for those who feel supported than for people who perceive that their parents do not worry about their education (73% versus 16%).

Table 9. Youth perceptions on parental education support by gender

	All	*Men*	*Women*
Starting secondary school (1)			
A lot	0.93	0.91	0.94
More or less	0.79	0.86	0.71
Do not worried about	0.78	0.85	0.74
	All	*Men*	*Women*
Completing secondary school (2)			
A lot	0.73	0.76	0.70
More or less	0.34	0.24	0.42
Do not worried about	0.16	0.32	0

(1) Whole sample excluding those who never finished primary

(2) Sample includes those who completed and those who drop out secondary school

In both cases, the differences in probabilities among perception groups are lower in men than in women, suggesting a more diverse treatment from parents to their children among women than men.

- *Intergenerational transmission of education*

Tables 10 and 11 present selected descriptive statistics on the intergenerational transmission of education.

It is worth noting that the higher the parental education, the better the educational outcome of youth. For example, when mothers have a university level, 94.3% of their young people complete secondary. This proportion decreases to 45.6 % for children whose mothers have just primary schooling completed. On the other hand, one third of young people whose mothers have some primary education, never attended

secondary school, while 41.6% did not complete this level and 27.7 never received high level education[9].

Table 10. Educational Outcomes and Mother´s education

	Educational outcomes for young people		
Mother´s education	*Completed*	*Not Completed*	*Never Attended*
Prim Incom or less	30.73	41.60	27.67
Prim Compl	45.59*	33.76	20.65
Sec Incomp	61.27	33.40	5.33
Sec Compl	75.98	22.45	1.57
Univ Incomp or completed	94.32*	5.68	0.00

*Coefficient variation less than 10%. The rest of the figures have an CV above 10%

The Table 11 is a transition matrix, in which we estimated the probability that an individual completes a certain educational level given the educational attainment of his/her mother (it excludes those individuals who are still attending secondary school).

Table 11. Mother Schooling and Child´s Schooling (transition matrix)

Mother /*Child*	*Primary Incom*	*Primary Completed*	*Secondary Incomp*	*Secondary Completed*	*Terciary/Univ Incomp*	*Univ Completed*
None	35.46	10.68	26.50	13.22	14.13	0.00
Primary Incom	5.09	20.87	42.52	20.18	9.12	2.22
Primary	2.14	18.63	32.61	21.46	18.36	6.79
Secondary	0.00	5.42	32.28	26.48	27.22	8.60
Secondary	0.00	1.58	22.61	18.61	52.07	5.12
Terciary/Univ	0.00	0.00	4.19	15.24	68.54	12.04
Univ Completed	0.00	0.00	6.45	7.54	62.54	23.47

These figures reflect one of the facts marked in the previous section: the increase in educational attainment from the parents to the next generation. All of the children of mothers without education have at least incomplete primary. There is, however, an intergenerational persistence in educational status. Around 70% of children of mothers with an incomplete primary education or less, never finish secondary school. Conversely, 0% of children of mothers with a university completed have less than completed primary school. This suggests that improving educational attainment of

[9] Similar qualitative conclusions arise when the father's education is used. As there are, however, more missing data in father´s education variable than in the case of mother education, the latter was chosen.

the current generation has a positive effect beyond its own welfare, extending the chance of improvement of their future children.

Similarly, the analysis of the average years of schooling completed for young people shows again that the higher the educational level completed by their mothers, the greater the average years of schooling of the child, revealing the intergenerational persistence in education opportunities (see Table 4 in the Annex).

While descriptive statistics on educational outcomes presented in this section are very informative, there are well known limits to what can be inferred simply from cross tabulations. The next section uses multivariate analysis to estimate adjusted probabilities of starting secondary education as well as probabilities of completion schooling, simultaneously controlling for a widely range of factors that may be correlated with these probabilities

III.C) The Econometric Model and Empirical Results

This section of the paper estimates the relationship of educational outcomes to individual and school factors, controlling for a number of other variables. We will analyse, for example, the effect of early failure on the probability of starting and completing secondary education.

Yet these statistical models can only suggest - not prove - causal connections. As Rumberger, R. (2001) remarks, "it is better to think of these factors as predictive of dropping out (completion) or increasing the risk of dropping (but not that these factors cause dropout) " (ibidem page 5)

The Econometric Model

Since the dependent variables of interest are binary in nature, the econometric model is a simple limited dependent variables model, where the individual and school characteristics are associated with the probability that a given individual starts secondary school or conditional on it, completes that educational level.

Let y represent any given binary outcome for the dependent variables of interest, and X represent the vector of measures of some characteristics. Then we presume that the conditional expectation of y varies with the properties of X:

$$E(y|X) = Prob(y=1|X) = F(X) \quad (1)$$

There are many options for estimating the effect of X on y. We have chosen to use logit regression, where F(X) is assumed to be the standard logistic function. In this case, one can also easily calculate marginal effects for a continuously valued explanatory variable, Xk:

$$\partial P(y=1|X)/\partial X_k = \beta_k f(X\beta) \quad (2)$$

where f(.)=∂F(.)/∂Xβ.

In the case of discrete explanatory variables, the reported "marginal" effect is actually its average effect:

$$Prob(y=1|X_k=1) - Prob(y=1|X_k=0) = F(X\beta|\ X_k=1) - F(X\beta|\ X_k=0) \quad (3)$$

Note that because of the non-linearity of the logistic function, these are more complicated calculations than would seem. In particular, both the marginal and average effects in the logit framework depend on the values of the X variables.

The y variables examined in this paper are: (a) a measure for starting secondary school – which equals one if the individual started secondary school (given that he/she has finished primary) and equals zero otherwise; (b) a measure for completing secondary school (given that he/she has started it) which equals 1 whether the individual has finished school, and equals 0 otherwise (that is reported being a drop out) [10]. For the former outcome (a) the whole sample of young people is used in the estimation (excluding 10 observations which are those individuals who never finished primary school and are not currently receiving any formal education). For the examination of the second outcome (b), a sub-sample is used including all people who started secondary, completed or not completed (independently of the age)[11].

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[10] In the survey, we also asked when they dropped out: 53% dropped out before 2000, while 25% did it between 2001 and 2003, suggesting permanent drop out behaviour.

[11] Including those who are still enrolled in school poses the problem of unknown final attainment. If these students were treated as students who will complete secondary, it would lead to producing inconsistent parameter estimates because of the inflation of the number of non-drop out in the sample. Only in the extreme (unlikely) case that all still attending students would finish secondary school

X contains variables on failure (such as having repeated during primary – 1st to 3rd grades or 4th to 7th) or during secondary school, along with important individual and school-level control variables, fully described in the Annex - Part II.

Some characteristics, such as having parents with high education level, are associated with a decreased risk of not starting (or not completing) secondary school. Conversely, other characteristics, like "having textbooks while studying" are factors that promote successful development and buffer the effects of risk factors (Jessor 1993).

An advantage of this dataset, rarely found in other empirical studies, is that most school characteristics and socio-economic conditions of individuals at the time that schooling choices were made are known.

For instance, we know variables from the supply side: whether textbooks during their studies (books) or a specific scholarship during secondary school (scholarship) were available, if the individuals had a private teacher during primary schooling (private teach) or whether he/she started working before 13 years of age (worked_before13); we also have information about the same basic features of their primary and secondary school, such as whether it is private (religious or not religious/public); non-extended or extended schools (sch_simple); and whether schools were located in Conurbano or in the City of Buenos Aires (sch_conurbano)[12].

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would the "full-sample" logit yield consistent parameter estimates. In terms of econometric structure, the problem is similar to that which occurs with a mis-classified binary dependent variable. See discussion by Hausman, Abrevaya and Scott-Morton (1998). There are, however, other costs when we exclude this group. One alternative estimation procedure to accommodate this kind of data is to fit a model that takes into account both uncensored and censored observation, as for instance, a censored-normal regression. That model was also estimated –see Annex - Table 6 - using years of schooling (instead of binary outcomes) for the whole sample in which censoring values may vary from observation to observation. The same qualitative results were obtained than in the case of using our restricted sample.

[12] In Argentina, people can attend school both in the morning and in the afternoon (extended school) or just in the morning or just in the afternoon (simple schools). Information about the type of school regarding single sex or co-educational schools were also available- However, the effect proved to be insignificant in any of the models. It is important to point out that 96% of young people reported to have gone to a mixed secondary school. Additionally , it is probably that the effect is already taken account of in the cohort variables, as most single secondary schools are not existing now, but they did a couple of decades ago.

We asked questions related to the demand side aspect, such as parents' education, even when individuals are not presently living with their parents. Different binary variables with the maximum education of their parents were constructed (adu_max1_p, adu_max2_p, adu_max3_p). In order to counteract the missing data, a dummy variable for those parents with unknown education was constructed. As a sensitivity check, the estimation was redone after deleting those observations where edu_max0_p= 1. The results were qualitatively the same as those reported.

Finally, cohort effects using dummy variables for various age groups are also included in the regressions, as the sample involves people who, for example, could have started secondary school during the eighties while others have done so very recently. Thus, these variables could presumably be capturing the effects of changes in the macroeconomic environment as well as the effect of increased supply of schooling over time. For instance, it could be the case that younger cohorts are achieving significantly more chances to start secondary school than older ones due to improvements in the supply of schooling.

The empirical results

- *Probabilities of starting secondary school*

Table 12 summarises the results for the first outcome under analysis: the adjusted probability of starting secondary school. As observed, this probability for the average person in our sample is very high: 98%.

The direction of the estimated coefficients for different factors is what we could expect. The fourth column shows the results translated into marginal probabilities evaluated at the means of the separate variables. Specifically, the relationship between chances of attending secondary education and failures during primary schooling (in comparison with those who never failed) is negative, holding the other variables constant. Note that the result for repetition at least once during 4th to 7th year is in addition to any repetition effect that would arise if a student who suffered from 4th to 7th also suffered from 1st to 3rd grade. The effects are cumulative, so a student suffering both would be predicted to be 20% less likely to attend secondary school than one who had neither of these repetitions.

Those young people whose parents have low education (versus those with parents with high education) are less likely to attend school, even controlling for school factors. This may suggest that the lasting effect of low education levels is seen from the intergenerational nature of the transmission of human capital from parents to children; no attendance for this generation hurts not just this generation but also future generations (Harbison and Hanushek, 1992).

ble 12.Logit model of Starting Secondary School

Variables	Coefficient	z statitics	Marginal probability*	Mean
repetition1_3	-2,31	-5,99	-0,12	0,08
repetition4_7	-1,85	-4,01	-0,08	0,06
male	0,01	0,02	0,00	0,46
edu_max0_p	-2,44	-2,90	-0,15	0,03
edu_max1_p	-2,31	-3,06	-0,12	0,09
edu_max2_p	-1,95	-3,10	-0,04	0,46
books	0,55	1,50	0,01	0,80
worked_before13	-1,04	-2,69	-0,03	0,12
private_teach	0,14	0,28	0,00	0,14
shc_public	-1,49	-1,87	-0,02	0,72
sch_simple	0,05	0,07	0,00	0,86
sch_conurbano	-0,37	-0,71	-0,01	0,76
xcohort2	-1,19	-2,42	-0,03	0,30
xcohort3	-1,60	-3,61	-0,04	0,36
_cons	7,34	5,99		
Sample size	797			
Mean probability	0,981			
Log pseudolikelihood=138,96				
Wald chi2(18) = 133,24				

Note: Huber/White/sandwich estimator of variance was used.

*Estimated marginal probabilities are calculated at means of variables and holding constant other factos contained in the logit equation of starting secondary schoo. For discrete, marginal probability is the change of dummy variable from 0 to 1

It is worth noting that gender does not seem to have an important role in the probability of attendance, especially once cohort effects are included as control variables. The coefficient for “textbook availability” even when its sign shows a positive effect, seems not to be significant in explaining the probability of starting secondary school. The same occurs with “having a private support during primary schooling”. Variables that characterise primary schools (public versus private; simple versus extended education, or the area where the schools are located) do not explain

differences on access to secondary education, controlling for repetition and other factors.

Taken as a whole, these results are consistent with the vast literature on the subject of the economics of education, which shows very strong family background effects on educational achievement, and less strong effects of school variables. In fact, that discussion started with the Coleman report for US schools, an extraordinarily influential study in the policy and academic circles, which assessed the factors behind student achievement.

Not surprisingly, for young people who started working before 13 years of age, the probability of continuing at secondary level is lower than for those who did not have a job during their childhood. This relationship, however, could be spurious, due to the possible endogeneity in the working variable.

Finally, older cohorts, as expected, are significantly less likely to start secondary school compared to the youngest cohort, even controlling for specific individual and school characteristics.

- *Probabilities of Secondary School Completion*

In this sub-section, we analyse the relationship between probabilities of secondary school completion and individual and schools factors. The regression results are reported in Table 13.

As in the case of chances of starting secondary school, probabilities of completion are directly related to the level of parents' education. This may reflect parental views on the importance of schooling. The strong link between both suggests a long term effect of improved education.

Regarding variables associated with failures during school years (repetition_pri and repetition_sec), they seem to have a strong correlation with completion probabilities, even controlling for many observed factors. Given the data at hand, it is not possible to evaluate whether or not repetition works as a strategy for improving learning and completion. That is, in the case of repeaters, we cannot say much about what would have happened with completions if the repeaters had been promoted. Using

instrumental variables, it could be possible to address the real effect of repetition on completion. The instrument gives variation in repetition variable that is exogenous to any unobservable factors that are correlated with both repetition and educational outcome. This issue will be addressed in a future research.

Table 13. Logit model of Completion Secondary School

Variables	Coefficient	z statitics	Marginal probability	Mean
repetition_pri	-1,006	-2,810	-0,215	0,110
repetition_sec	-1,137	-4,440	-0,231	0,269
male	-0,477	-2,030	-0,088	0,446
edu_max0_p	-1,363	-1,660	-0,311	0,016
edu_max1_p	-1,182	-2,830	-0,261	0,074
edu_max2_p	-0,989	-3,890	-0,185	0,437
books	0,788	2,720	0,160	0,814
worked_before13	-0,804	-2,180	-0,169	0,088
schoolarship	-0,116	-0,300	-0,022	0,108
sch_same	-0,470	-1,640	-0,079	0,807
sch_priv_rel	0,931	2,250	0,143	0,177
sch_priv_nonrel	0,800	1,950	0,124	0,152
sch_languages	0,712	1,880	0,114	0,171
sch_simple	0,030	0,080	0,005	0,823
sch_conurbano	-0,550	-2,150	-0,094	0,704
shc_public	-0,712	-2,220	-0,121	0,686
xcohort2	0,562	1,950	0,099	0,388
xcohort3	0,978	3,200	0,172	0,440
Constant	1,942	3,140		
Sample size	554			
Mean probability	0,760			
Log pseudolikelihood=	-254,33			
Wald chi2(18) =	120			

Note: Huber/White/sandwich estimator of variance was

Males are significantly less likely to complete secondary school than women, holding other factors constant- including type of secondary and primary school as well as cohort effects. Interestingly, coefficients associated with cohorts effects show that for older cohorts, chances to complete secondary are higher than for the youngest cohort (base category). In fact, those who were born between 1975 and 1980 (presumably entering secondary school by the end of the eighties) are significantly more likely to finish successfully than those who were born between 1986 and 1990 (starting secondary by the end of nineties). These results may reflect different

macroeconomic conditions that could have affected school-work decisions among young people. It could be the case, however, that results reflect sample selection bias (because those who are still attending secondary schooling are excluded from the estimation). As a crude approximation to this issue, Table 6 in the Annex shows censored normal regression results using the whole sample (including as censored observations those who are still attending), and years of schooling as a dependent variable. As can be seen, results are consistent with the hypothesis that older cohorts had better schooling outcomes.

Young people that started working before 13 years of age are less likely to complete his/her education than those who never worked before that age[13]. Not completion – that is being out of school – may also negatively affect other aspects of their own lives or of society as a whole. As remarked by Wolfe (1995) quoting Spiegelman (1968), time spent in school appeared to be directly and negatively related to crime; that is, adolescents involved with schooling had a lower probability of committing a crime.

Contrary to the findings related to access to secondary school, textbooks availability seems to have a significant and positive effect on student probabilities of completion. Then, those who declared to have had books to study have 16% more chances of finishing school than those who reported a lack of books during schooling. This result is neither new nor surprising. Indeed, the empirical literature for high school, using data sets from a variety of countries, points out the result. Textbooks availability could also reflect parents' educational preferences and support. If this is the underlying cause, different policies can be applied to actively involve parents with their daughter/ sons' education.

Completion probabilities do not appear to be significantly different for a student who received a scholarship during secondary schooling in comparison with a student who never had a scholarship. This does not mean scholarships do not have any effect on student educational outcomes, but instead that controlling for socio-economic and

[13] Same caveats on endogeneity problems described in the previous subsection applied for this case.

schools factors, the effect is not statistically different between a young person who has a scholarship and a person who did not receive it.

Regarding school characteristics, there are some systematic higher probabilities of completion for students who attended private secondary school, holding constant other factors such as type of primary school attended. In particular, young people who went to a religious private school are 14% more likely to finish secondary than students who went to a public institution, controlling for changing schools during secondary. The exact reason for this is unclear. It could reflect better strategies in private schools for retaining students, or it could just be that parents with higher preferences for their child's schooling decide to send their children to private schools. What is striking is that the effect appears to be significantly different from zero even when we controlled for type of primary school and parental education.

The rest of the parameters estimated have the expected signs, except for those who attended simple school (who seem to be more likely to finish than those attending a full time school). The result, however, is not significantly different from zero at the 10 percent level.

- *Profiles: probabilities of different students*

In this section, estimated coefficients of the previous model are used to predict probabilities of completion for students with different backgrounds.

The first column of Table 14 shows variables that are changed one at a time in order to construct different students profiles and compute their probabilities.

A young individual who has a low-risk profile is described as a person whose parents have at least completed secondary education, has the textbooks to study and did not repeat during primary school. The rest of the variables are hold at their mean values. The probability of completion for this person is in fact greater than the average: 87.5%, with a quite narrow confidence interval.

Table 14. Preditions of the completion secondary school probabilities for different profiles

Variables				
repetition_pri	No	Yes	Yes	Yes
books	Yes	Yes	No	No
edu_max2_p	No	No	No	Yes
edu_max3_p	Yes	Yes	Yes	No
Pr(y=1|x)	0.875	0.720	0.539	0.303
Confidence Intervals	[0.831,0.92]	[0.57, 0.87]	[0.31,0.76]	[0.12,0.48]

Note: Confidence intervals by delta method

There is, however, 15% less probability of completion for a teenager with similar characteristics except that s/he had at least one failure during primary.

Adding the effect of not having textbooks during secondary schooling, the chance of completion is reduced to 54%. There is, instead, only 30% probability to complete secondary for young people with no textbooks, failures during their primary school, and parents with middle education.

It is important to bear in mind that all results are a first approximation to the issue of determinants to access and complete secondary, and they are subjected to some caveats. Because of endogeneity issues discussed before, we cannot really argue that teenagers who had not repeated during primary would have finished secondary school. Related to the first issue, it might be the case that there is a third unobservable variable – such as teacher motivation or detailed pedagogical strategies in some schools –affecting both: repetition and chances of completing secondary level education and resulting in a biased estimate of the coefficients.

IV. CONCLUDING COMMENTS

The examination of basic indicators on access to education using census data shows that the country has made great progress toward increasing enrolments during the eighties, which was a time of increasing population growth. Since then, enrolment rates have been higher than population rates, with the former being 33 points above than the latter for teenagers aged 15-17.

There are, however, still significant differences between geographical areas within the country. Santiago del Estero, Misiones, Tucumán, Chaco, Formosa and

Corrientes are clearly educationally disadvantaged. On the other hand, the percentage of 6-17 year olds reporting to be out of school in 2001 is 10,3% higher in rural dispersed areas than the national average (17.3% versus 7%, respectively).

Even within urban areas, the average non-attendance rate hides significant differences among household income quintiles. While less than 1% of young people in the richest quintile are not going to school, the figure climbs to 8.2% for those in the poorest quintile.

Beyond the expansion of schooling, the research findings reveal that for those who are in school, especially in first grades, around 20% are attending with an age-grade distortion. Again, significant differences are observed among income quintiles (12.3% for the richest quintile, versus 35.8% for the poorest).

Even with failures, what matters is whether or not the student completes its schooling. The official figures collected in the schools by the Ministry of Education provide evidence of small improvements on the completion rates during the last ten years. Despite rates that seem to show a slight increase after the application of the new Federal Law, the trend did not hold through time. In fact, the most recent data show that only 76.8% of the students completed the mandatory education period.

Using the EEJ survey, we were able to have a first crude approximation to the issue. According to young people's perceptions, their parents´ educational preferences and support constitute an important positive factor to school completion. In fact, when unconditional probabilities of completion were estimated, it was seen that chances of completion for students with parents´ support were almost 4 times higher than those students who felt their parents did not worry about their education. Parents´ preferences are intrinsically linked with their own education. Even when we observed an increase in educational attainment from the parents to the next generation, the transition matrix showed that there is an intergenerational persistence in educational success, suggesting a long term effect of improved education. Figures give evidence that around 70% of children of mothers with an incomplete primary education or less, never finish secondary school.

It is also important to highlight that early failures are closely linked with future educational outcomes, and could be identified as a negative risk factor. Noticeable differences on completion secondary schools were estimated between those who attended public schools and repeated at least once during their primary education.

ANNEX

Part 1: Tables

- *Data from Census*

Table 1. Non-attendance rates by provinces and age groups

Provinces	Total	6 a 11	12 a 14	15 a 17
Ciudad de Buenos Aires	5,2	1,0	2,7	15,0
Buenos Aires	6,4	1,4	3,4	20,6
24 partidos del Gran Buenos	6,4	1,6	3,4	20,1
Resto de Buenos Aires	6,5	1,0	3,4	21,4
Catamarca	7,1	1,4	4,7	22,8
Córdoba	9,6	1,0	8,1	29,5
Corrientes	11,8	3,0	11,0	33,6
Chaco	13,9	4,0	13,2	38,2
Chubut	6,0	0,8	3,4	19,9
Entre Ríos	9,7	1,3	7,7	30,2
Formosa	10,6	2,5	9,3	32,2
Jujuy	7,3	1,3	6,0	21,8
La Pampa	7,9	1,1	5,0	25,8
La Rioja	8,4	1,8	6,7	26,9
Mendoza	8,9	1,2	6,4	28,7
Misiones	15,4	5,1	16,3	39,1
Neuquén	7,0	0,9	4,9	23,3
Río Negro	6,9	0,8	4,6	22,7
Salta	8,6	2,1	6,8	25,6
San Juan	9,2	1,8	7,1	27,9
San Luis	8,5	1,9	6,7	26,6
Santa Cruz	3,5	0,5	1,7	13,1
Santa Fe	8,3	1,1	5,0	26,5
Santiago del Estero	16,1	3,6	16,7	44,9
Tierra del Fuego	2,5	0,3	1,2	10,0
Tucumán	14,1	2,4	14,4	40,7

Source: INDEC. Dirección Nacional de Estadísticas Sociales y de Población. Dirección de Estadísticas Sectoriales based on special tabulations from the Census 2001. See INDEC pages for details.

- *Data from Permanent Household Survey (EPH)*

Table 2. Non-attendace ratesand Attendace Rates with Overage. Urban Areas For Men and Women aged 6 to 17

	Non-attendace Rates			Attendance with Overage		
Age	**Total**	**Women**	**Men**	**Total**	**Women**	**Men**
6	1,0%	0,6%	1,4%	0,2%	0,1%	0,2%
7	0,7%	0,9%	0,4%	10,4%	9,2%	11,5%
8	0,6%	0,3%	1,0%	15,2%	15,3%	15,2%
9	0,3%	0,3%	0,4%	17,4%	15,7%	19,2%
10	1,1%	1,0%	1,2%	20,7%	19,0%	22,5%
11	0,8%	1,1%	0,6%	23,9%	22,6%	25,1%
12	1,4%	1,4%	1,5%	31,9%	30,2%	33,6%
13	2,0%	1,9%	2,1%	35,3%	33,8%	36,8%
14	4,6%	5,1%	4,2%	35,4%	31,3%	39,1%
15	8,3%	8,2%	8,4%	44,0%	38,7%	48,8%
16	16,8%	15,8%	17,8%	45,9%	40,9%	51,0%
17	24,9%	22,7%	27,3%	44,3%	39,6%	49,6%
Total	5,1%	4,9%	5,3%	26,2%	24,0%	28,3%

Source: Own calcluations based on EPH - 2000 October Wave

- *Data from REDIFIED*

Table 3.A. Repetition rates

Levels	***Years***						
EGB 1y2	*2003*	*2002*	*2001*	*2000*	*1999*	*1998*	*1997*
1°	9,97	9,95	9,94	10,38	9,93	9,51	9,00
2°	6,98	7,05	7,05	7,25	7,06	6,76	6,76
3°	6,19	6,17	6,15	6,38	6,10	6,26	5,64
4°	5,88	5,53	5,20	5,56	5,23	5,02	4,55
5°	5,12	4,70	4,30	4,72	4,61	4,20	3,77
6°	4,31	3,82	3,60	3,87	3,78	3,44	2,97
EGB 3							
7°	6,63	5,70	5,07	5,14	4,41	3,48	2,64
8°	11,76	10,35	9,70	10,81	10,69	11,42	11,63
9°	9,80	8,85	8,01	9,26	9,51	9,87	12,11
Polimodal							
1°	10,29	8,42	7,24	8,23	8,09	8,95	9,51
2°	7,44	6,40	5,31	5,73	3,95	4,76	4,86
3°	1,03	0,55	0,78	0,83	0,99	0,95	1,06

Source: Based on data from Red Federal de Información Educativa. Ministry of Education.

Table 3.B. Interannual dropout

Levels	***Years***						
EGB 1y2	*2003*	*2002*	*2001*	*2000*	*1999*	*1998*	*1997*
1°	2,57	3,12	3,18	2,51	2,48	2,34	2,42
2°	0,74	1,31	1,25	1,12	1,18	1,27	1,47
3°	0,86	1,36	1,35	1,15	1,29	1,24	1,32
4°	1,33	1,79	1,73	1,59	1,59	1,56	1,76
5°	1,75	2,21	2,11	2,02	2,06	2,11	2,41
6°	3,67	3,31	3,61	5,46	3,34	3,06	3,65
EGB 3							
7°	2,14	1,64	1,76	0,31	-0,94	-2,51	-1,91
8°	10,47	9,87	10,00	10,03	10,34	12,23	11,58
9°	13,39	11,31	11,86	14,88	14,13	13,05	19,81
Polimodal							
1°	17,51	14,18	12,24	12,59	11,06	9,66	8,65
2°	13,74	11,66	9,62	9,94	7,53	8,36	8,72
3°	27,19	22,29	22,11	33,94	24,85	24,66	25,53

Source: Based on data from Red Federal de Información Educativa. Ministry of Education.

Table 3.C. Promotion rates

Levels	***Years***						
EGB 1y2	*2003*	*2002*	*2001*	*2000*	*1999*	*1998*	*1997*
1°	87,46	86,92	86,88	87,11	87,59	88,15	88,57
2°	92,28	91,64	91,71	91,62	91,76	91,97	91,77
3°	92,95	92,47	92,50	92,46	92,61	92,50	93,04
4°	92,79	92,68	93,07	92,85	93,19	93,42	93,69
5°	93,13	93,08	93,60	93,26	93,33	93,69	93,83
6°	92,02	92,87	92,79	90,66	92,88	93,50	93,38
EGB 3							
7°	91,23	92,66	93,17	94,55	96,52	99,02	99,27
8°	77,76	79,77	80,30	79,16	78,97	76,35	76,79
9°	76,81	79,84	80,13	75,86	76,35	77,08	68,08
Polimodal							
1°	72,19	77,40	80,51	79,18	80,86	81,39	81,84
2°	78,81	81,95	85,07	84,33	88,52	86,88	86,43
3°	71,78	77,17	77,11	65,23	74,16	74,39	73,40

Source: Based on data from Red Federal de Información Educativa. Ministry of Education.

Table 4. Years of Schooling for Young People and Mother´s

Mother´s education	Years of schooling°
Prim Incom or less	9,95
Prim Compl	11,11
Sec Incomp	12,11
Sec Compl	12,81
Univ Incomp or completed	14,14

° Whole sample excludiing still attending group

*Coefficient variation less than 10%. The rest of the figures have an CV above 10%

Part 2: Variable Definitions and Descrpitve Statistics

This section contains description on the variables created to run the models, providing their mean values, and where appropriate, standard deviations. All these variables come directly from the EJJ survey´s data sets.

Variables Used in the Logit Model - Start Secondary School

Variable	Definitions	Means
start_sec(Y)	1 if started secondary education (conditional on having finished primary)	0,926
repetition_no*	1 if never repeated during primary school	0,853
repetition1_3	1 if repeated at least once between 1-3 grades in primary school	0,083
repetition4_7	1 if repeated at least once in any grades from 4 to 7 in primary school	0,064
male	1 if male	0,464
edu_max0_p	1 if missing data on parents´s education	0,026
edu_max1_p	1 if max education of parents is incompleted primary or less	0,092
edu_max2_p	1 if max education of parents is completed primary or incompleted secondary	0,462
edu_max3_p*	1 if max education of parents is completed secondary or more	0,420
books	1 if books to study were available at home	0,801
worked_before13	1 if he/she started working before 13 years of age	0,115
private_teach	1 if he/she had private teacher during primary school	0,136
shc_public	1 if primary school is public	0,719
sch_simple	1 if primary school is during morning or aftenroon but not both	0,859
sch_conurbano	1 if primary school is located in Conurbano	0,759
xcohort1*	1 if he/she was born between 1986 and 1990	0,344
xcohort2	1 if he/she was born between 1981 and 1985	0,301
xcohort3	1 if he/she was born between 1975 and 1980	0,355
N° Obs	Whole sample excluding those who never finished primary school	797

*Base categories

Variables Used in the Logit Model - Secondary School Completion

Variable	Definitions	Means
completion (Y)	1 if completed secondary education	0,686
repetition_primary	1 if repeated at least once during primary school	0,110
repetition_no*	1 if never repeated during primary school	0,890
repetition1_3	1 if repeated at least once between 1-3 grades in primary school	0,056
repetition4_7	1 if repeated at least once in any grades from 4 to 7 in primary school	0,052
repetition_sec	1 if repeated at least once during secondary school	0,268
male	1 if male	0,446
edu_max0_p	1 if missing data on parents´s education	0,016
edu_max1_p	1 if max education of parents is incompleted primary or less	0,074
edu_max2_p	1 if max education of parents is completed primary or incompleted secondá	0,437
edu_max3_p*	1 if max education of parents is completed secondary or more	0,473
books	1 if books to study were available at home	0,814
worked_before13	1 if he/she started working before 13 years of age	0,088
schoolarship	1 if he/she received a scholarship to study at secondary school	0,108
sch_same	1 if he/she did not change school during secondary education	0,807
sch_priv_rel	1 if school is private (religous)	0,177
sch_priv_nonrel	1 if school is private (not religious)	0,152
sch_priv_no*	1 if school is public	0,671
sch_languages	1 if school is bilingual	0,171
sch_simple	1 if school is during morning or aftenroon but not both	0,823
sch_conurbano	1 if school is located in Conurbano	0,704
shc_public	1 if primary school is public	0,685
xcohort1	1 if he/she was born between 1986 and 1990	0,171
xcohort2	1 if he/she was born between 1981 and 1985	0,388
xcohort3*	1 if he/she was born between 1975 and 1980	0,440
N° Obs	Whole sample excluding groups of students "still attending" or those who never completed primary	554

* Base categories

Table 5. Logit model of Completion Secondary School

Variables	Coefficient	z statitics	Marginal probability	Mean
repetition1_3	-0,457	-0,920	-0,092	0,056
repetition4_7	-1,519	-3,180	-0,345	0,052
repetition_sec	-1,146	-4,470	-0,234	0,269
male	-0,455	-1,930	-0,084	0,446
edu_max0_p	-1,430	-1,740	-0,327	0,016
edu_max1_p	-1,177	-2,800	-0,260	0,074
edu_max2_p	-1,004	-3,910	-0,188	0,437
books	0,792	2,700	0,162	0,814
worked_before13	-0,838	-2,260	-0,177	0,088
schoolarship	-0,115	-0,300	-0,021	0,108
sch_same	-0,466	-1,650	-0,079	0,807
sch_priv_rel	0,922	2,230	0,142	0,177
sch_priv_nonrel	0,722	1,720	0,114	0,152
sch_languages	0,748	1,940	0,119	0,171
sch_simple	0,031	0,090	0,006	0,823
sch_conurbano	-0,528	-2,040	-0,091	0,704
shc_public	-0,742	-2,280	-0,126	0,686
xcohort2	0,508	1,740	0,090	0,388
xcohort3	0,972	3,140	0,171	0,440
Constant	1,964	3,120		
Sample size	554			
Mean probability	0,76			
Log pseudolikelihood=	-253,5			
Wald chi2(19) =	127,69			

Note: Huber/White/sandwich estimator of variance was

Table 6. Censored normal regression.

Depend Variable: Years of schooling			
	Coef,	Std, Err,	t
repetition1_3	-0,80	0,33	-2,400
repetition4_7	-1,33	0,36	-3,710
repetition_sec	-0,95	0,18	-5,160
male	-0,27	0,16	-1,630
edu_max0_p	-1,12	0,58	-1,940
edu_max1_p	-0,99	0,33	-3,010
edu_max2_p	-0,83	0,18	-4,540
books	0,65	0,21	3,120
worked_before13	-0,68	0,27	-2,500
schoolarship	0,11	0,25	0,430
sch_same	-0,11	0,20	-0,580
sch_priv_rel	0,82	0,25	3,260
sch_priv_nonrel	0,79	0,25	3,110
sch_languages	0,26	0,23	1,140
sch_simple	-0,14	0,21	-0,660
sch_conurbano	-0,29	0,21	-1,400
shc_public	-0,29	0,17	-1,650
xcohort2	-0,01	0,22	-0,030
xcohort3	0,53	0,21	2,470
Constant	13,22	0,42	31,240
_se	1,87	0,06	(Ancillary parameter)
Obs.summary	545	uncensored	observations
	184	right-censored	observations

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BIBLIOGRAPHY

Barro R.J. and J.-W. Lee. 2000. "International Data on Educational Attainment: Updates and Implications." Harvard University, Center for International Development Working Paper No. 42.

Beccaria, L and R Maurizio (2005) "Changes in Occupational Mobility, Labour Regulations and rising precariousness in Argentina", *mimeo*. Universidad Nacional de General Sarmiento.

Binstock, G. And Cerrutti, M. (2005). Carreras truncadas: el abandono escolar en el nivel medio en la Argentina. Buenos Aires: UNICEF.

Cameron and Heckman (2001). The Dynamics of Educational Attainment for Blacks, Whites and Hispanics. *Journal of Political Economy.*

Carlsson Teresa (2006) Youth and Social Development in Argentina – a survey of the literature. *Mimeo*

Carneiro and Heckman (2002). "The Evidence on Credit Constraints in Post-Secondary Schooling" *The Economic Journal,* 112.

Carneiro and Heckman (2003). "Human Capital Policy", in J. Heckman and A. Krueger (eds), *Inequality in America: What Role for Human Capital Policies,* MIT Press.

Decibe, Susana y Canela, Silvia (2003) Estudios de Competitividad sistémica. Componente E: Educación y Sociedad del Conocimiento Estudio 1.EG.33.4, Préstamo BID 925/OC-AR., Coordinación: Oficina de la CEPAL-ONU en Bs As, a solicitud de la Secretaría de Política Económica, Ministerio de Economía de la Nación Argentina, Marzo 2003.

Haddad, W (1979). Educational and Economic Effects of Promotion and Repetition Policies. Staff Working Paper No. 319.

Hanushek (1979). Conceptual and Empirical Issues in the Estimation of Educational Production Functions. *The Journal of Human Resources*,

Hanushek (1986) The Economics of Schooling: Production and Efficiency in Public Schools Journal of Economic Literature

Harbison, R and Hanushek, E (1992). Educational Performance ofthe Poor: Lessons from Rural Northeast Brazil. Oxford University Press.

Herrán, C. A. (2001). Why do youngesters dropout of school in Argentina and What can be done against it?. Working paper. Social Programs Division

Giovagnoli, Fizsbein and Partinos (2004). Estimating the Returns to Education in Argentina: 1992-2002

Gomez Neto and Hanushek (1994). 'Causes and consequences of grade repetition: Evidence from Brazil', Economic Development and Cultural Change, 43, 1, 117–148.

Jacob, B A. and Levitt, S D (2003), 'Rotten Apples: An Investigation of the Prevalence and Predictors of Teacher Cheating', Quarterly Journal of Economics, 118, 3, 2003, 843-878.

Eide and Showalter (2001). Eide, Eric R. and Mark H. Showalter (2001), 'The Effect of Grade Retention on Educational and Labor Market Outcomes', Economics of Education Review, 20, 6, 2001, 563-576.

Kit España and Labate with the colaboration of Scasso, Labena and Giovagnoli. (2005).

Ley 1420 in http://www.bnm.me.gov.ar/giga1/normas/5421.pdf

Rumberger, R. (2001). Why students drop out of school and shat can be done? May. University of California, Santa Barbara.

Sidicaro, R and Tenti Fanfani, Emilio (1998). La Argentina de los jóvenes. Entre la indifierencia y la indignación. Losada/Unicef, Buenos Aires.

Spiegelman , R G (1968). “A benefit/cost model to evaluate educational programs. Soc-Econ. Plan. Sci. 1 443-60.

Wooldridge, J. (2002). Econometric Analysis of Cross Section and Panel Data. The MIT Press.

Wolfe (1995). “External Benefits of Education”. In Carny, M. International Encyclopedia of Economics of Education. Basingstoke: Macmillan.

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