Boosting Social Mobility: The grass can be greener for all

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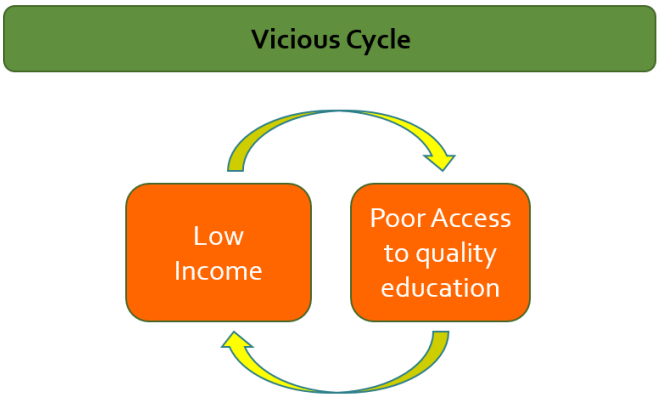
1. Introduction

For the first time ever, Colombia´s investment in education has surpassed its military investment. However, the country invests only 3.8% of its GDP in education while other countries invest 6%. There are more than 1.8 million students in higher education, but only about 0.5% have access to government loans and scholarships. There are 288 universities across the country but only 38 are certified as high quality institutions, therefore only the most advantaged students can access high quality education.

Due to the configuration of education systems, low-income students are forced to attend low-quality education institutions, which makes them get jobs with low wages. This way the education system can perpetuate the cycle of poverty (see Diagram 1).

Diagram 1. Cycle of poverty

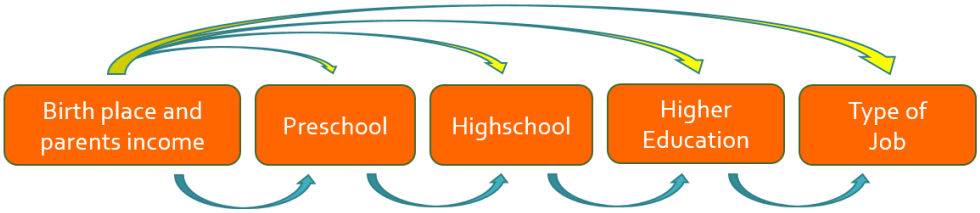


The purpose of this study is to measure the difference in social mobility indicators on students coming from different backgrounds and propose an intervention to improve the higher education system in development countries. The study measures social mobility in terms of income, labor status and other variables of general wellbeing. The sample included students graduated from Los Andes University between 2000 and 2015. The main results are: (i) students attending Los Andes University earn significantly more than national averages due to its best practices as a high quality institution (ii) there is an earnings gap between students within the same university and with the same GPA, which leads to think that soft skills have a significant impact on social mobility (iii) academic excellence reduces earnings gaps, (iv) work experience contributes to increasing wages but does not reduce earnings gaps.

2. Literature

The world´s population is now divided in two: people with opportunities and people without them and much of the gap between this two groups is explained by variables outside of their reach. Milanovic (2010) indicates that 80% of a person´s income is determined by two factors: their country of birth and income of their parents. The remaining 20% is due to factors such as gender, age, race, and others such as effort and hard work. According to Milanovic the efforts people make explain only a small part of their success. As we can see in Diagram 2 every step up in the education system depends on the quality of the previous institution attended and on the initial conditions of life: birth place and parents income.

Diagram 2. Dependency on institutions and initial conditions



The role of education institutions is crucial to reduce these kind of inequalities. However, Haveman and Smeeding (2006) explain that “income-related gaps both in access to and in success in higher education are large and growing. In the top-tier colleges and universities almost three quarters of the entering class is from the highest socioeconomic quartile”. The authors explain that the reason why many low-income students do not enter universities is because of their low scores in state tests and other indicators related to family income. Top universities could receive more middle and low income students, as there are a large number of qualified applicants who are not admitted. In short, some students do not access quality higher education because they lack skills and others, who have the skills, are not admitted because of selection biases.

According to Bourdieu (1988) selection decisions people make are determined by cultural factors, especially related to social classes and the conception of aesthetics. Following Bourdieu, it is presumable variables such as social skills, physical appearance, name, surname, networks and the prestige of institutions attended play a stronger role in the working environment than academic excellence.

There is consensus on the correlation between education and social mobility (Brown, 2013; Mincer, 1974). However, Spence (2002) indicates no causality between these variables, but only a ´signaling´ effect where employers interpret studies as a signal of the skills of a worker not necessarily being this true.

In a social mobility study, Angulo et al. (2012) compared Colombia with other Latin-American countries leaving two conclusions: (i) the possibility of progress today in educational terms in Colombia is lower than it was in Chile 30 years ago; and (ii) the Colombian middle class is vulnerable and has significant deprivation in terms of education and work. It is necessary to identify the variables that determine social mobility and the necessary changes needed in the educational system to promote the vast potential of human capital present in every country.

This paper identifies two main limitations in the higher education system: (i) teachings are limited to cognitive knowledge ignoring the skills required for life and work; and (ii) selections biases impede capable students from receiving quality education. In this sense, public education is for everyone but quality education is not.

3. Methodology

Two surveys were used for this paper:

The first survey was conducted in 2015 by the Office of Financial Support of Los Andes University, with 3,732 respondents. It served analyze gaps and patterns of long-term results since students graduated within a 15 year spam -between 2000 and 2014. In this survey 10% of the students made use of a scholarship. This survey has a focus on income and education, therefore a second survey was needed.

The second survey was conducted in April 2016 also by the University and measures specific variables of social mobility as: socioeconomic background, parental education, work path, general welfare indicators and qualitative variables. This survey was answered by 580 students who graduated between 2010 and 2014. In this survey, 13% of respondents were given scholarships. This survey´s objective was to identify social mobility determinants.

This study compares social mobility results of the following three groups of students from Los Andes University:

> ***Advantaged Students –AS:*** Students coming from advantaged backgrounds who did not receive any financial aid or scholarships. **Respondents:** 2,595, 71%.
>
> ***IWS Beneficiaries:*** Beneficiaries of the ´I want to study´ scholarship program with focus on low-income students. **Respondents:** 129, 3.4%
>
> ***General Scholarships –GS:*** Semi-advantaged students who were beneficiaries of scholarships and loans, coming from middle class or semi-favored backgrounds (does not include beneficiaries from the ´I want to study´ program). **Respondents**: 1,008, 27%.

In this paper social mobility is defined according to Ward (2013):

> **Intra-generational:** How individuals are able to improve their socio-economic position relative to themselves.
>
> **Inter-generational:** What a generation has achieved in relation to their parents.
>
> **Comparative:** Likelihood that people of a particular background achieve certain income and social groups.

The two principal hypothesis of this study are: (i) the program ´I Want to Study´ has an impact on its beneficiaries in terms of social mobility; and (ii) the social mobility of beneficiaries is largely determined by factors other than academic preparation.

4. Results

4.1 Results of the first survey, with focus on income and education achievements.

As we can see in Table 1, el 58% of respondents have graduate studies and more than half of them have master´s level and international studies. Additionally, we should highlight the academic excellence shown by 14% of students taking double undergrads. Figure 1 shows that 71% of respondents are Advantage Students, 27% General Scholarships, and only 3.4% IWS beneficiaries. Having so few in the last group can cause some data errors, especially because there are a lot AS and very few IWS with more than five years of experience. For this reason most analysis are controlled by years of experience.

Table 1. Descriptive information

Students with Graduate Studies	2175	58%
Master´s Degree	**1486**	**40%**
Specialization	606	16%
Doctorates	55	1%
With International Grad Studies	**1265**	**34%**
Undergrads	1557	42%
Double Undergrad	**515**	**14%**
TOTAL	**3,732**	100%

Figure 1. Respondents by category

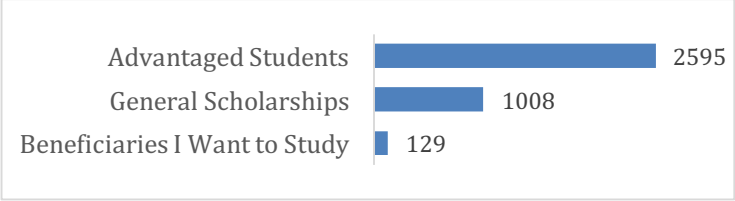


Figure 2. Respondents by career topics

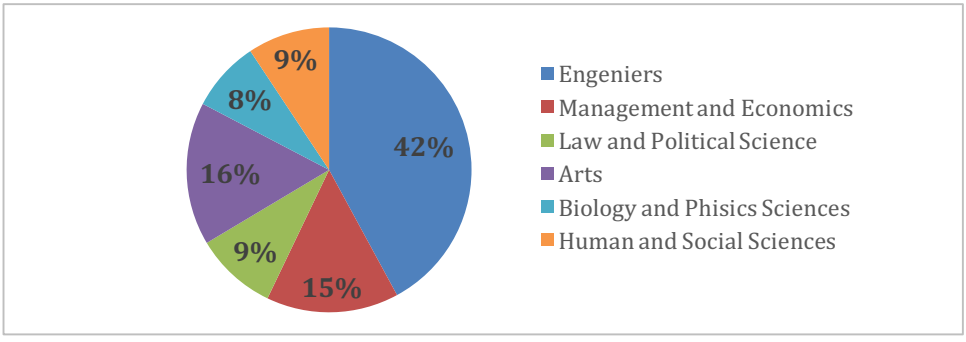
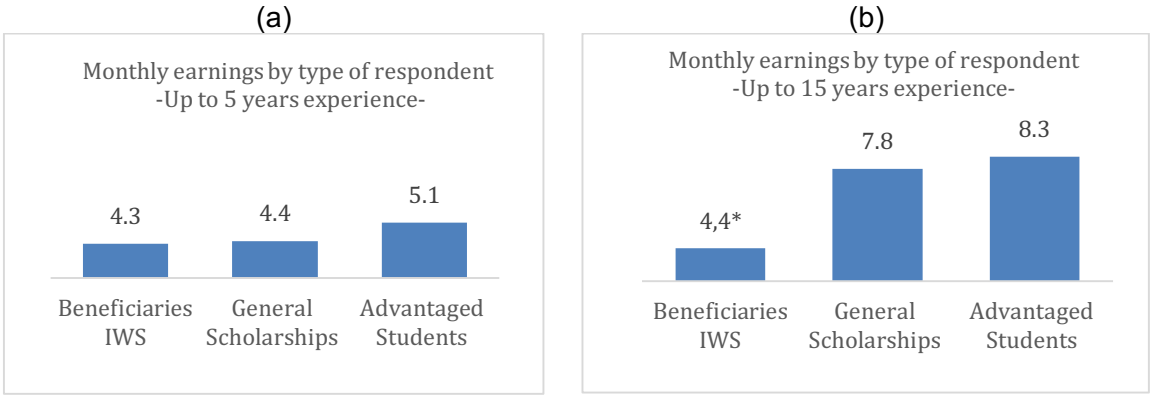


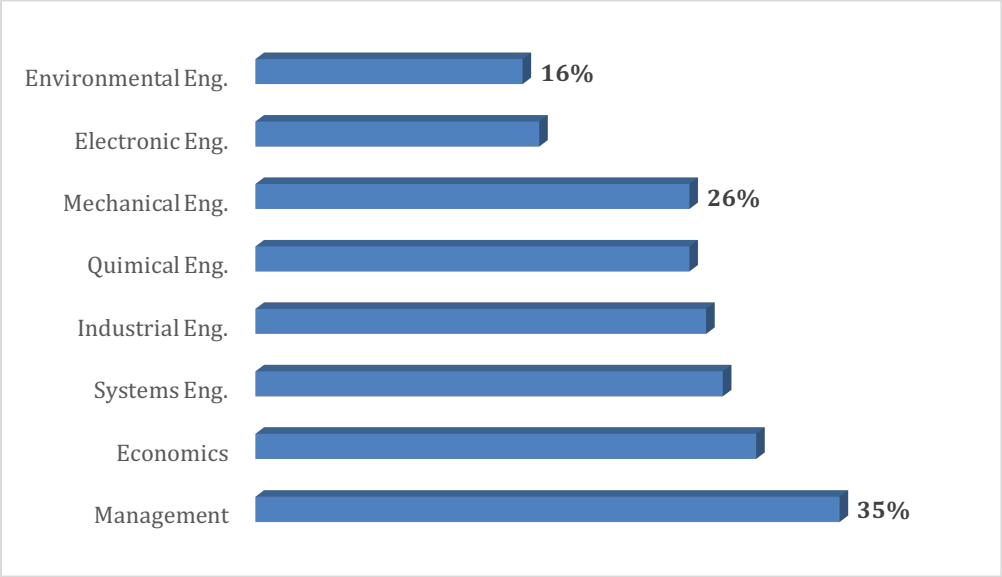
Figure 3. Monthly earnings by type of respondent (millions of pesos)



Note: (*) There are too few IWS beneficiaries with more than five years of work experience in the sample. Therefore, this number could be not representative of the salary for this group.

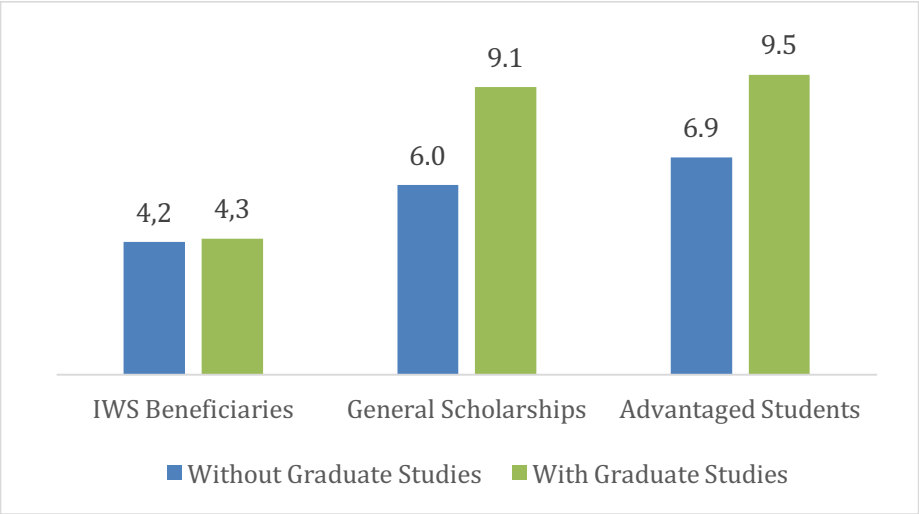
According to the National Observatory for Education, the average salary of Los Andes students is higher than the rest of the country. In panel (a) of Figure 3 we can see that Advantaged Students earn 19% more than IWS beneficiaries and 16% more than General Scholarships. However, in panel (b) we see that, with more years of experience, Advantaged Students earn only 6.4% more than General Scholarships. Therefore, work experience tends to close the earnings gap.

Figure 4. Earnings advantage of AS over IWS and GS (by career)



In Figure 4 we can see that for every career Advantage Students earn more than General Scholarships and IWS beneficiaries. For example, in Management, Advantage Students earn 35% more than GS and IWS, while in environmental engineering the advantage of AS over the rest of students is only 16%.

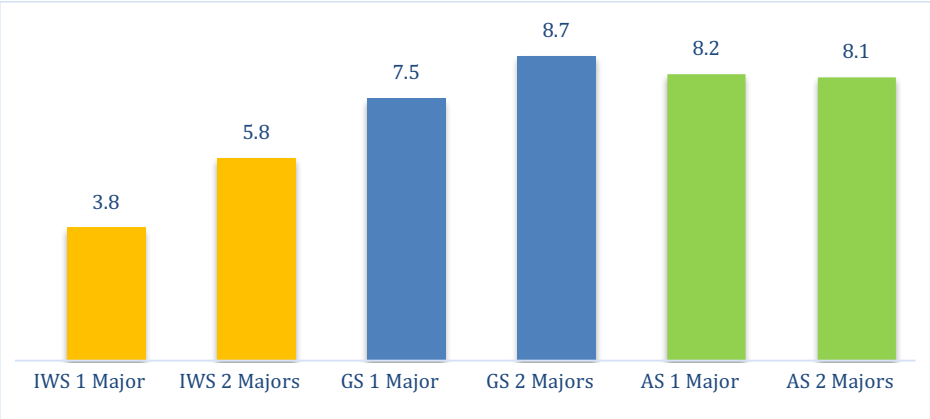
Figure 5. Monthly earnings with and without graduate studies (millions of pesos)



As we can see in Figure 5, graduate studies increase monthly earnings in 50% for General Scholarships and 38% for Advantage Students. However, graduate studies do not increase earnings for IWS beneficiaries significantly. Therefore, graduate studies tend to close the earnings gap for General Scholarships but not for IWS beneficiaries. Since General Scholarships come from semi-favored backgrounds and IWS come from non-favored backgrounds, we note that other variables besides the studies produce these closing gap for General Scholarships. According to the survey data, General Scholarships have better networks of support and social and academic skills. Additionally, we can see in Figure 6 that the pace of growth is faster for AS and GS with more years of experience.

Figure 6. Monthly earnings by years of work experience (millions of pesos)

Figure 7. Monthly earnings by taking one or double program



Taking two majors increases monthly earnings in 53% for IWS beneficiaries, 16% for General Scholarships and makes no difference for Advantaged Students. Academic excellence is highly correlated to increases in income.

4.2 Results of the second survey, with focus on social mobility indicators.

Table 2. Descriptive information of second survey

High Income	54.5%
Middle Income	41.5%
Low Income	3.8%
Public Schools	5%
Rural Areas	2%
Advance Students	63%
General Scholarships	29%
IWS Beneficiaries	8%

As we can see in Table 2, 8% of students from the sample are beneficiaries of scholarship focused on low-income population. However, only 3.8% of the sample belongs to low-income backgrounds, only 5% from public schools and only 2% from rural areas.

We can see this pattern at the national level. The National University is the biggest public university in Colombia and the median and mode of the socioeconomic background of its students is level 3 –middle class.

Table 3. English speaking

Language Skills	*% of Respondents*
Spoke English before entering Los Andes University	75%
Speaks 3 languages	45%
Do not speak English	2%

Speaking English in Colombia is a good indicator of the socioeconomic level, as it is predominant in high income groups. As we can see in Table 3, only 2% of respondents did not speak English. This indicates that most students in Los Andes University come with language skills before entering, therefore they come from favored backgrounds.

Table 4. Way of access to jobs

By family references	18.8%
By professors references	12.6%
Merit based contest	40%
By reference of a friend from the university	14.9%
By reference of others	13.7%

As we can see in Table 4, 60% of respondents attained their jobs through networks of support. Table 5 shows two different ways of getting jobs and with them, two paths to social mobility. Table 5 analyzes the profiles of the respondents who got their jobs subsequently through each of those two ways.

Table 5. Two ways to access jobs and reach social mobility

Characteristic	*Got First Job Through References*	*Got First Job Through Merit Based Contest*
Started as high income students	75%	54%
Parents with graduate studies	36%	24%
Months on average unemployed	2.9	4.8
Got second job through references	71%	36%
Believe networks determine success	38%	20%
Believe academic skills determine success	30%	40%
Work today in management positions	**16%**	**15%**
Earn more than USD$ 2,000 a month	**25%**	**33%**

As we can see in Table 5, there are two main ways to gain social mobility: social networks and academic excellence. Even for the second profile, which suffers more struggles, the results at the end are comparable to the advantaged students from profile one.

Table 6. Inter-generational social mobility

Maximum Educational Level of Parents	Number of Households	Percentage of children with graduate studies	Percentage of children with scholarships	Percentage of children earning more than 5 millions
High school	35	51%	23%	32%
Technician	34	47%	27%	24%
Undergrad	207	68%	18%	36%
Graduate	223	54%	6%	66%

As we can see in Table 6, there are 276 households where parents´ education is up to undergrad studies. In those households, 63% of children experienced social mobility in terms of education and 20% of them attained that mobility thanks to scholarships. Furthermore, 7% of those households are experiencing outstanding social mobility in terms of income.

Conclusions

The education system has the responsibility to reduce social inequalities, however it is not designed to tackle inequality due to its selection biases and its focus on cognitive teaching.

Very few students from disadvantaged backgrounds gain access to higher education. It is urgent to create a strategy to significantly increase this number.

Beyond the normal correlation between years of education and income, Los Andes University has an additional effect on income compared to national averages. Best practices at the university can explain this differences.

University´s best practices recognized by respondents are: academic preparation, quality of teachers, support networks and prestige of the university.

There are three variables crucial to social mobility: support networks, academic skills and social skills. The combination of the three produces the best results in social mobility.

Although it is hard to close the gap between low-income and high-income students, students from semi-favored backgrounds are able to close the gap through academic excellence. This results need to be shown to motivate students on pursuing excellence.

5. Recommendation

Creating an international observatory of education to monitor the progress of lagging institutions and facilitate the transferring of best practices from high to low quality institutions. The observatory will also connect with high school students in grades 10 and 11, bringing them opportunities to access higher education and offering training courses on life and academic skills.

The specific activities of the observatory will impact three areas:

Quality: (i) creating an international teaching network which enhances online teaching and promotes the exchange of teachers from favored to non-favored areas; (ii) facilitating the exchange of best teaching methodologies; (iii) providing online courses on life and work skills for teachers and students.

Access: (iv) creating an international database of scholarships and financial support for students, (v) providing tools to strengthen the academic skills of students with the aim of reducing high school and college dropout rates; (vi) coordinating government programs to facilitate access to higher education.

Management: (vi) creating a network of higher education institutions to support lagging institutions on the implementation of management best practices to achieve high quality standards.

This observatory will help monitoring and achieving SDGs 4, 8 and 10, by multiplying the access of millions of people to quality education, providing the means to attain decent work with economic growth and reducing social inequalities.

6. References

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