

Education & Public Policy in Bogotá: Guarding the Public Interest

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Abstract

High school education appears to be a key variable for the economic prosperity of Bogotá. However, the lack of consideration of quality as a necessary standard for education in the city threatens its potential to positively affect social welfare. One of the main problems emerges from an imprecise conception of education as a public good, condensed in its public policy planning. Therefore, the appliance of more progressive proposals can be suggested to help combine the virtues of market forces and the state's regulatory power.

Keywords/Palabras claves: high school education, public good, educational quality, rate of return of education; educación secundaria, bien público, calidad de la educación, tasa de retorno de la educación

Introduction

Discussions about educational quality can be traced back in history to as far as the ancient times. For instance, Angrist and Lavy (1999, p. 2), examined the 6th century Judaic collection of interpretations of the Bible called the (Babylonian) Talmud. Its more common interpretation recalls the lectures of the 12th century Jewish-Spanish scholar Maimonides, baptizing the rule under his name:

Twenty-five children may be put in (sic. under the) charge of one teacher. If the number in the class exceeds twenty-five but is not more than forty, he should have an assistant to help with the instruction. If there are more than forty, two teachers must be appointed. (Hyamson, 1937, p. 58)

Angrist and Lavy (1999) have tested the rule empirically in Israel. Even though the results of their experiments appear to be statistically ambiguous, and the debate among scholars still fails to reveal solid evidence which could support the application of Maimonides' statement globally (Gary-Bobo & Badrane, 2007), it does reveal a social concern that deserves deeper research. The progress of any nation depends on the quality of its educational policies. However, the issues surrounding educational quality, often a priority on the political agenda, do not seem to ever fulfil the expectations of those who desire their improvement.

This article aims to discuss several aspects. Firstly, a brief theoretical debate about the economic conception of public goods will be addressed. Secondly, Bogotá's educational panorama, emphasizing high-school education, will be discussed. Finally, the outline of a proposal towards a more efficient policy planning for the educational system in the city of Bogotá will be presented.

A Brief Economic Framework

Before proceeding, some useful economic concepts need to be introduced. This will help to understand the implementation of an economic approach for the analysis of the situation of high school education in Bogotá.

Frequently, education is related, in essence, to the concept of public good. Economists differentiate public goods from private goods. By definition, public goods are those that are not either exclusive or rival (Nicholson, 2005, p. 597). In other words, neither does a public good or service require that its users make a direct payment to have access to it (i.e. non exclusiveness), nor does its use by a specific group of individuals prevents other groups from using it (non-rivality). A typical example of such is street lighting; users do not pay for it and everyone in the neighbourhood can use it simultaneously.

Public goods are often awarded with another important feature: they provide social profitability. In economic terms, public goods provide positive externalities¹ and have a positive impact on society's welfare.

¹ An economic "externality" occurs whenever the activities of one economic agent affect the activity of another agent in ways that are not reflected in market transactions (Nicholson, p. 587).

For example, if we typify education as a public good, we could argue that it provides competencies to citizens (it makes them better and more informed voters, allowing for solid democratic states), safety on the streets (violence normally decreases as unemployment decreases), and higher productivity standards in industry, etc.

Now, such facts do not imply that private goods are unable to supply social profitability. Private goods are the opposite of public goods: both exclusive and rival. Think of a car or a hamburger. These kinds of goods also contribute to welfare as their consumption may be positively related to satisfaction of individuals. Good satisfaction levels are also desirable in a society. Happy citizens (according to their preferences in consumption) may also be responsible, non-violent and productive.

Evidently, the main difference between public and private goods is not the fact that only one type of them contributes to social harmony. Basically, the divergence relies on the private profitability potential related to each kind of good. For instance, not everyone is willing to pay directly for street lighting. For a businessman, it would be hard to control who benefits or who does not from the lamps in the road. Therefore, no “benefit seeker” entrepreneur will provide the service² even if it is very necessary for society. The answer to this conundrum is state’s provision using indirect payment from the city’s users (taxes).³

Let’s now refer to education, as it is of major interest in this paper. Education has an essential task concerning social welfare. Through the years “... researchers have found repeatedly that education plays a major role in economic growth”⁴ (Helpmand, 2004, p. 41). Again, education can motivate the production of positive externalities in a society. Then, the following question arises: Should education be treated as a pure public good in a city like Bogotá? It is important to bear in mind that the impact of education will only manage to satisfy expectations if it is imparted

²Theoretically speaking, in competitive markets, prices correspond to marginal costs (the cost of providing an extra unit of product). Low marginal costs, therefore, imply low prices. This is the case of public goods. Providing street lighting to an extra user produces almost zero marginal costs. When prices are very small, profit will be minimum (as income = prices times quantity). Simply, private entrepreneurs will not have motivations to produce those kinds of goods.

³This does not mean that public institutions can only supply public goods. Private agents could also supply public goods. Even though, public goods are hard to administrate in order to produce private return.

⁴The difference between economic growth and economic development has been widely discussed. A debate in which many scholars have argued that the former should only be seeing as a means towards obtaining the latter (Sen, 1999). However, few arguments have been made against economic growth as a desirable goal of societies around the world. The consensus is that it supplies the resources necessary for social welfare.

with minimum quality standards. In the end, “growth increases with the effectiveness (...) of investment in human capital”⁵ (Lucas, 1988, p. 23), and not only its accumulation.

High School Education: An Overview on Bogotá

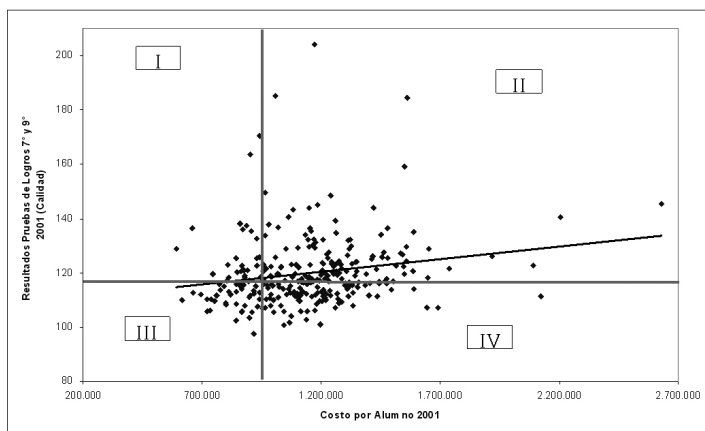
Defenders of public education constantly convey a convenient confusion: a direct association between public and social benefit. London’s (2006, p.19) argument, for example, results to be fairly illustrative to this point: “As institutions of higher learning become more closely linked to for-profit activities and market forces (...) colleges and universities are in danger of losing their privileged status as guardians of the public interest.” One critique can emerge from such reasoning: only public education with good quality standards can optimally defend the public interests.

A simple revision of Bogotá’s educational public policy, the city mayor’s office strategies concerning educational issues (*Plan Sectorial de Educación 2008-2012*), is enough to establish the existence of a political bias surrounding the main projects. Bogotá’s educational agenda gives priority to the amount of students enrolled in the system, over the quality of the education supplied. In a certain way, this is politically logical since quantity provides more votes than quality. The proof of it relies on the nature and the order in which strategies are outlined. Quality goes always first, and goals are more explicit. Quantity directed programs are mentioned afterwards and with much more ambiguous outlines. This point of view coincides with other scholars’:

It is not the same thing for us to state that the main objective of our analysis is the quantity of children that are being taken care of, as it is for us to defend the principle that a lack of quality education has not had support either in long or in medium-term planning. (Torres, 2007)⁶

⁵ Education can be directly linked to human capital formation (skills, abilities). According to Lucas’s statement, only high quality education will encourage economic success, and therefore, the accomplishment of welfare goals.

⁶ Translation from Spanish made by professional translator.



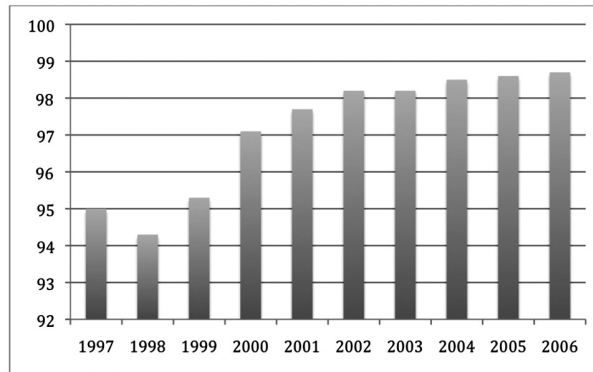
Graph 1. Education average per-student costs against exam results (Bogotá). Source: Suarez, 2005.

Graph 1 should be studied only as historical evidence rather than like an actual picture of Bogotá education's panorama. 2001 numbers cannot evaluate recent progress. Though there is quite robust evidence to sustain the persistence of a situation in which expense in education in Bogotá (both public and private) does not find a positive relation with quality standards (measured by results in school examinations). Notice that Suarez's (2005) estimation suggests that average per-student expense does not appear to have very good results in terms of human capital formation. By this, we mean strong skills among students.

Such recent evidence comes out from Farné and Vergara (2008, p. 11). The researchers from the Labour Market Observatory from *Universidad Externado de Colombia* pointed out that from a survey using 4,000 businesses as its base group, only 11.4% of those were able to say that the academic background of their personnel was good enough to satisfy their standards of production. In other words, it is implied that professionals find themselves with lack of formation qualities when they arrive on the labour market. It is important to mention that the authors argue, in an explicit way, that such outcome comes from serious weaknesses in early education phases (especially high school).

Therefore, the issue does not appear to be the lack of local government's capability to provide education to the citizens. As a matter of fact, during the last decade, there has been an undisputable improvement in the accessibility young people have had to primary, middle school and high school education in the city. Graph 2 reveals that in 2006 school enrolment reached 98.7%. According to official statistics, Bogotá today has an illiteracy rate of 1.8%, a considerably low

figure compared to the national average, which is at 9.6% (*Secretaría de Educación del Distrito Capital*, 2008) and counts with important access levels for lower socio-economic segments of the city's population (98% of social classes 1-3).⁷



Graph 2. School enrolment in Bogotá (% of children who study). Source: *Alcaldía Mayor de Bogotá* (Bogotá City Hall), 2007.

Even though quality concerns prevail and with such skepticism about education's public potential. Predicatively, the problem might be more than bureaucratic.⁸ Budget constrains simply enforce decisions between quality and quantity. In fact, numbers appear to reveal that in some States of the United States, for example, expense per pupil widely overpasses Bogotá's fiscal effort.⁹ Following Fish's (2007), results from such situation, concerning Bogotá's economic potential, are quite pessimistic.

⁷ International readers should be made aware of socioeconomic stratification. Colombians hold a scale system to determine the fees for public services to be paid in a given place (i.e. neighborhood): Number 1 on the scale represents the lowest level of income, and number 6 the highest. Commonly those who live in neighbourhoods in "estratos" 1 & 2 are people with a low-income level, while those in 3 & 4 have a middle class income. Those who live in levels 5 & 6 are normally people that belong to the wealthier groups of the population.

⁸ There is quite robust evidence to sustain, for example, that corruption is far from being a governmental phenomenon. It is documented that illegal behaviour is also common in private institutions.

⁹ Bogotá's expense per pupil, using 2005's exchange rate, rounds 481 dollars per student (Suarez, 2005). Press articles and official statistics suggest, for example, that in California expense in 2006 rounded \$11,000, or that in New Jersey the number raised, in average, to around \$12,000 in 2008. Such differences might be expectable. Still, they result interesting for analytical purposes. http://www.napavalleyregister.com/articles/2006/03/26/news/state/iq_3361910.txt <http://www.state.nj.us/cgi-bin/education/csg/08/csg1.pl>

There's that word "good" again. A (relatively) inexpensive education may not be such a bargain if along with the lower price comes a lower quality. The challenge is to combine first-class schooling with affordability and access. The temptation is to do things on the cheap.

Why Study?

Why should I go to school? What motivations to study do students have? Perhaps the mainstream of the situation surrounds this type of questions. More in a city where social mobility is quite static¹⁰ and the majority of students (around 90% of them) simply do not see the virtues of trying to become what, referring to popular thinking, they are simply not. Economists often refer to the rate of return of education; which are the benefits and which are the costs of going to school.

Technical statistic estimations (using econometrics) could result useful for this purpose. In fact, some studies have already made their own predictions. Forero and Gamboa (2007), for example, suggest that between 1997 and 2003, the rate of return of education in Bogotá reduced from 15.9% in the first period, to 13.8% in the latter one. Institutions like the World Bank or the United Nations often provide such data.

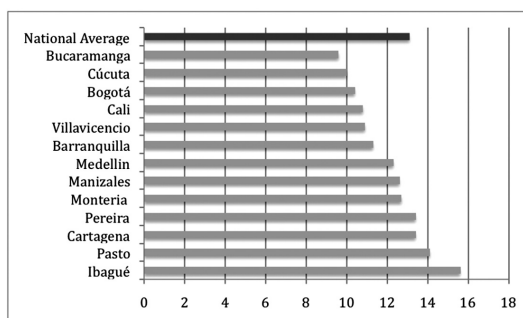
However, regardless of the fact that technical analysis results very useful for policy makers, it might find limitations to answer the question, why to study, from the perspective of common students. Not everyone is aware of econometric methodologies. Furthermore, middle and low class families are not likely to read these facts before they take studying decisions. Daily perceptions can then also result useful.

Studying implies time, effort and dedication. The cost of opportunity of going to school for some segments of the population is high. This means, the relative cost of school assistance. Bearing in mind Bogotá's low rate of social mobility, when low-income students go to school, they might feel to be simply wasting their time. Despite constitutional laws prohibiting child labour in the country, some realities demand children helping in expenses of their household. Therefore, unemployment rates result to be a useful approximation to such kind of perception.

¹⁰ Roughly, social mobility might be defined as the possibility for an individual to increase his economic welfare during his lifetime; being born poor and being able to die rich. In Bogotá it has being well documented that there great social and economic barriers for social mobility. (See, for example, Uribe-Mallarino, 2008).

Diploma	1997	2005	2007
Professional	13.4	31.0	15.8
High School	11.5	21.3	10.3
Primary	9.0	16.9	6.4
Non professional	9.8	19.2	8.2

Table 1. Unemployment rate according to educational level in Colombia. Source: Farné & Vergara, 2008.



Graph 3. Unemployment rates in the mayor cities of Colombia (2008).

Some analysts present robust reasoning to presume that Bogotá is, at least from an economic perspective, in a privileged situation in comparison with the rest of the country. However, it finds itself trapped in considerable employment restrictions. As shown by Bogotá’s chamber of commerce (*Camara de Comercio de Bogotá*),¹¹ not only does the city have one of the greatest national unemployment rates, but it is also found to be higher than the Latin American city average. Evidence for that is also presented in Graph 3. Simply, Bogotá’s unemployment rate does not escape largely from the national’s average.

Therefore, the results shown in Table 1 are quite revealing. We may see horizontally (in the rows) that there are temporal fluctuations in unemployment rates in Colombia, which could be explained by different socioeconomic factors that will not be addressed here. The columns, on the other hand, have much more interesting things to say. It is quite clear that education in Colombia (and in Bogotá) is not as profitable as we may have supposed. It results hard to find a positive relation between studying levels and employment rates.¹²

¹¹ At <http://camara.ccb.org.co/contenido/contenido.aspx?catID=125&conID=511>. Last checked in December 2008.

¹² In this phase we have excluded post-graduate studies, which could match with higher wage expectations. Though, we part from assuming that in a city surrounded by poverty, access to such programs is unthinkable for large segments of the population.

Still, some other pertinent observations should be made about Table 1. Presumably, wages will always differ among educational levels, improving with higher levels of education. This supposition produces higher pay expectations in the minds of college graduates. The requirements of employment in the different degrees of academic achievement are different enough so that practically everybody knows that it's not the same to be employed as a college graduate than it is to be employed as a high school graduate. Certainly, those who are studying more are not doing it because of any masochistic preference for worse working conditions. People only study more when there is a realistic expectation that they will do better in life if they dedicate time to schooling.

So, what is the issue? We insist to be aware of the fact that Bogotá's social mobility is quite static, and so middle and lower class students (the vast majority of the students in the city) find few motives to go to school. Their rate of return of education is low. Education, by many, is not considered to be as profitable as it should. Figures support this fact: according to *El Ministerio de Protección Social* (The Social Welfare Ministry), the main cause of school drop-out (leaving school before graduation) is the lack of money to pay for school (35% from those polled), followed by the lack of interest in attending school (25%).¹³ These numbers coincide with the reasons given by *DANE* (National Statistics Department), which places the two at 40.4% and at 20.8% respectively.¹⁴

Often, only the first part of the equation is evaluated (lack of money), as it appears to have greater weight in the problem. This justifies public intervention and even direct public supply. Nevertheless, demand for education might be not as high as expected, so it could drive to inofficial expending. As a matter of fact, it could be possible that the lack of interest to study causes a major negative impact on enrolment than the lack of resources.¹⁵ Furthermore, when quality in education is the priority, quantity deficits will be more easily solved out.

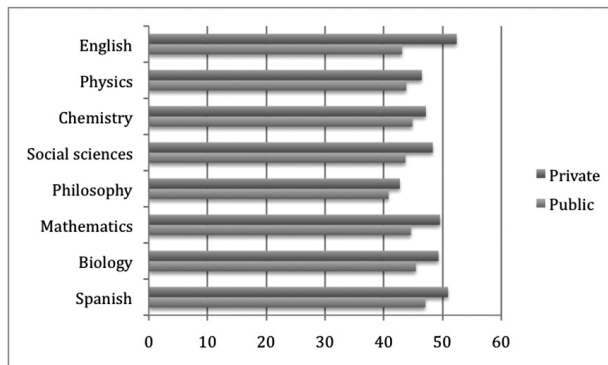
¹³ Though lack of access appears to enlist public perception, lack of interest in going to school also shows to be a mayor concern.

¹⁴ These figures are used in Farné & Vergara (2008).

¹⁵ In fact, the United Nations Development Programme (UNDP) points out that during the last decade in Colombia (numbers of 1997), only around 27% of the pupils who left school belonged to the lowest income segments of the population. In other words, 63% of the students left the system for different reasons than lack of money (Pardo & Sorzano, 2004, p. 68).

Making Education Attractive

According to Bogotá’s Mayor’s office, school dropout rate has shown a decreasing tendency during the last decade. Official statistics point out that it dropped from about 3.8% in 1998 to 2.5% in 2006 (*Alcaldía Mayor de Bogotá*, 2007). Following previous analysis, this fact does not appear to say much. Graph 4 becomes a good prediction of an actual version of Graph 1; quality in education (both public and private) is mediocre.¹⁶ People attend school but learn little. Low perceived rates of return in education indicate that the decrease in the dropout rate is not a sign of success. Pupils have few motivations to study hard.



Graph 4. Average score in each subject in the state examinations (ICFES-2007) for students of the private and public institutions of Bogotá. Source: *Alcaldía Mayor de Bogotá* (Bogotá City Hall), 2007.

In this point, some basic economic principles could result useful for the analysis. Classic as well as modern economic theories agree on basic supply and demand principles. When demand increases, enterprises income potential shifts up, and so, they will want to upgrade production levels. Growth will always require more investment. For instance, more human resources must be hired in a growing business.

When quality standards are met in education, two outcomes should be expected. First of all, better students will go to college to become trained professionals in the workforce. More trained professionals in the labour market imply higher productivity rates. High productivity

¹⁶ Graph 2 allows us to make diverse hypothesis. The most evident assumption is that there is better academic performance in private schools. Another is that the differences in results are not as drastic so as give anyone the licence to make radical conclusions concerning the two different types of schooling under scrutiny. Some might conclude that private education is not necessarily better, but less bad than public school education.

is linked to both high wages and business growth (more employment). Secondly, as quality will change education's impact on society (it will prove itself to have, what was called a higher rate of return), more people will demand admission to the system. Drop-out rates would shuffle down more efficiently, and furthermore, there would be little urgency in pushing enrolment. The benefits of schooling would be sufficiently attractive.

Quality should then be the priority. The following question arises: How to motivate high quality standards in the supply of education? Colombian public policy makers have outlined the quality reinforcement problem (*Plan Sectorial de Educación 2008-2012*), showing their consciousness of the issue but failing in the practice of planning to achieve a more appropriate level of quality for students in the system.

According to the facts discussed above, it is advisable for the government not to supply education. Its duty should be to concentrate in regulatory tasks. Budget constrains and lack of information to provide opportune services should be the main reasons to defend such idea. The necessity to administrate multiple public institutions is a major limitation to efficient service provision. Theoretical implications of a private service are quite robust:

The reason behind the successes of private, fee-based systems should be elementary to any student of economics: Private businesses are consumer oriented. The feedback of profit and loss tells an entrepreneur when they satisfy, or fail to satisfy, the needs of consumers. (...) Conversely, profit is a reward to entrepreneurs who correctly anticipate consumer wants (Dean, 2004)

Returning to the main issue of the paper —education for welfare— satisfaction of needs is fundamental. Private schools have important advantages: better formed teaching staffs, more bilingual education opportunities than actual public schools, more resources for quality in alimentation, technological access and even better non strictly academic activities (sports, arts). The government's job should focus more on correcting failures in the market: for example, making sure that both the syllabi and contents are within acceptable frameworks, controlling cleanliness in school environments as well as questionable abuses in pricing¹⁷ (something which would, in fact, also be corrected by the free-market competition among schools).

¹⁷ A very good example of this is the 2008 Colombian Law 1269 concerning useless school supply demands from schools. The law was the means by which the government intervened to solve an excessive demand of school administrators in the purchases required of their students.

A Payment-based Strategy

Scholars have discussed both the benefits and the costs of free services, including education. Sociologically it can be argued that when individuals are responsible for costs, they value the products they are acquiring (Wolf & De Maura, 2004, p.73). This conception results hopeful: if students take school more seriously they will surely increase their skill formation rate.¹⁸ Still, observers of Bogotá's reality may argue that one of the main problems is exactly the lack of resources among potential users. This vision can be re-evaluated.

A final economic concept has to be introduced. Economists study what they call the *price-elasticity of demand*: basically the responsiveness of buyers to the fluctuations in product prices. In consequence, when the need for a product is low (such as a luxury good), the demand is considered to be *elastic* (small changes in prices modify demand in higher proportions). When the opposite is true and an item is necessary (such as insulin in the case of diabetics), the demand is called *inelastic* (small changes in prices modify demand in lower proportions). The implication of such notion is very important. Subsidies (aids for consumption) should not focus on elastic goods. People will automatically re-focus aiding resources to solve more crucial needs.

Education, for instance, in a pro education conscientious society is, in fact, an inelastic demanded service. But when a society is not aware of its importance, education may be considered to have an elastic demand. Being that the rate of return for education in Bogotá is low (i.e. the personal payback of education is not clearly established), education is not a priority among citizens. The educational demand is highly elastic and people prefer to invest their money in more "vital" products.

It is important to highlight that one of the primary strategies of the current administration is aimed towards school assistance conditioned subsidies (aids). Financial support is predicted to be a positive attendance incentive for both parents and children, in despite of academic expositions.

It's clear that the urgent need to work and make money is no longer the main reason to leave school and that a household's lack of money does not necessarily imply less school attendance, as if with finances attendance would be instantly assured. Other factors

¹⁸ In fact, contrary to such reasoning, actual city planning aims towards free education services. According to the Mayor's Office Educational Program for 2008-2012, one of the basic strategies is to grant free access to education up until 11th grade (the whole of elementary and secondary schooling).

such simply liking school, the parents' desire for their child to attend (...) also account for the statistics, and in a relatively high percentage (Torres, 2007)¹⁹

Therefore, subsidies will not encourage school attendance if families continue to dislike school or to underestimate the virtues of education. If the aids are conditioned, circumstances will not guarantee hard and responsible studying. Pupils will attend classes but will not make much of an effort. This way subsidies can be lost.

The proposition is quite simple: subsidies should be conditioned toward inelastic products (such as shelter, dressing or alimentation). This will free resources, which will allow pupils to pay for their own education (motivating commitment and responsibility), and of course, private profitability (promoting private commitment towards customer satisfaction). If it is needed, school payments might be complemented with partial subsidies but not with total ones. The logic followed is the same.

Conclusion

This article has questioned public education's real potential to achieve welfare goals among Bogota's population. Education produces positive externalities, such as responsible voting, decrease in violence and positive increases in industrial productivity. Although the low quality standards that characterise in the actual service supply restricts the achievement of desirable goals.

Constantly, biases towards quantity of enrolment dominate policy design. But, as discussed, a misunderstanding of primary issues leads to non-optimal planning. Both scholars and official statistics reveal that the lack of willingness to go to school shifts down the demand for education in the city. The main reason is, apparently, the low rate of return of education.

Presumably, if such benefits of education rise, more people will demand access to the educational system. As previously discussed, only quality standards would be able to achieve such improvement since more prepared professionals will have a positive impact on economic productivity. A better wage payment and an increase in labour hires will induce a higher profitability to school attendance. This proposal can be a more efficient strategy than to correct access deficits.

Finally, the virtues of a market based private service under state regulation are evident. Considering several socio-economical realities, Bogota's education should be managed by private entities, whose benefit-seeking mode of thinking will lead to more efficient service.

¹⁹ English quote translated from Spanish by a professional translator.

Government aids should focus vital consumption (such as food or shelter) to free resources allowing students to pay for their studies, generating commitment and responsibility.

In the end, the discussion is meant to take distance from a simplistic debate between public and private education. The system should combine both efforts, bearing in mind the strengths and weaknesses of both private and public intervention.

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