

Elements to design an integral education policy: the Colombian case

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Introduction

In this paper I am going to present the most relevant elements that should be taken into consideration when designing an integral education policy. By integral, I mean that the education system is not made up only by the traditional primary, secondary and tertiary level of education but also it includes training for the labor force and research and development.

I am going to address the questions of what types of education are generally subsidized by developing

country's governments and what the degree of efficiency of these subsidies is in terms of progressivity. In order to answer these questions, I am going to focus on Colombia, a country which successfully provides subsidy distribution among different income groups, particularly for primary school. The other important issue that makes the Colombian case an interesting one is that this country has embarked in an opening economy program. In that sense, it is important to think about what kind of education system should be developed in order to compete in international markets.

This paper has four sections. First, I present the main features of the education sector in Colombia from an international perspective. Second, I present the distribution of subsidies. Third, I discuss the elements that are involved in the relationship between education and international competitiveness. Finally, I make some education policy recommendations to achieve the goals of economic growth and internationalization of the Colombian economy.

I. What is going on in the Colombian education sector

International comparisons suggest that public expenditure on education in Colombia has been moderate. In 1988 the OECD countries spent 4.8 percent of the GDP on education while in Colombia such expenditure was 2.8 percent. In 1992, Colombia spent 2.9 percent, even below the average, 3.5 percent, that countries considered to have low human development¹ spent on education. It seems that such a difference, in Colombia, has

been assimilated by private expenditures which represented 1.9 percent of the GDP in contrast with 0.9 percent showed by OECD countries.

These relatively low levels of public expenditure on education worry analysts because there is a gap between goals and the financial resources to achieve those goals. In the last eight years the social sector in general and the education sector in particular, have taken important places in political discourse. For example, the former Colombia administration gave significant weight to the education sector in the national development plan, but the allocation of resources to achieve goals such as coverage and quality were insufficient. For instance, one of the goals of the last government was to increase coverage to 80 percent for secondary school which at the time showed an average of 46 per cent. Knowing the unitary cost per student and teacher, the amount allocated by the government was clearly insufficient (Alviar, Molina and Polania, 1993). One of the reasons that could

1. See UNDP. Human Development Report. 1992. Table 17.

explain this gap between goals and resources in the case of the education sector in Colombia is that the war against drugdealers and guerrillas deviated significant amounts of money from the national budget.

On the other hand, if one analyzes the evolution of public expenditure in education the sources where from which the financial funds come, one can see that the education sector has a very strong centralized financial structure. Thus, 95 percent of the operation cost comes from the national budget while only 5 percent is contributed by provinces and municipalities. It is interesting to see that this financial structure is even more centralized than the one which the so called "centralized countries" had in 1988. In those countries, 79.2 percent of the total expenditure came from the central government and 18.5 percent from the regional levels. For the OECD countries only 33.8 percent came from the central government (Alviar, Molina and Polania, 1993). This situation points out one of the difficulties that the decentralization process can face. Provinces and municipalities administrate the service but financial resources still come from the central government

in an unusually high proportion as is showed by international comparisons.

Regarding the expenditure per level of education there are some important comments which must be made. First, public expenditure in education in Colombia is directed basically to primary, secondary and tertiary education and marginally to other programs such as Technology and Science, Culture and Sports. Second, from international comparison, important considerations arise. Spending on higher education is quite significant in Colombia. Thus, 20.5 percent of the total expenditure in education goes to the universities; this is almost the average in the OECD countries. This reflects the strong power that public universities have to maintain the participation in the budget for education. Such a figure is also greater than the one showed in other countries in Latin America.

On the other hand, primary education has had a decreasing evolution which is normal for those countries which have reached a satisfactory coverage level. The participation of 38 percent for primary education is lower than that observed in Portugal, but it is still

greater than the 28.8 percent participation which the OECD countries register. Because of that, secondary education presents a low participation (29 percent) in contrast with the 40 percent showed by OECD countries. According to the goal of increased coverage in secondary education it is clear that Colombia must increase the public spending at this level. The way to do so is to reduce the spending on higher education and then reduce the spending on primary education once this level has reached its maturity in terms of universal coverage.

II. Education and distribution of subsidies

Since the establishment of the welfare state and, particularly, after World War II, people accepted that public spending in education could be justified by equity considerations. In addition, in almost all national constitutions, education was seen as a basic human need or even as a human right. Recently, however, there has been consensus in the literature of economics of education about the inequity and inefficiency generated by heavily subsidized systems, particularly, in developing countries. Jimenez

(1986) argues that rich people benefit more from public subsidies than poor people. There is strong empirical evidence in developing countries which shows a tendency for subsidy systems to be regressive. There are at least two reasons why this the case. First, many developing countries use quite regressive tax system. Second, there are extra costs that poor people have to pay in order to go to school such as the opportunity cost of time and cost of transportation, among others.

In that sense, the case of Colombia is quite particular because it shows a positive evolution of subsidies for education in terms of progressivity, at least for primary education. The estimates of subsidies was done based on the previous estimates of unitary spending per student and per teacher (Alviar and Barrera, 1992). As public spending on education is allocated to provide an educational service and there is not reimbursement from students, one can say that the public spending is all subsidy (Alviar, Molina and Polania, 1993).

The lessons that are learned from the Colombian experience are quite interesting in terms of subsidy distribution among income

groups. They constitute an important element to take into consideration when designing an educa-

tion policy. Table 1 summarizes the main results.

Table 1
Colombia. Education Subsidies per Household (1992)
(Pesos 1990=100)

Quintil	Primary	Secondary	Higher	Total
1	48939	26849	4970	80759
2	31474	34680	8756	74910
3	22934	32824	17707	73910
4	12542	23092	31941	48845
5	4936	12450	31459	48845
Total	24165	25979	18967	69111

Source: (Alviar, Molina and Polania, 1993) p.177

This table shows how progressive the allocation of public subsidies is in the Colombian case. Clearly, one can observe that the higher the income the lower the subsidy. This is a way to redistribute income. For instance, the subsidy for the lowest income group of the population is \$80759 pesos which is about two times the subsidy for the richest income group.

However, when one observes the subsidies by level of education

the progressivity changes depending on the level. Thus, public spending in primary school is clearly progressive. Regarding secondary level, the subsidies concentrate in groups 2 and 3 which is still progressive but, the poorest income group is getting less subsidies to access to secondary education. Additionally, higher education is clearly regressive. This is consistent with the level and features of the attendance at this level. Thus, higher income group people go to

public universities and benefit from public subsidies.

In general, one could say that income distribution through education spending puts Colombia in a comparatively advantageous position by allowing authorities to concentrate in other concerns such as quality of education which has decreased in the last ten years (Alviar and Polania, 1991). In general, one also could say that the efficiency of public spending in education, with the exception of higher education is quite high and has been held high for at least, the last twenty years. Selowsky (1978) found the same results, particularly for primary education in 1974.

III. Education and international competitiveness

A. The challenge of competitiveness

The challenge for an education policy, particularly for developing countries and especially considering the paradigm of market oriented economies today, is to educate people to live in a more free, decentralized and democratic society and to use new and changeable technology which makes higher

productivity possible as well as higher levels of economic welfare. This thought raises the distinction between education and training. Education is a broad concept which is associated with the process through which human beings can get knowledge and the analytical capacity to understand and interpret reality. In that sense, and from a more ethical perspective this concept is related to the idea of having better citizens. Training, in turn, is a more specific concept and has to do with the skills that a person needs to do certain tasks. In that sense, training has a lot to do with categories such as, labor force, productivity and economic growth. In this section, I am going to concentrate on some of the elements that characterize postsecondary education in Colombia from a policy perspective.

Colombia has embarked in an opening economy program starting in 1990. The idea was to internationalize the economy through a more export oriented strategy. It means that the Colombian productive sector is now exposed to international competition. Questions arise: Is the productive sector prepared to compete in the international market? How are the human

resources to face that challenge in a country with a labor intensive production? Is there any significant basis on Science and Technology?

B. Features of postsecondary education

Let us see some of the features which characterize postsecondary education and the activities of Science and Technology in Colombia. First, there exists a high enrollment concentration (82.7 percent) in four main fields: 20.7 percent in Education, 11.7 percent in Law, 25.3 percent in Administration, and 36.4 percent in engineering (Trujillo, 1992). Colombia shows a high proportion of students enrolled in fields like Law and Administration. There is a very low participation in Natural Sciences. Second, the development of scientists and engineers is quite low when one compares statistics with other countries. Thus, in 1987, while Colombia had 33 graduated per one hundred thousand people in engineering, countries like Japan had 83, Korea 96, Canada 76, Hong Kong 104 and Singapore 140 (Trujillo, 1992).

In the field of natural sciences the development of educated pro-

fessionals is too low. Colombia had, in 1988, 22 students and 2 graduated per one hundred thousand people, while countries like Hong Kong had 50 and 9 respectively, Japan 42 and 10, Korea 135 and 22 and Singapore 95 and 28. One of the reasons that explains this situation is the slow development of graduate programs in Colombia, particularly at the doctorate level. At the same time, it is hard to imagine that with this lack of well educated human resources Colombia will succeed in its opening economy program because the first requirement to compete is quality, and quality is obtained through improvements in productivity, and the use and adaptation of technology which requires people to have a minimum level of comprehension and technical capacity.

C. Science and Technology

What is going on in Science and Technology? If one looks at the countries that present higher rates of economic growth, they are the same that have institutionalized a national system of Science and Technology. These national systems are supported by levels of public expenditures higher than 1.5 percent of the GDP (Trujillo, 1993). In addi-

tion, they have a large number of researchers in various fields who generate an autonomous capacity of investigation, and they have reinforced the relationship among the State, universities and the productive sector. In Colombia, the public expenditure in Science and Technology represented only 0.19 percent of the GDP in 1988.

Basic education and training are two important components of an integral education policy if a country is interested in getting higher levels of productivity and competitiveness. Basic education should provide the general knowledge and capabilities necessary to develop a training process in which the individuals can adapt new technology easily and faster given the nature of rapid technological change.

IV. Policy recommendations

Although, the education sector in Colombia has reached important outcomes, it is important to reinforce actions in order to reduce some inefficiencies that still remain. Thus, the average years of schooling increased from 2.8 years in 1961 to 6.1 years in 1990. This average, however, hides some differences

between rural and urban areas which reflect the presence of low coverage, particularly in secondary education. At the same time, the coverage for higher education is very low (15 percent) when one compares it to international indicators of 35 percent in Korea, 32 percent in Singapore and so on. In addition, there has been a decrease in quality of education according to recent studies at this regard (Alviar and Polania, 1992).

Given the features of the education sector in Colombia, its positive outcomes, its inefficiencies and the model of development adopted to achieve economic growth, it is important to design an integral education policy in order to face the challenges of competing efficiently in the international market and achieving higher levels of human development and welfare for society as a whole. The terms of that integral education policy would be the following:

- To preserve the progressivity of public subsidies in primary education and to improve the access to the poorest group of population.
- To achieve total coverage of basic education. The former

government established a goal of coverage of 80 percent in 1995 for secondary education. The goal would be to reach 100 percent by the end of this century.

- To increase the coverage of higher education, particularly, and to develop and promote postgraduate programs that create a basis for increase technological capacity.
- Regarding Science and Technology policy, the government must increase the expenditure as a percent of GDP. This increase should be shared by the private sector given the public budget constraints. Private participation has been successful in some countries.
- To develop an aggressive policy of training based on the interactive role of private firms, universities and the State. Colombia has advanced in that direction. Thus, the national institution in charge of labor force training is undergoing a restructuring process in order to do a better job. This restructuring process consists in allowing private sector to participate in labor

force training using its own technology.

Of course, in implementing these policies not only is it necessary to increase expenditures but also, it is important to improve the administrative capacity to allocate resources efficiently taking into account the priority areas. It is also important to consider the political willingness to do so.

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