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Educational Crisis in Latin America:

The Financial Constraint and the Dilemma of Quality versus Coverage

Jorge A. Sanguinetty

Bureau for Latin America and the Caribbean • Office of Development Resources • Education and Human Resources Division

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The Financial Constraint and the Dilemma of Quality versus Coverage

by

Jorge A. Sanguinetty

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J.A.S.

EXECUTIVE SUMMARY

This paper is a critical review of the educational situation in six Latin American countries: Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, and Panama. The analysis and conclusions of the paper may be relevant to other Latin American countries. The main thesis of the paper is that there is a crisis in these educational systems that affects the human resource wealth or endowment of the societies, a phenomenon with far-reaching implications for the economic and social development prospects of the region. Although the emphasis is on primary education, some consideration is given to the other levels.

The paper's statements are based on several sources of information: financial data, direct observation of the author on the workings of education systems, interviews with individuals knowledgeable about the educational situation of their respective countries, and the UNESCO/OREALC report of 1990.

The financial data reviewed show that:

- Almost all the funds dedicated to primary education are spent on salaries. There are practically no allowances for instructional materials and school maintenance.

- Almost all investments for school construction are funded with external resources due to the reduced savings capacity of the countries.

- Teachers' salaries in several countries have suffered a serious loss in real purchasing power since 1980 due to inflation. The losses are on an order of magnitude of two thirds.

- With the exception of Honduras and, more recently, Guatemala, the countries show a tendency to spend a smaller fraction of their Gross Domestic Products on education.

- The levels of educational finance at the primary level look insufficient for the combined goals of universal primary schooling and improvements in the quality of education.

Since most of the education budget is allocated to payroll, ministries of education have lost financial leverage as their most important tool to effect changes in education. This condition, along with the steep deterioration in teachers' salaries, has created an antagonistic relationship between ministries and teachers' unions, instead of building a strategic alliance to secure more funds for education. As teachers' salaries deteriorate, the system loses its ability to attract young talent to the teaching

profession, while many currently employed teachers must hold additional jobs to make ends meet.

With the exception of Costa Rica, there is little quantitative data available about the trends in academic achievement in these countries. Costa Rica applied standardized tests that showed extremely low results with respect to the expected average scores. Those results were taken as indications that there has been a decrease in the quality of education over the years.

Indeed, one of the most disappointing aspects of the current educational scene is that educational research is almost extinct in most of these countries, while most of the efforts made are not methodologically sound. The lack of crucial information and data not only hinders the analytical possibilities but also limits the management and decision making system.

The lack of specific policies, targets, and monitoring of academic achievement, combined with the possible effects of the real salary losses on teacher effectiveness in the classroom, appear to be causing academic achievement and the quality of education to drift downwards. Consistently, 75 per cent of those interviewed responded that they believed that the education of a modern sixth-grade graduate is inferior to that of several years ago.

The author's analysis indicates that the educational system is composed of three major components:

- The administrative apparatus (public, private or mixed) in charge of providing resources and guidance;
- The family, representing the beneficiaries; and
- The teacher, representing the producer.

Each of the three is indispensable in educational development and each presents important shortcomings that must be addressed. The current insufficiencies are financial, managerial, and political, all of them mutually reinforcing. Long-term solutions must take them all into account. The successful solutions must restore the effectiveness of the teacher and the ministry, and recognize the critical importance of the family in the educational process.

To summarize the author's findings, the educational crisis consists of the following main aspects:

- Levels of funding incompatible with the goal of universal primary coverage of minimum quality.

- Management systems incapable of making maximum use of resources, obtaining more resources, maintaining minimum quality standards in schools, and providing leadership for educational development.

- Teachers' salaries incompatible with the need to create incentives for good teaching practices and to keep and attract capable professionals.

- Stagnant or declining quality of output and standards.

- A possible chronic deterioration of the quality of the human resource endowment which seriously hinders economic development prospects.

The author analyses and proposes solutions involving actions on several fronts:

- Educational development issues are no longer limited to the education sector. Education should become a top priority in the public policy agenda of Latin American countries.

- The missions and functions of ministries of education should undergo profound changes. A more effective ministry should rid itself of school administration tasks. Ministry functions should concentrate on securing more funds for the school system; setting policy goals and concrete targets for improvements in the quality of education; and supporting teachers and the education process.

- Teachers' salaries must be gradually but significantly improved. This strategy should be carefully coordinated with the macrofiscal authorities (such as the ministry of finance budget managers) to avoid self-defeating inflationary processes.

- Ministry functions should be decentralized and delegated to local levels where feasible. The design and implementation of this process should take into account cultural and behavioral idiosyncracies in the corresponding countries.

- New approaches should be considered to make external funding and international assistance more effective and to ensure that the change processes initiated through external efforts are sustainable with resources of the host country. In education, it is important for donors to encourage inclusion of educational development as a central item in public policy agendas. Technical assistance could be provided to:

  - help the countries formulate and implement comprehensive policies of educational development.

- assist with decentralization of educational systems.

- develop public awareness or social marketing programs about the educational crisis and its solutions.

- directly assist private schools for the poor, bypassing the public system.

- prepare management development programs for public administrators.

- develop national award systems for excellence in education.

- include educational reform and development as a key item in policy dialogues, not as a matter of sectoral policy, but as a crucial part of the public policy agenda.

- support management development programs for a decentralized school system.

The maximum impact of domestic or international investment can only be realized if equilibrium is maintained between investment in primary and other levels of education. The balance between educational levels is important so that a country does not end up with a fine university system and few qualified applicants or, on the other hand, with stimulating primary schools but a secondary system in which students languish intellectually. Resource allocation decisions must be made in order to maximize the returns to educational investment at all levels.

I. INTRODUCTION

The **immediate objective** of this paper is to describe and analyze what many national and international observers have come to perceive as the chronic decline of formal education in Latin American countries. This process did not start recently. In many countries, the first symptoms of the problem became apparent long before the economic and fiscal crisis of the nineteen eighties, although that crisis exacerbated the educational decline in many of the countries. The symptoms of the decline are not always easily observable, let alone measurable. The characterization of the educational crisis requires first hand observation due to the lack of systematically collected data.

A grave consequence of the educational decline is what appears to be a continuing erosion in the quality of human resources of many, perhaps most, countries of the region. This condition can be expected to have a highly negative impact on the future economic development prospects for many of these countries. Therefore, the **final objective** of the paper is to invite reflection, not final decisions, on whether the solutions proposed here should be pursued all or in part and to help define new alternatives for public policy choices designed to reverse the current crisis and, eventually, to pave new avenues toward effective and sustainable educational development. The presentation of new alternatives is an attempt to contribute to organized discussions around future actions by Latin American governments, non-governmental institutions with an interest in education, and international development organizations.

This paper's emphasis is on public primary education because this level constitutes the foundation of the formal educational pyramid. No significant improvements in education can be achieved without first strengthening the primary level. This does not mean, however, that long-term educational development policies can be circumscribed to the primary level. The contribution of primary education to social and economic development depends on the contributions of individuals with higher levels of education. Besides, the financial resources necessary for the improvement of primary education are fungible and can be used in other levels of education. No efficient allocation of those resources is possible without an overall sectoral policy and a clear understanding of the competing needs of its different levels. Therefore, educational development policies ought to encompass all levels of education even if primary education is given priority in allocation of public funds.

This paper focuses on six countries: Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, and Panama. Originally, Bolivia was to be included but last-minute logistical problems developed and travel plans to that country had to be canceled. Nevertheless, the findings, conclusions and recommendations of the paper are relevant to other countries, especially those still struggling to achieve high levels of economic and social development.

This paper is organized into eight chapters. Chapter I is the introduction. Chapter II is dedicated to an explanation of the methodology applied in this paper and to the definition of some important concepts. Chapter III presents a discussion of financial trends and their implications. The quantitative analysis has been kept to a minimum in order to focus on the most important issues. Chapter IV deals with what we do and do not know about educational outputs. This chapter includes a discussion of the implications of educational systems that are managed without sufficient knowledge of the quality of the education produced. The developmental and human resource implications of the elements discussed in the previous chapters are presented in Chapter V. Chapter VI contains a critical analysis of the way educational systems, mainly at the ministerial level, are organized and managed. The chapter provides some insight into day-to-day decision making processes in formal education. Chapter VII is a brief overview of solutions which are currently being proposed or implemented. Finally, Chapter VIII presents a catalog or menu of policy alternatives. This chapter constitutes an effort to look into the future for solutions to the current educational crisis.

II. METHODOLOGICAL AND CONCEPTUAL DEFINITIONS

A. Methodological Approach

Any person with hands-on experience in educational research in less developed countries knows of the difficulties of carrying out satisfactory research or evaluation work due to data insufficiencies. Under these circumstances, the researcher often faces a serious dilemma: circumscribe the investigation to empirically acceptable data and limit the scope and depth of the effort, or investigate beyond the formal data sources to amplify the scope and depth at the risk of loosing rigor in the presentation of the findings. Investigators who are relatively more concerned with the methodological soundness of their work generally choose the first course of action, while those placing more value on relevance take the latter route.

There is no doubt in the mind of this researcher that there is a profound crisis in almost all educational systems in Latin American countries. There is also the strong suspicion that the educational crisis is contributing to a continuous deterioration of the quality of human resources throughout the region, which, in turn, may be the prime cause of the economic difficulties and political instability characteristic of these countries. These hypotheses are widely shared by serious observers of Latin American affairs. Educational and manpower research, however, has been so sporadic, fragmented and insufficiently funded that hard data is not available to document the crisis in the rigorous tradition of leading research institutions. Yet, the severity and importance of the educational crisis is such that it justifies obtaining evidence by whatever means available. To accommodate these factors, the methodological

organization of this effort combines several sources and kinds of relevant materials grouped in the following categories:

- Official and semi-official statistics such as expenditures in education, student enrollments and flows (repetitions, promotions, etc.).

- Direct observation of the workings of educational systems, especially regarding decision-making processes, managerial styles, resource allocation mechanisms, and inter-institutional relationships.

- Conversations and interviews with numerous experts and observers familiar with Latin American education, economic development, and human resource issues.

- Structured interviews with teachers and other expert personnel in five of the six countries investigated for this paper (interviews could not be held in El Salvador because vacations had started at the time of the visit).

- UNESCO/OREALC's report on the educational situation of Latin America and the Caribbean.[1]

The first category is the traditional source of the professional researcher. It presents two major limitations. First, the information available is not always reliable since there are either several versions of the same variable, as happens frequently with financial data, or is not subject to verification, as is the case with student enrollment and flow statistics. Second, there is insufficient information. In some cases, variables are available for a number of years but not for all. In other cases, important information is not collected at all or does not come with the appropriate breakdown. Such breakdowns are not necessarily for the exclusive use of the fastidious researcher. In many cases, the data necessary to carry out the most important forms of analysis are the same ones necessary for decision making and are not available. A case in point is the composition of educational expenditures (salary and non-salary items) for each level of education. Cases like this and their implications will be discussed in more detail as they arise in the following pages.

A study of the educational situation of any of these countries based on official or other statistics is not feasible, unless significant amounts of resources are invested in the effort to dig up the necessary information. Even if resources were available, such an effort would not be sufficient since many events are simply not registered and records seem to be destroyed or lost after some time in some of the countries. In addition, there is a great deal of qualitative information related to the workings of

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1 Situación Educativa de América Latina y el Caribe, 1980-1987, prepared under the direction of Ernesto Schiefelbein for UNESCO/OREALC, Santiago Chile, 1990.

educational systems (from the office of the minister to the individual school) that could not be captured in statistical form.

Therefore, direct observations and personal perceptions and opinions, though not easily replicable, are indispensable for composing a thorough picture of the problem at hand. These kinds of sources, as mentioned in bullets two and three above, are also critical to offset the insufficiencies of quantitative information. Perhaps the most important example in this case is the lack, in most countries, of information about academic achievement and its evolution as a measure of the quality of the educational product at any level.

The preparatory work for this paper included field visits to the six countries involved in an attempt to update some of the statistical information. The statistical "expedition" took about one week per country, sufficient only to gather what was readily available and little or no more. The actual availability of statistics is definitely better than what the researcher can find in a short visit. There is never enough time or money to a) get the required permits from different levels of the bureaucracy; b) convince the holders of the information to collaborate (sometimes expensive mainframe computer time is required and must be paid for); and, c) sift through all the documents and primary records. This exercise in "statistical paleontology" is more appropriate to an academic effort. Nevertheless, statistical resources had to be updated for the purposes of this investigation given its direct policy implications.

Each field visit was also used to interview about ten teachers and/or individuals familiar with current education problems at the primary level in five of the six countries (mentioned in the fourth bullet above). A structured questionnaire was administered anonymously to the selected individuals.[2] The objective was simply to confirm or refute certain assumptions or working hypotheses of the investigation, mainly, the existence of recent efforts to measure academic achievement and the perception of a decline in the quality of education. The results of this survey are discussed elsewhere in this paper.

The material reported in the fifth bullet, the UNESCO/OREALC study, represents an important source of information that complements ours in several ways. Its findings are generally consistent with this paper's. The report implicitly confirms the statistical insufficiencies mentioned already, especially in the areas of expenditures and academic achievement.

In synthesis, the methodological approach followed in this paper is a compromise between the need to be rigorous and the need to expose a situation whose implications for the future should not be ignored. Most of the findings reported here are the result

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[2] The selection was not strictly random but can be considered as such, since the objectives of the questionnaire were not announced in advance, and the individuals were chosen from several sources in the different countries.

of the author's direct observations of education systems in Latin America over the last sixteen years first as a researcher, then as a university professor and, more recently, as a consultant and advisor. The findings are generally accepted as valid by persons knowledgeable of current Latin American education and economic conditions. The statistical data presented here do not contradict the findings and, at times, clearly support them.

B. Definitions of Basic Concepts

Before we proceed, it is important to define some of the concepts that are frequently used throughout this paper. The objective is not academic, but pragmatic. There are many terms that are used in education with different or ambiguous meanings. Some of the terms have been borrowed from other disciplines while others are new versions of old concepts. What matters, however, is that we use a unified language in order to communicate effectively, first about the nature of the problem, and then about the possible solutions.

Output. This is the intended result of a given process. In the case of education, there are several forms of output for each level of education. Part of the output is the number of graduates (the quantitative dimension) and part is the educational competence and character of the graduates (the qualitative dimension). The educational policies that prevail in Latin America give the impression that the desired output of the educational system is the maximization of coverage and access. The distinction between kinds of output is critical for the analysis in this paper.

Inputs. These are all those physical, human and financial resources or elements that must enter a given process to generate a certain output. The typical inputs in educational processes are the students and their backgrounds, the proficiency of the teachers, the availability and kind of instructional materials, and school equipment and facilities.

Efficiency. The concept of efficiency is related to the educational process and the degree of utilization of the inputs or resources involved. A process is said to be more efficient than another if the former is completed with fewer resources than the latter and achieves the same output. Efficiency reflects a relationship between inputs and their corresponding output. For instance, to produce a sixth-grade graduate, at a given standard of quality, some schools or entire educational systems may need fewer resources than others. Repetition is a phenomenon associated with lower efficiency because it forces the additional use of resources in the same individual. The most efficient educational systems, therefore, are capable of producing the most output with a given amount of resources.

Effectiveness. This concept is related to the impact of a given action. Effectiveness measures ability to reach desired results. A teacher is effective if capable of making students achieve academically. An education system is effective if it is capable of graduating many students with high standards. Something can be effective without being efficient, for instance, if graduating many good students is achieved at too high a cost.

Quality of Education. In this paper, the concept of quality of education is strictly defined as the quality of the final product, not the quality of the educational process nor the quality of its inputs. The final educational output can, in principle, be measured by how much students achieve with respect to cognitive and non-cognitive educational objectives. There has been a persistent tendency to confuse the quality of the school inputs (good textbooks and well-trained teachers) with the quality of the educational outcome at each point of termination or graduation (well-educated students). We all know that measuring students' academic achievement is more difficult and, therefore, more expensive than observing whether specified school inputs are present or not in different educational systems. There is no guarantee that the mere presence of certain school inputs will produce the desired results at the end of the educational process.

When we pursue quality targets only in terms of inputs and not of outputs, we not only eliminate the most effective instrument of accountability of an educational system, but we help deviate attention away from the real educational problems. This consideration is particularly critical in societies where there are tendencies to manage public education systems for short-term gains (political or otherwise), a condition that generally coexists with little or no commitment to long-term aspirations of excellence in education. The quality of school inputs (or a minimum level of them in a certain combination) is a necessary condition to achieving quality in the outputs, but not a sufficient one.

Another frequent application of the concept of quality is found in references made to the internal efficiency of school systems. Sometimes it is said that improvements in quality are equivalent to reduction of dropout and repetition rates. This not only represents a serious misunderstanding of the concept of quality of education, but also a confusion of ideas regarding the interrelationships between quality standards and the ability of a student to stay in the system. For instance, if a school applies higher quality standards and requires higher achievement scores for students to be promoted to the next grade, we can expect increases in the numbers of repeaters and dropouts in that school. The same is valid for a school district or an entire national system.

Under these conditions, what is quality? How can we clearly differentiate between the quality of the system and the quality of the product of the system? The term "quality" must be reserved to characterize the final product of the educational process. As in the output of a kitchen, we should not be satisfied with the quality of the

ingredients (inputs). The proof of the pudding is in the eating. The proof of the educational output is in its ability to produce economic and socially useful graduates.

Human Resource Endowment and its Quality. At one given point in time, the population of a society and its educational and cultural composition represent its human wealth, human resource endowment or stock of human capital. All three terms may be used synonymously. The idea is analogous to other concepts of non-human wealth such as a society's stock of natural resources, its gold and foreign exchange reserves, the productive capacity of its agriculture, or the installed capacities in the other industries. Here, the term human resource endowment is preferred over the others because it suggests a much richer content, in terms not only of the productive capacities of a population, but also from a more humanistic point of view.

Although the human resource endowment cannot be measured as we measure the level of foreign exchange reserves or other kinds of stock, it is obviously a critical concept since it represents the most important pool of resources in the productive capacity of any society. As with any other stock, the human resource endowment grows or decreases with time, depending on the combination of forces that feeds or depletes it. Its most important source of growth is the educational activity of a society in all its forms, ranging from the education individuals receive in their families and other non-formal socialization processes, to the most formal processes such as those imparted in schools, training centers and universities. The human resource endowment can grow, too, as result of immigration flows, as the history of the United States demonstrates.

By the same token, the human resource endowment can suffer losses over time due to educational and cultural declines, migration, physical catastrophes and wars. Not being a variable that can be easily measured or even observed systematically with a minimum degree of accuracy, changes in the human resource endowment, positive or negative, are difficult to perceive over short periods of time, particularly if those changes result from changes in the quality of the educational outputs of a society. Changes due to migratory patterns can be more easily detected if they occur with sufficient intensity. For instance, that El Salvador's human resource endowment has been reduced directly and indirectly by the war is a plausible assumption. Something similar could be said about Nicaragua during the same period of time as a result of the previous administration's policies.

There are no simple or universally acceptable ways in which we can define the quality of a group of individuals, let alone the quality of the human capital of an entire society. On the other hand, a society that has large numbers of individuals who are highly skilled, self-disciplined, law-abiding citizens, who are able to work in teams, and who are productive, dependable, creative and entrepreneurial, is a society with high human resource quality. Despite the relative imprecision of the concept, the qualitative nature of the human wealth of a society is essential for the arguments

presented here. The quality of the education received by the individuals obviously determines the quality of the total endowment.

The most important mission of an educational system is to contribute to the quantitative growth and qualitative enhancement of the society's human resource endowment. The final accountability of an educational system lies on its impact on society, and not simply on how many students are enrolled and how many are promoted. In its economic dimension, education is an investment process, a social and individual investment in the human resource endowment, where the resources dedicated to educate are expected to yield a positive return. The development of the stock of human wealth should contemplate not only its humanistic dimension but also its productive and economic aspects.

It is imperative to keep in mind that all educational systems require resources generated by the economy at large. In other words, there is a circular interdependence between the economy and the education system. The latter affects the human resource endowment which contributes to the levels of production (and resource availability) of the former. Therefore, even if we want an education system that maximizes the humanistic dimension of education, the same system must give minimum attention to the development of productive skills (presumably in competition with the humanistic dimension) in order to at least warrant the production of the resources that the education system needs.

Nominal and Real Variables. Many of the variables used in economic and financial analysis of education are measured in monetary terms, e.g., levels of expenditures, salaries, and costs. The figures representing these variables are called, by economists, "nominal" figures. These figures are actually used in day-to-day transactions by the general public and go into accounting and statistical records. During inflationary periods, however, when the prices of all goods and services of an economy increase at certain rates, those figures become meaningless for comparisons between different periods due to the distorting effects of inflation.

For instance, a salary of $2,000 per month in 1985 is worth much less today due to all the accumulated increases in prices since that year. Let us say that the same person is making $5,000 per month today. The question is whether that person is better off or not. His/her **nominal** salary is now 1.5 times or 150 per cent greater than in 1985, but can he/she buy 1.5 more goods? An affirmative answer is only possible if all prices remained constant during the entire period. If, on the other hand, the general level of prices--as measured by the corresponding statistical index--increased, for instance, 100 per cent, the **real** salary, at 1985 prices is only 50 per cent higher or $3,000 per month (in the economists' jargon) at constant prices of 1985.

It is obvious that comparing nominal figures of any kind between different periods of time is a risky exercise since they may be distorted by inflation. In order to eliminate

the effect of inflation and make meaningful comparisons, it is necessary to adjust or "deflate" the corresponding figures using a given year as a base. This is why nominal figures are shown in tables under the note "at current prices" (meaning that no adjustment for inflation has been made to transform them into real figures). Real figures are always accompanied by a note indicating that the figures are adjusted as if the prices were kept constant at a given year.[3]

This distinction is indispensable to correctly interpret financial data on education. In many Latin American countries, expenditures on education seem to have risen significantly when the figures are given nominally and not in real terms. When deflated, though, the actual allocation of funds (in real terms) often shows that what appeared as an increase is, in reality, a significant decrease, disguised by the effects of inflation. In fact the word itself, inflation, must be taken literally. As discussed in the following pages, the results of the analysis can change dramatically when comparisons are made with real figures.

The Economic Dimensions of Education. The economic aspects of education are generally perceived in relation to costs and financing of educational processes. Less frequently, attention is paid to issues related to the human capital theory of educational decisions.[4] Yet many of the economic dimensions of education are generally neglected by those in charge of educational development policies. The following questions provide several examples of neglected issues:

- How much should a society spend on education? How much can a society afford to spend on education? If the resources to provide quality education for all are insufficient, how should they be distributed among the population? How much should be spent on primary education, on secondary, and on universities?

- If public funds are insufficient, how much should a given country rely on private funding or on external borrowing to provide quality education for all?

- How much should a society spend on quality of education and how much on coverage? What are the limits of universal education in the presence of high quality standards?

- What kind of education should be offered at the different school levels to enhance the quality (productivity) of the human resource endowment of a society? What are the role and limits of the school system? How can creativity,

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[3] The choice of base year is irrelevant, since the proportional changes between years are always the same.

[4] Many of these concepts, however, are misinterpreted and erroneously applied. A case in point is the frequency with which rates of return to investment in human capital are perfunctorily applied to justify projects in search for automatic solutions of educational development problems.

entrepreneurship, democratic values and many other desirable educational objectives be best produced?

- It is well known that children whose parents have little education show low academic achievement scores and attainment rates. Under what financial, pedagogical and organizational conditions can the school system compensate for those family background insufficiencies? Under what set of conditions is pre-school a good investment for the society at large?

- What is the most socially efficient level of salaries and benefits for teachers? When should teachers retire and with what levels of pensions? Should teacher benefits be determined by national collective bargaining or by another mechanism? What kind of teacher can a community or a nation afford and how many?

- How much should be spent on salaries, on instructional materials, on maintenance and on new investments? How much should be spent on administration?

The importance of these questions is obvious but they are not raised here to demonstrate that economic principles should predominate over other considerations in educational decision-making. Economics, as a discipline, is centrally concerned with choice processes and can help in making good decisions. The main reason to introduce some economic considerations is to make the decision-making process more efficient from the point of view of resource utilization. Efficiency considerations become critically important when universal coverage goals exceed the levels of available resources.

III. RECENT TRENDS IN EDUCATIONAL FINANCING

The poor quality and limited availability of educational statistics, especially in the financial area, are major obstacles to the analysis and critical evaluation of educational systems in most countries of the region. In fact, before any analysis is made of the available data, the first major finding of any research or evaluation effort is precisely about the state of the information systems. The lack of information becomes information in itself. In this case, it reveals an important aspect of the structural deficiencies of the decision-making and management styles that prevail in many, if not most, educational systems in the region.

Conversations with highly placed officials in ministries of education rapidly show that they rarely know the most recent trends in educational spending in their ministries. For instance, they do not know whether the country is allocating more or less money to primary or any other level of education, whether enough is being spent on

maintenance of buildings and equipment, or whether the teachers' standard of living is increasing or decreasing and if their salaries are sufficiently high to attract talented young people to the teaching profession. It is obvious that the lack of basic information put in evidence, by default, some of the decisions that **are not** being made in support of educational development.

It is also important to point out that the available data also present serious problems of consistency and reliability. Frequently, there are several statistical versions of the same variable, especially regarding expenditures, and it is not always easy to choose the right figures. Often, time series are interrupted or lost for a variety of reasons, and they cannot be recovered without a considerable effort. The reader should keep in mind that in these countries research facilities, libraries and even documentation centers in government agencies are always short of resources and cannot offer the full range of services that thorough research efforts demand.[5]

Regardless of these limitations, the available data show trends that shed some light about the performance of education systems. As mentioned earlier, the emphasis is placed on primary education in the public sector, although some considerations are occasionally made regarding the other levels. All the figures representing monetary units, unless otherwise mentioned, are in real terms, i.e., deflated or adjusted to eliminate the distorting effects of inflation and make comparisons between different points in time meaningful.

A. A Brief Introduction to the First Six Tables

There is one master table for each of the six selected countries, Tables 1 through 6. They show five basic variables: Gross Domestic Product, Total Government Expenditures, Total Educational Expenditures, Expenditures in Primary Education (in the case of Costa Rica, they were reported jointly with secondary), and Primary School Enrollment. These variables appear respectively in the second, fourth, sixth, eighth, and thirteenth columns from the left. At the right of each of the five basic variables, there is a column showing its annual rate of growth. Columns ten, eleven, twelve, and fourteen show the evolution of important proportions of expenditures that are explained in subsequent sections. Some cells in the tables are empty or have the indication "n.a." meaning not available. The empty cells indicate that the corresponding figure cannot be calculated because the base figures are not available in the same table. Non availability has been applied liberally, indicating in some cases statistics that were not available at the time of the survey or that, even if available, showed inconsistencies which prevented their publication. Due to lack

[5] The lack of financial data in education seems reflected in its almost total absence in the UNESCO/OREALC report (op. cit.).

Table No. 1
COSTA RICA: EXPENDITURE ON EDUCATION
Millions of Colones at 1989 Prices

YEAR	GROSS DOMEST PROD (GDP)	ANNUAL GROWTH RATE (%)	GOVERN EXPEND (GE)	ANNUAL GROWTH RATE (%)	TOTAL EDUC EXPEND (TEE)	ANNUAL GROWTH RATE (%)	PRIM&SEC EDUC EXPEND (PEE)	ANNUAL GROWTH RATE (%)	TEE/GDP (%)	PEE/TEE (%)	PEE/GDP (%)	PUBLIC PRIMARY ENROL(a)	EXPEND/ STUDENT (Colones)	ANNUAL GROWTH RATE (%)
1979	348,036		n.a.		n.a.		n.a.					353.9		
1980	350,653	0.75	n.a.		n.a.		n.a.					348.7		
1981	342,730	-2.26	n.a.		18,469		6,216		5.4	33.7	1.81	348.0	17,862.5	
1982	317,710	-7.30	59,730		12,859	-30.37	4,705	-24.31	4.0	36.6	1.48	342.5	13,737.3	-23.09
1983	326,924	2.90	60,808	1.81	15,296	18.95	5,087	8.12	4.7	33.3	1.56	343.8	14,796.9	7.71
1984	353,078	8.00	63,907	5.10	15,740	2.90	5,250	3.21	4.5	33.4	1.49	350.6	14,975.2	1.20
1985	355,549	0.70	68,621	7.38	15,249	-3.12	5,072	-3.39	4.3	33.3	1.43	362.9	13,977.5	-6.66
1986	375,105	5.50	70,520	2.77	16,680	9.38	5,473	7.90	4.4	32.8	1.46	380.4	14,388.4	2.94
1987	393,485	4.90	71,614	1.55	15,247	-8.59	5,823	6.38	3.9	38.2	1.48	393.3	14,804.4	2.89
1988	408,437	3.80	67,801	-5.33	16,577	8.72	6,421	10.20	4.1	38.7	1.57	409.6	15,676.3	5.89
1989	428,859	5.00	69,475	2.47	n.a.		n.a.					420.1		

a) Includes pre-primary (until 1984) and adults. Figures in thousands.

SOURCES: Banco Central de Costa Rica and Ministry of Education

Table No. 2

DOMINICAN REPUBLIC: EXPENDITURES ON EDUCATION

Millions of Pesos at 1988 Prices

YEAR	GROSS DOMEST PROD (GDP)	ANNUAL GROWTH RATE (%)	GOVERN EXPEND (GE)	ANNUAL GROWTH RATE (%)	TOTAL EDUC EXPEND (TEE)	ANNUAL GROWTH RATE (%)	PRIMARY EDUC EXPEND (PEE)	ANNUAL GROWTH RATE (%)	TEE/GDP (%)	PEE/TEE (%)	PEE/GDP (%)	PUBLIC PRIMARY ENROL(a)	EXPEND/ STUDENT (Pesos)	ANNUAL GROWTH RATE (%)
1971	13,638		n.a.		n.a.		n.a.					n.a.		
1972	15,063	10.45	2,532		n.a.		n.a.					728.0		
1973	17,011	12.93	2,807	10.87	n.a.		n.a.					n.a.		
1974	18,030	5.99	3,136	11.72	n.a.		n.a.					n.a.		
1975	18,966	5.19	3,504	11.72	249		n.a.		1.31			794.0		
1976	20,242	6.73	2,974	-15.12	308	23.58	108.6		1.52	35.29	0.54	n.a.		
1977	21,253	4.99	2,925	-1.65	286	-7.20	99.2	-8.70	1.34	34.72	0.47	n.a.		
1978	21,700	2.11	3,162	8.08	322	12.87	126.5	27.59	1.49	39.25	0.58	860.0	147	
1979	22,686	4.54	4,210	33.17	443	37.46	178.1	40.78	1.95	40.19	0.79	n.a.		
1980	24,062	6.06	3,867	-8.16	417	-5.99	161.8	-9.12	1.73	38.85	0.67	909.0	178	
1981	25,023	3.39	3,781	-2.21	452	8.47	176.0	8.72	1.81	38.94	0.70	934.0	188	5.81
1982	25,429	1.62	3,246	-14.16	474	4.88	196.7	11.78	1.86	41.50	0.77	955.0	206	9.32
1983	26,589	4.56	3,698	13.92	468	-1.32	206.0	4.73	1.76	44.05	0.77	983.0	210	1.74
1984	26,664	0.28	3,306	-10.60	451	-3.64	201.1	-2.37	1.69	44.63	0.75	949.0	212	1.13
1985	25,976	-2.58	3,549	7.34	400	-11.20	182.7	-9.17	1.54	45.65	0.70	926.0	197	-6.91
1986	26,796	3.16	3,476	-2.04	343	-14.31	154.9	-15.17	1.28	45.19	0.58	934.0	166	-15.90
1987	28,975	8.13	4,388	26.23	350	2.16	161.6	4.31	1.21	46.14	0.56	923.0	175	5.56
1988	29,232	0.89	4,877	11.15	330	-5.66	156.1	-3.42	1.13	47.23	0.53			

a) Figures in thousands.

SOURCES: Banco Central and Secretaria de Estado de Educacion, Bellas Artes y Culto

Table No. 3

EL SALVADOR: EXPENDITURES ON EDUCATION

Millions of Colones in 1962 Prices

YEAR	GROSS DOMEST PROD (GDP)	ANNUAL GROWTH RATE (%)	GOVERN EXPEND (GE)	ANNUAL GROWTH RATE (%)	TOTAL EDUC EXPEND (TEE)	ANNUAL GROWTH RATE (%)	PRIM EDUC EXPEND (PEE)	ANNUAL GROWTH RATE (%)	TEE/GDP (%)	PEE/TEE (%)	PEE/GDP (%)	PUBLIC PRIMARY ENROL(a)
1970	2,394		259		70		40		2.92	57.14	1.67	n.a.
1971	2,509	4.80	326	25.87	100	42.86	46	15.00	3.99	46.00	1.83	n.a.
1972	2,646	5.46	338	3.68	98	-2.00	65	41.30	3.70	66.33	2.46	n.a.
1973	2,780	5.06	352	4.14	95	-3.06	55	-15.38	3.42	57.89	1.98	n.a.
1974	2,958	6.40	419	19.03	105	10.53	57	3.64	3.55	54.29	1.93	n.a.
1975	3,123	5.58	473	12.89	116	10.48	62	8.77	3.71	53.45	1.99	n.a.
1976	3,247	3.97	481	1.69	129	11.21	70	12.90	3.97	54.26	2.16	n.a.
1977	3,444	6.07	514	6.86	134	3.88	73	4.29	3.89	54.48	2.12	n.a.
1978	3,665	6.42	596	15.95	132	-1.49	77	5.48	3.60	58.33	2.10	n.a.
1979	3,602	-1.72	608	2.01	122	-7.58	66	-14.29	3.39	54.10	1.83	n.a.
1980	3,289	-8.69	618	1.64	137	12.30	93	40.91	4.17	67.88	2.83	n.a.
1981	3,017	-8.27	694	12.30	128	-6.57	n.a.		4.24			n.a.
1982	2,848	-5.60	670	-3.46	112	-12.50	n.a.		3.93			n.a.
1983	2,870	0.77	582	-13.13	93	-16.96	n.a.		3.24			771
1984	2,936	2.30	579	-0.52	94	1.08	n.a.		3.20			795
1985	2,994	1.98	507	-12.44	88	-6.38	n.a.		2.94			833
1986	3,013	0.63	401	-20.91	75	-14.77	n.a.		2.49			874
1987	3,092	2.62	453	12.97	72	-4.00	n.a.		2.33			873
1988	3,185	3.01	401	-11.48	n.a.		n.a.					

a) Figures are in thousands

SOURCES: Banco Central de Reserva and Ministerio de Educacion

Table No. 4

GUATEMALA: EXPENDITURES ON EDUCATION

Millions of Quetzals at 1989 Prices

YEAR	GROSS DOMEST PROD (GDP)	ANNUAL GROWTH RATE (%)	GOVERN EXPEND (GE)	ANNUAL GROWTH RATE (%)	TOTAL EDUC EXPEND (TEE)	ANNUAL GROWTH RATE (%)	PRIM EDUC EXPEND (PEE)	ANNUAL GROWTH RATE (%)	TEE/GDP (%)	PEE/TEE (%)	PEE/GDP (%)	PUBLIC PRIMARY ENROL(a)	EXPEND/ STUDENT (Quetzals)	ANNUAL GROWTH RATE (%)
1971	13,606		1,130		188.2		75.2		1.38	39.94	0.55	480.5	156.5	
1972	14,604	7.33	1,414	25.10	225.4	19.75	109.2	45.22	1.54	48.44	0.75	507.7	215.1	37.44
1973	15,594	6.78	1,324	-6.34	254.5	12.90	115.2	5.51	1.63	45.27	0.74	518.2	222.3	3.37
1974	16,589	6.38	1,461	10.37	206.1	-19.00	125.7	9.12	1.24	60.99	0.76	550.2	228.5	2.78
1975	16,912	1.95	1,423	-2.61	190.5	-7.57	116.6	-7.29	1.13	61.17	0.69	579.1	201.3	-11.92
1976	18,161	7.39	1,981	39.20	208.4	9.40	120.4	3.30	1.15	57.76	0.66	n.a.	n.a.	
1977	19,580	7.81	1,911	-3.52	199.0	-4.53	105.3	-12.55	1.02	52.91	0.54	627.6	167.8	
1978	20,558	5.00	2,105	10.12	212.1	6.57	97.0	-7.84	1.03	45.76	0.47	668.3	145.2	-13.45
1979	21,527	4.71	2,235	6.21	269.8	27.21	100.7	3.75	1.25	37.32	0.47	674.4	149.3	2.82
1980	22,333	3.75	2,633	17.77	312.9	15.98	114.1	13.34	1.40	36.47	0.51	693.0	164.7	10.30
1981	22,482	0.67	2,978	13.14	317.4	1.44	98.8	-13.44	1.41	31.12	0.44	728.7	135.6	-17.68
1982	21,684	-3.55	2,435	-18.23	303.4	-4.40	98.3	-0.44	1.40	32.41	0.45	723.7	135.9	0.24
1983	21,131	-2.55	1,993	-18.16	279.7	-7.81	89.9	-8.57	1.32	32.14	0.43	801.2	112.2	-17.41
1984	21,231	0.47	1,974	-0.99	282.2	0.88	90.7	0.86	1.33	32.14	0.43	848.2	106.9	-4.73
1985	21,106	-0.59	1,743	-11.70	252.2	-10.64	83.5	-7.86	1.19	33.14	0.40	882.1	94.7	-11.40
1986	21,135	0.14	2,179	25.04	266.5	5.68	91.3	9.20	1.26	34.24	0.43	908.1	100.5	6.07
1987	21,884	3.54	2,250	3.27	310.8	16.62	112.5	23.25	1.42	36.19	0.51	962.4	116.9	16.29
1988	22,736	3.89	2,476	10.03	324.9	4.55	125.9	11.91	1.43	38.74	0.55	1,005.5	125.2	7.12

a) Figures in thousands.

SOURCES: Banco de Guatemala and Ministerio de Educacion

Table No. 5

HONDURAS: EXPENDITURES ON EDUCATION

Millions of Lempiras at 1978 Prices

YEAR	GROSS DOMEST PROD (GDP)	ANNUAL GROWTH RATE (%)	GOVERN EXPEND (GE)	ANNUAL GROWTH RATE (%)	TOTAL EDUC EXPEND (TEE)	ANNUAL GROWTH RATE (%)	PRIM EDUC EXPEND (PEE)	ANNUAL GROWTH RATE (%)	TEE/GDP (%)	PEE/TEE (%)	PEE/GDP (%)	PUBLIC PRIMARY ENROL(a)	EXPEND/ STUDENT (Lempiras)	ANNUAL GROWTH RATE (%)
1981	4,153		619		142		83		3.42	58.45	2.00			
1982	4,072	-1.95	609	-1.62	155	9.15	81	-2.41	3.81	52.26	1.99	672	120.5	
1983	4,061	-0.27	658	8.05	157	1.29	83	2.47	3.87	52.87	2.04	704	117.9	-2.19
1984	4,174	2.78	683	3.80	166	5.73	91	9.64	3.98	54.82	2.18	740	123.0	4.30
1985	4,308	3.21	742	8.64	182	9.64	97	6.59	4.22	53.30	2.25	774	125.3	1.91
1986	4,427	2.76	687	-7.41	195	7.14	103	6.19	4.40	52.82	2.33	810	127.2	1.47
1987	4,612	4.18	769	11.94	225	15.38	117	13.59	4.88	52.00	2.54	840	139.3	9.54
1988	4,787	3.79	793	3.12	228	1.33	126	7.69	4.76	55.26	2.63	879	143.3	2.91

a) Figures are in thousands

SOURCES: Banco Central de Honduras and Secretaria de Educacion Publica

Table No. 6

PANAMA: EXPENDITURES ON EDUCATION

Millions of Dollars at 1989 Prices

YEAR	GROSS DOMEST PROD (GDP)	ANNUAL GROWTH RATE (%)	GOVERN EXPEND (GE)	ANNUAL GROWTH RATE (%)	TOTAL EDUC EXPEND (TEE)	ANNUAL GROWTH RATE (%)	PRIM EDUC EXPEND (PEE)	ANNUAL GROWTH RATE (%)	TEE/GDP (%)	PEE/TEE (%)	PEE/GDP (%)	PUBLIC PRIMARY ENROL(a)	EXPEND/ STUDENT (Dollars)	ANNUAL GROWTH RATE (%)
1971	2,800		612		142		56.6		5.08	39.83	2.02	288	196.6	
1972	2,928	4.58	787	28.50	175	23.08	63.2	11.59	5.98	36.11	2.16	306	206.5	5.03
1973	3,085	5.36	823	4.59	177	1.39	62.1	-1.80	5.75	34.98	2.01	319	194.5	-5.80
1974	3,161	2.45	946	14.90	197	11.03	69.4	11.76	6.23	35.21	2.19	328	211.5	8.70
1975	3,216	1.74	845	-10.61	194	-1.31	68.3	-1.53	6.05	35.13	2.12	342	199.7	-5.56
1976	3,269	1.66	916	8.31	191	-1.93	74.0	8.38	5.83	38.83	2.26	339	218.4	9.34
1977	3,305	1.09	859	-6.19	190	-0.09	76.6	3.53	5.76	40.23	2.32	358	214.1	-1.96
1978	3,628	9.79	957	11.43	199	4.62	79.4	3.66	5.49	39.87	2.19	343	231.6	8.20
1979	3,792	4.51	1,265	32.14	211	5.74	85.9	8.07	5.56	40.75	2.26	340	252.5	9.03
1980	4,366	15.14	1,307	3.30	223	6.02	91.0	6.03	5.12	40.75	2.08	337	270.1	6.97
1981	4,549	4.18	1,426	9.16	229	2.38	83.0	-8.77	5.03	36.31	1.83	335	247.9	-8.23
1982	4,798	5.49	1,821	27.68	240	5.02	76.8	-7.50	5.01	31.98	1.60	337	227.9	-8.05
1983	4,816	0.37	1,509	-17.16	252	5.03	82.1	6.94	5.24	32.56	1.71	336	244.5	7.26
1984	4,796	-0.42	1,568	3.96	243	-3.56	89.7	9.21	5.07	36.87	1.87	339	264.6	8.24
1985	5,023	4.74	1,399	-10.80	254	4.43	89.7	-0.04	5.06	35.30	1.79	340	263.8	-0.33
1986	5,192	3.37	1,773	26.74	270	6.37	89.9	0.26	5.20	33.27	1.73	344	261.4	-0.90
1987	5,317	2.41	1,952	10.09	283	4.83	92.8	3.21	5.33	32.76	1.75	346	268.2	2.61
1988	n.a.		n.a.		n.a.		n.a.					345		
1989	n.a.		n.a.		n.a.		n.a.					349		

a) Figures in thousands.

SOURCES: Direccion de Estadistica y Censo (Contraloria General) and Ministerio de Educacion

of data, Table 3 for El Salvador does not show expenditures per student and the corresponding annual growth rates.

B. The Evolution of the National Economies: A Summary of the 1970s and 1980s

In general, Latin American economies experienced relatively high rates of growth (as reflected by the Gross Domestic Product or GDP) during the nineteen seventies, and slow, at times negative, growth in the nineteen eighties.[6] The countries included here followed the same pattern over the same period, as shown in Tables 1 through 6. The level of total government expenditures (both current and capital expenditures) also experienced similar growth rates in the seventies, in some cases at rates faster than those of the GDP. The figures in the second through fifth columns show that government spending was growing faster than the economy, a possible indication of growth in the size of the public sector. Such growth generally included the expansion of central government programs as well as public enterprises. These levels of growth were often made possible by heavy external borrowing. In fact, external borrowing may be responsible for the frequently sharp variations of the rates of change from one year to the next in the level of total expenditures. In the early nineteen eighties, however, the accumulation of the debt burden plus the steep and unexpected increase in the rates of interest (a large proportion of the external borrowing was in short-term, variable-rate loans) brought many countries to the brink of default and put a sudden stop to the growth of government spending.[7]

The debt included loans of several kinds: bilateral (government to government), multilateral (international funding agencies), and with private banks. In many cases, the debt was contracted to fund public sector activities. The most serious

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6 Gross Domestic Product is a measurement of all the resources produced by an economy in a given period of time, generally a year. GDP is therefore the pool of resources from which most expenditures or activities of a society are funded. For comparative purposes, a rate of growth of the GNP (a comparable indicator) of 3 per cent per annum in the U.S. is considered sluggish. This also has to be related to the rate of growth of the population. In the United States, the average annual rate of growth of the population has been one per cent between 1965 and 1987, while in the Latin American countries selected for this study this indicator fluctuates between 1.2 per cent (El Salvador, 1980-87) and 3.6 (Honduras, the same period). See World Development Report 1989, The World Bank, Oxford University Press, 1989, pg. 214.

7 The international debt crisis became dramatically apparent in August of 1982 with the Government of Mexico's announcement of the possibility of a default, a development that could have provoked the bankruptcy of major American banks if cascading with defaults or arrears in payments by countries such as Brazil, Argentina, Venezuela, and Poland, among many others. Some smaller countries, however, started to feel the consequences of their own excesses in borrowing somewhat earlier, though their size prevented their local problems from reaching an international dimension. Costa Rica was one of them, starting as early as 1979 and requiring severe adjustment measures since them. Few voices were available and fewer were heard regarding the anticipation of this crisis. The lending-borrowing spree of the nineteen seventies had come to a sudden stop, opening a period of great uncertainty generated by the unavoidable economic and fiscal austerity measures with all their good and bad consequences. Perhaps the most important lesson learned is that governments and politicians could become very costly to their nations when given a free hand in spending someone else's money.

consequence of the debt crisis, and of great relevance for this study, is that many countries found themselves committing a very large proportion of their export revenues to service their debt. For instance, in 1987, Honduras dedicated 26.1 per cent of its export revenues to service its debt, while El Salvador's and Guatemala's corresponding proportions were 21 and 25.8. Costa Rica fared better in 1987 with a more moderate but still burdensome 14.3 per cent, down considerably from 1984 when it reached 25.3.[8]

In order to service the debt, the different countries had to severely reduce their level of government expenditures, a fact reflected in Tables 1-6 by the significant reduction in GDP's level or growth rate and in government expenditures in or around 1982. For instance, in Costa Rica, where the debt crisis struck earlier, the economy was stagnant in 1980 and actually decreased in 1981 and 1982, as indicated by the negative signs in the corresponding percentages (see Table 1). The recovery indicated later was fundamentally due to heavy injections of U.S. funds designed to prevent an economic collapse. In view of the political instability of the region during those years, it was assumed that such a collapse would have catastrophic consequences and should be prevented if at all possible.[9]

The Dominican Republic, however, showed the impact of the crisis in 1980 and 1981 when it reduced the level of government expenditures, while the economy continued growing as it had for the last decade (see Table 2). It was not until 1984 and 1985 that the crisis made a dent in the level of economic activity for a short time. The worst case is presented by El Salvador, as reflected in Table 3, where the debt crisis was overshadowed by the internal strife whose effects appear to have reduced economic activity since 1979. In that country, the level of real GDP was, in 1988, the same level as 1975. Total government expenditures suffered a similar evolution. Guatemala (Table 4) shows a decrease in economic activity in 1982 and 1983 with drastic reductions in government expenditures of 18 per cent per annum for both years. Honduras (Table 5) also shows a slight negative response to the crisis in 1982, while Panama does not show any response until 1983 (Table 6).

In evaluating aggregate statistics about economic activity, it is also important to keep in mind that economic expansions or contractions do not affect all families equally. The limited information about how income is distributed among households in Latin American countries shows sharp inequalities. Panama presents the worst case, where the top 10 per cent of the families received 44.2 per cent of all the income and the top 20 per cent received 61.8 per cent.[10] Comparable figures for the United States are

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8 The corresponding figures for Panama are much lower but reportedly very high at the time of this paper. No figures were available for Dominican Republic for that period. See World Bank, ibid., pg. 208.

9 At the time, Costa Rica had the only democratically elected government in the region.

10 Based on data for 1973, where the last household budget survey was taken, ibid., pg. 222.

23.3 and 39.9 per cent; for Costa Rica, 39.5 and 54.8 per cent; and for El Salvador, 29.5 and 47.3 per cent. The poorest 40 per cent of the families receive only 7.2 per cent of all income in Panama, 17.2 in the U.S., 12 in Costa Rica, and 15.5 in El Salvador.[11] In synthesis, in a given country and under certain conditions, there can be aggregate economic growth without everybody benefiting from it.

C. The Evolution of Public Expenditures in Education

The proportions of total government expenditures to GDP vary across countries, which fundamentally results from their different tax bases. Guatemala, for instance, is the country with the smallest rates of government expenditures to GDP varying, over the years, between 8.3 and 13.2 per cent (not explicitly shown in the table). Panama lies at the other extreme, with rates varying between 21.9 and 38 per cent. While the GDP measures the society's availability of resources, the total magnitude of government expenditures measures the portion of those resources from which public education (among other things) is funded. The tax base and the ability to collect fiscal revenues determine the principal financial constraint to public educational development.

The level of total expenditures in education generally followed the same overall trend as total public spending in the countries shown, although there were sharp variations and contrasts from year to year. The predominant trend for total public expenditures in all three levels of education (primary, secondary and university) in the seventies was expansionary, while the trend of the eighties was downward sloping in several cases.

Some countries suffered abrupt declines in their level of real expenditure during the worst part of the debt crisis. For instance, Costa Rica lost more than 30 per cent in 1982 alone (see Table 1, columns 6 and 7), the Dominican Republic lost 28 per cent between 1983 and 1986 (Table 2), and Guatemala more than 36 per cent between 1983 and 1984 (see Table 4). El Salvador presents the steepest decline in total educational expenditures with 46 per cent in the ten years since 1977 (see Table 3). On the other hand, Honduras and Panama registered systematic increases in total educational expenditures over the last decade, as shown in Tables 5 and 6 respectively.

Regarding the evolution of expenditures on public primary education (columns 8 and 9 on Tables 1-6), we can observe that, with the exception of Honduras and Panama (data for El Salvador are not available for this period), the other three countries experienced abrupt declines and recoveries in their annual funding. Expenditures per

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[11] Ibid., pgs. 222-223. The years of the reported data are: 1971 in Costa Rica, 1980 in the U.S., and 1976-1977 in El Salvador.

student enrolled in Costa Rica mirror fluctuations in total expenditures in education, possibly because the increases in annual enrollment were relatively steady.[12] The data from Panama, on the other hand, show that some of the increases in primary expenditures per student were influenced by decreases in the number of students enrolled from 1978 to 1980.[13] Before enrollment figures decline and after they recover, the increases in expenditures per student are due only to increases in total educational expenditures. Although expenditures per student declined severely in the Dominican Republic in 1985 and 1986, they recovered in 1987, the latest year for which data are available. Guatemala presents the worst case of the group, since expenditures per primary student fell almost 60 per cent between 1974 and 1985, recovering 32 per cent in the next three years.[14] Chart 1 provides a graphic portrayal (although fragmentary) of the evolution of real expenditures per student.[15]

It is important to point out that annual variations, especially declines, in expenditures do not happen necessarily as a result of discretionary government actions reducing the nominal allocations of funds in a given year. When government budgets are formulated and enacted into laws, future inflation is not always thoroughly taken into account, let alone accurately predicted. When the future rate of inflation is underestimated, the process takes its toll over the year of execution of the budget.

In other words, macroeconomic factors play an important, sometimes crucial, role in the final determination of government expenditures in **real** terms, frequently undermining decisions intended to manage the allocation of real resources. For

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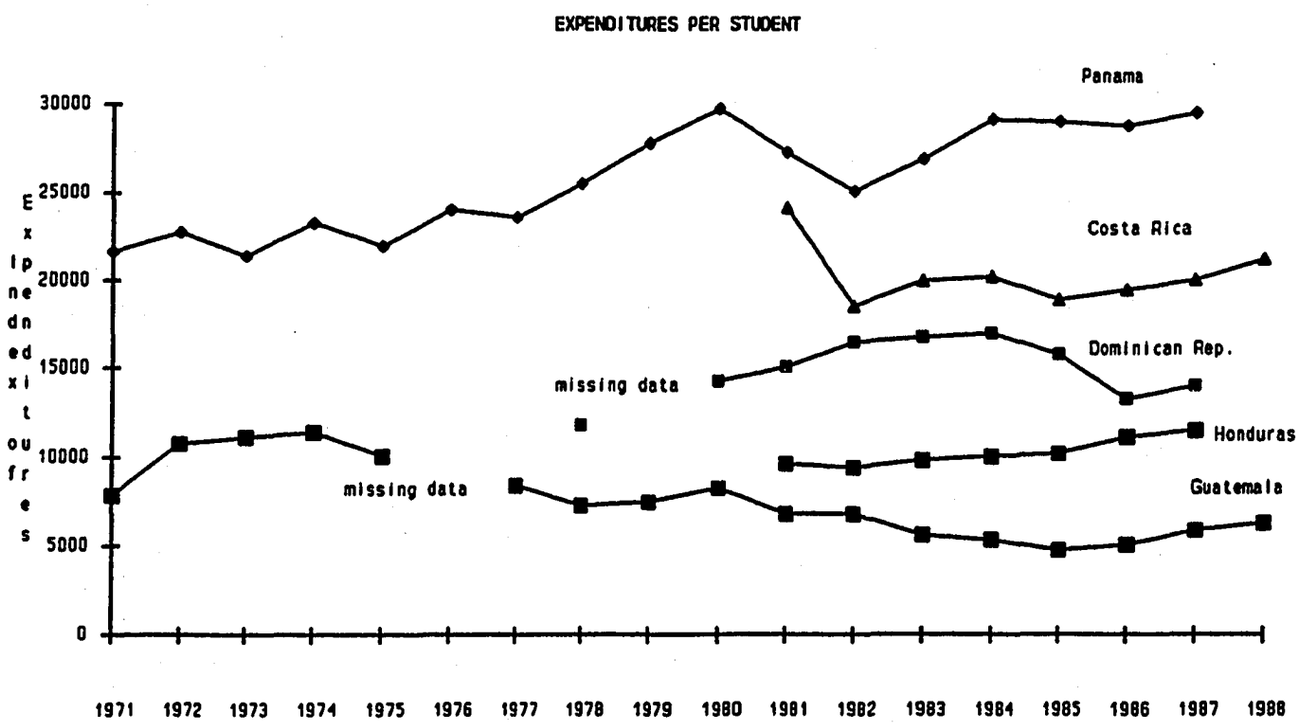
12 For Costa Rica, expenditures on primary education were reported jointly with secondary.

13 These figures correspond to enrollment at the beginning of the school year and, therefore, differ from effective enrollment as would be measured in the middle of the year. In general, a high degree of confidence in these figures is not warranted despite the fact that most evaluators and researchers rarely question their reliability. In conversations with government officials in charge of or familiar with this type of information in several countries, the reliability of the data is seriously questioned. One of the reasons to question the reliability is that the administrative system itself is faulty, the data are never verified and many errors go undetected through the system. Another reason is that those reporting the data in some cases have strong incentives to distort the information, for instance, in case of premiums to teachers or schools which report more students enrolled or fewer repeaters.

14 We must also remember that an unknown proportion of the observed variation is due to errors in measurement or data registration, especially for enrollment figures.

15 The positions of the curves relative to each other does not have any significance, since the values were transformed into an index to facilitate enough separation of the curves for presentation purposes. In the same vein, it is important to point out that intercountry comparisons of expenditures per student are generally meaningless since they would have to be based on the respective calculation of what in economics it is called "purchasing power parities" of the currencies involved. This basically means that a given amount of money, in the currency of any of the countries studied here, buys a certain combination of goods that may be more or less expensive in other countries if purchased by the equivalent amount of money calculated by the going free-market rate of exchange between the relevant currencies. For instance, a teacher in Panama may have a salary that in dollars is more than what a Costa Rican teacher makes, but the prices of the goods purchased by the latter may be sufficiently low as to more than make up for the difference. This type of analytical exercise would be a research project by itself, and cannot be undertaken within the scope of this effort. It may serve, however, to determine which countries could be expected to "purchase" more benefits with one dollar of assistance all other circumstances being equal.

CHART 1


EXPENDITURES PER STUDENT
Expenditures
30000
25000
20000
15000
10000
5000
0
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
Panama
Costa Rica
Dominican Rep.
Honduras
Guatemala
missing data
missing data

instance, as is frequent in Latin American countries, a teacher strike in a certain year could end up in an unanticipated and significant increase in teacher salaries. Obviously, those salaries are defined and paid in nominal terms. Nevertheless, the magnitude of the increase may provoke a fiscal and monetary disequilibrium of such a dimension (especially if the teachers' salary increase was implemented at the time of other public sector salary increases) sufficient to increase the overall level of prices, triggering an inflationary spiral. If there is already an inflationary process taking place, another frequent occurrence in many Latin American countries, the new salary increases will add to the rise in the general level of prices, contributing to more inflation. This is accompanied by a decrease in the **real** value of money, and therefore salaries, because they were raised in **nominal** terms at a level beyond what the economy could take and the government could afford. The increase in prices, if greater than the increase in **nominal** salaries, will make the new salaries buy less than before the increase. Thus the new salaries, even if apparently (nominally) greater, are actually smaller in real terms.

The point to remember here is that the level of expenditures on public education is determined by two sets of factors: explicit (discretionary) decisions regarding the nominal variables and macroeconomic factors that automatically readjust the real levels of resources due to inflation. The lack of understanding of this fact on the part of education policy makers, and teacher union leaders and members has complicated the relations between ministries and unions to the detriment of education. The interactions between discretionary actions and macroeconomic factors should be taken into consideration in a long-run strategy of educational development in these countries, as we shall discuss later in this paper.

D. The Share of Educational Expenditures

Tables 1 through 6 show that the countries with the highest ratio of total educational expenditures to GDP are Panama, with ratios fluctuating between 5.0 and 6.2 per cent, and Costa Rica, with corresponding figures of 3.9 to 5.4 per cent. Both countries present oscillating ratios over the years with a generally downward trend. The Dominican Republic and Guatemala, at the other extreme, present the lowest ratios, with the former never spending more than 1.95 per cent and the latter staying below the 1.6 mark. Honduras and El Salvador are in the middle, with proportions steadily increasing for the former from 3.4 to 4.8 per cent. El Salvador shows increasing ratios during the seventies and early eighties (from 2.9 to 4.3 per cent) with a decline to the low point of 2.3 per cent in 1987, the latest year for which figures were available. According to estimates by UNESCO, the corresponding overall rate for developing countries was 6.0 per cent for the 1975-1985 period, descending

to 5.8 in 1986, while the same ratios for Latin America are consistent with the ones reported here.[16]

A careful examination of Tables 1 through 6 shows that those countries spending a higher proportion of their GDP on education are the same ones that spend a higher proportion of GDP on total government expenditures. This is consistent with the countries' ability to spend corresponding directly to their ability to tax and collect revenues. This fact is frequently neglected when designing regional or worldwide educational development policies for countries that have wide differences in their fiscal and economic capabilities.

The share of primary education in total education expenditures has been relatively steady over the years on a country-by-country basis, although presenting various trends. In Costa Rica, primary and secondary education received only 33.7 to 38.7 per cent of total educational expenditures between 1982 and 1988 (see Table 1) while universities there received up to 45 per cent of the total education budget. The Dominican Republic also presents an upward trend but at a much higher level (see Table 2). The data for El Salvador show inexplicable oscillations from one year to the next, but generally maintain an upward trend. Unfortunately, this series is only available until 1980 (see Table 3). Guatemala follows a gradually declining pattern with a fast recovery in the last three years shown (Table 4). Honduras shows one of the highest proportions for a single year (58.5 in 1981) but follows an overall downward trend afterwards (see Table 5). Panama shows a declining proportion mainly because it spent increasing sums on universities while the total expenditure on primary education remained virtually stagnant (see Table 6).

E. The Composition of Educational Expenditures

What is the meaning of the previous figures and their annual variations? Does more spending per student mean that a better education is being imparted? Do the levels of expenditures shown represent efficient or wasteful spending? Without knowing the composition of expenditures, it is not possible to provide satisfactory answers to these critical questions. Although not abundant, the data available can help us understand some important features about educational financing in these countries.

Expenditures in education, as are those for any other public spending, are generally divided into two major categories: current and capital. Current expenditures are those dedicated to making the system function at each level of capacity. Its main components are typically: salaries and fringe benefits, supplies, maintenance, and administration. Capital expenditures are those dedicated to expanding the capacity

[16] UNESCO/OREALC, op. cit., pg. 13.

of the system or replacing physically depreciated assets. They are targeted mainly at school buildings and equipment. Current expenditures tend to be steadier on a year-to-year basis. One reason for this is that current expenditures are almost entirely determined by salaries, as we will discuss below.

1. Capital expenditures

Capital expenditures frequently provide the basic source of annual variation in total educational expenditure figures. It is not possible to present here a comparative description of these types of expenditures by country.[17] Nevertheless, partial information for some of the countries surveyed will suffice in this analysis. The proportion of capital expenditures in total educational expenditures for Guatemala, for instance, in the period 1981-1988 varies between 0.75 and 4.70 per cent. There is a steady downward trend but the proportions change abruptly from one year to the next. The figures are hard to interpret, since sometimes they include transfers to non-educational activities that are administered by the ministries of education, such as museums, theaters and various cultural affairs.

The proportion of capital expenditures going to primary education is much less, and varies widely on an annual basis. For the period 1974-1988, Panama presents variations in the proportion of capital expenditures to total educational expenditures between 1.46 per cent in 1988 and 10.6 per cent in 1979. The difference with Guatemala is in the level of expenditures, though the trend is equally and markedly downward. In Panama, capital expenditures in education were significant in the seventies and early eighties, but were almost entirely dedicated to universities. During that period, these ratios oscillated widely between one tenth and one third of total expenditures and show a decline since the mid-eighties.

There are no formulas that help determine an ideal or optimal proportion of capital to current expenditures in education. The proportions should obviously vary throughout the years, but wide fluctuations suggest that there is little or no long-term planning. Besides, the magnitude and proportion of optimum capital expenditures for a given level of education would depend on the combination of educational policies and demographic factors. The number of children that reach the age to start school varies according to demographic conditions and is not necessarily always an increasing number. In this respect, it is important to take into account that the demand for school seats depends on demographics and the repetition rate in the school system.

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[17] The main source of financial statistics in education is the accounting system which is designed differently in each country according to financial control needs. For instance, some countries do not break down their expenditures by level of education. Also, there are accounting categories, such as "transfers to other institutions" (sometimes significantly large) that encompass unexplained activities of many kinds, in some cases not even related to education, and that would require a statistical surveying effort beyond the scope and resources of this one.

Both factors also present regional variations that are not anticipated with enough lead time.

There is little or no planning to anticipate and prepare for these fluctuations and changing conditions. Besides, the level of public sector savings available for new investments in many if not most Latin American economies tends to be negligible after allowing for the external debt service. This is one of the reasons why investment needs tend to accumulate over a few years, exploding at a particular point in time and forcing the authorities to act under the pressure of a political crisis. The availability of foreign funds, on the other hand, has become increasingly important in explaining the wide variations in annual spending in many countries, since they have also been increasingly dependent on foreign savings (to borrow from) for almost all public investment.[18]

In view of the debt crisis and the saturation of the ability of many of these countries to borrow more, their education systems are suffering a severe insufficiency of investment funds, both for the replacement of old capacities and the development of new ones. The available data, of course, does not show this. The ministries, on the other hand, rarely know their investment needs on a regular basis. This is one of the areas where managerial deficiencies in education become highly visible.

2. Salaries and other current expenditures

A typical and widely known fact about current educational expenditures is that most of these resources go into salaries, with almost nothing left for educational materials, school and equipment maintenance, teacher training, and supervisory and support resources. A common error, however, is to believe that this situation started in the early nineteen eighties with the advent of the international debt crisis. Many countries reached the end of the seventies spending 98-99 per cent of their current budgets on salaries, mostly for teachers. The international debt crisis, with the crippling effects previously described for most Latin American countries and still a matter of serious concern in the region, only exacerbated an educational crisis that seems to have resulted from an economic development strategy that put almost all the emphasis on government intervention.

During the 1970s, the size of the public sector increased at a much faster rate than the rest of the economy. Employment generation became a major policy goal, a condition that opened the door for the politicizing of many public services, among

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[18] The level of public savings (roughly revenues minus expenditures) has been decreasing in most Latin American countries, a condition that makes them increasingly dependent on foreign borrowing to cover investment needs. Some argue that this has been a result of the very availability of such funds, i.e., the countries' governments are not interested in savings since they can obtain investment funds today that will not be paid for until later, by a different government. This has also contributed to the general level of indebtedness of these countries.

them education at all levels, since this sector generally has the largest payroll. The expansion of educational coverage, a legitimate goal in itself, offered politicians in every country the best opportunity to create employment in large quantities.

The importance of this condition should not be underestimated. In economies that have chronically suffered from high levels of unemployment, the labor market sometimes looks like a market of political favors, where many job appointments are reserved for the party faithful and those with influence. Under these conditions, employment considerations tend to become more important than the production of education itself, especially for the most highly placed politicians whose concern for education and the future of the human resources in their countries is frequently questionable.

The expansion of enrollment in the presence of insufficient funds, together with governments' inclination to create as many jobs as possible, helped concentrate most educational expenditures in salaries. This created a distorted pattern of resource allocation, affecting every aspect of these educational systems.

At the level of individual schools and classrooms, the typical scenario today is the physical deterioration of the public school plant and equipment, and lack of minimal teaching aids such as textbooks and teacher guides. Rural and urban marginal schools are the most badly neglected. At the regional and central levels, the imbalance is reflected by the almost universal disappearance of services in support of the teacher, including supervision and pedagogical assistance. Curriculum development and educational research have become luxuries or totally extinct activities.

The UNESCO/OREALC report acknowledges the scarcity of resources in the following words:

> "The economic crisis puts pressure especially on the funds not committed to salaries. Many establishments lack the budget appropriations needed to pay for indispensable water and electric supply. They are even less likely to have funds for building maintenance and purchases of charts or tools. The increase in cooperative efforts and the exchange of experiences for the development of low-cost [instructional] material and the incentives of educational goods industries have not been sufficient to satisfy these insufficiencies."[19]

Nevertheless, the report does not provide any quantitative clues to the size of the problem. In 1978, the percentage of teachers' salaries in current costs of public education averaged 92.9 in Latin America, while in OECD countries the corresponding

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[19] Op. cit., pg. 55. Translated by author from original in Spanish.

figure was 79.6.[20] In Costa Rica, the proportion of salaries in the total current expenditure for primary and secondary education fluctuated between 98 and 99 per cent between 1980 and 1987.[21] In the Dominican Republic, the proportion of salaries in total expenditures at the primary level runs from 82.6 per cent in 1980--a year with considerable investment activity, but virtually no money for instructional materials--to 98.6 per cent in 1988.[22] This author's estimates of the proportion of salaries to total expenditures (current plus capital) in all levels of public education in El Salvador ran from 78.2 in 1971 to 96.4 in 1986 and 93.3 in 1988.[23] As secondary and tertiary levels tend to have lower proportions of labor costs, the actual percentage of salary costs in current primary education must be very close to 100 per cent. In Honduras, approved budgets of total expenditures in education show a proportion of salaries of 76 per cent in 1981, the last year for which investments were reported. The following year, the proportion increased to 92 per cent and continued increasing slowly until 1989, reaching a proportion of 94.9 per cent.[24] In Panama, the proportion of salaries to current expenditures in primary education has remained high: 98.6 per cent in 1976 and 99.5 per cent in 1990.[25] [26]

3. Some hidden components of educational expenditures

The available statistics on educational expenditures, however, do not measure all the resources spent in the sector, nor the degree of the distortions. Almost no data exist on the costs to the public sector of pension regimes, the number of sick days, the number of days lost to strikes, and the number of days lost due to

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[20] UNESCO, Statistical Yearbook, 1981, Tables 4.2 and 4.4, taken from J.C. Eicher, Educational Costing and Financing in Developing Countries: Focus on Sub-Saharan Africa, World Bank Staff Working Papers, Number 655, Washington, D.C., 1984. OECD is the Organization for Economic Development and Cooperation and is formed by western developed countries.

[21] See Jorge A. Sanguinetty, La Educación General en Costa Rica: La Crisis y sus Posibles Soluciones, Final Report of the Technical Assistance Project Ministry of Planning/World Bank, by Development Technologies, Inc., Washington, D.C., 1988, table 7.

[22] Estimates made with data published by Oficina Nacional de Presupuesto, Ejecución del Presupuesto Año 1980, pg. 206-7 and Ejecución del Presupuesto Año 1988, Dominican Republic.

[23] Jorge A. Sanguinetty, "The Economics of Basic Education in El Salvador," El Salvador Education Baseline Studies, The Academy for Educational Development, Washington, D.C., 1989.

[24] The figures were taken from loose sheets from the ministry of education under the title "Secretaría de Educación Pública, Presupuestos Asignados 1981-1989", with the typist mark JNCHF/vdev. The figures for total expenditures suffered modifications through execution of the budget during the corresponding periods. Such modifications were generally upwards and about ten per cent. Although no information is available on the modifications of the corresponding salary figures, it is safe to assume that most of the modifications were due to salaries.

[25] From work sheets supplied by Sección de Presupuesto, Departamento de Finanzas, Ministerio de Educación, by Mrs. Argentina de Vázquez.

[26] The information available for Guatemala did not allow production of a reliable estimate of this indicator.

teacher absenteeism. Social security systems for the teacher in many of these countries are based on financially unfeasible and economically inefficient benefit-to-contribution relationships. In some countries, teachers are allowed to retire in their mid-forties, after 20 or 25 years of service, with no minimum age of retirement and with pensions equal or close to their last salaries. These expenditures, however, are not included as part of the education budget. The incidence of sick leaves and long-term disabilities with pay are reportedly very high in every country, parallel to the frequent practice of buying medical certifications of illness from cooperating doctors.

All this means that despite the financial insufficiencies of education there are important leakages in the administration system through which an unknown volume of resources are wasted every year. At the same time, the levels of teacher compensation have been deteriorating at a fast rate, as we will discuss in the next section. The teacher pension regimes represent, in some countries, a way for teachers to get even by retiring early and receiving a level of compensation that is not warranted by their contributions to those funds.

F. Teachers' Salaries

The high proportion of current expenditures dedicated to salaries does not mean that teachers enjoy relatively good salaries. In many countries, inflation has eroded the purchasing power of those salaries to the point of forcing many teachers to hold second and third jobs to make ends meet. In Costa Rica, teachers' **real** salaries increased significantly during the seventies but lost all they gained and a little more during the next decade.[27] In the Dominican Republic, urban primary teachers with certificates lost 31 per cent of their real salaries between 1975 and 1986, while their rural equivalents lost 22 per cent.[28] In El Salvador, the average teacher salary lost around two thirds of its worth in real terms between 1980 and 1987.[29]

In Honduras, teachers appear to have maintained their levels of compensation without major losses until recently, although confirmation of this would require more statistical information, especially to evaluate the effects of the devaluation of the Lempira in early 1991. In any case, their mean salaries seem to trail behind those of other public sector employees. In Panama, there is no independent monetary system; the economy is tied to the U.S. dollar and real salaries seem to have kept their worth.[30]

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[27] See La Educación General en Costa Rica, op. cit., pgs. 39-40.

[28] See Marcia Bernbaum and Paula Cruz, "Primary Education Improvement in the Dominican Republic", a concept paper. mimeo, May 1989.

[29] See El Salvador Education Baseline Studies, The Economics of Basic Education, op. cit., pgs. 6 and 7.

[30] The inflation of the U.S. dollar would affect the purchasing power of those salaries, but it has been very low in the last few years while the nominal salaries have not been reduced.

The report by UNESCO/OREALC recognizes the deterioration in teachers' salaries without offering any specific data.[31] Salary statistics in Latin America are very difficult to obtain and, consequently, it is not easy to compare salaries or wage rates across professions. In Costa Rica and El Salvador, however, it seems that teacher base or starting salaries are below the starting salaries for low-level administrative personnel. The ratios between salaries of the different professions or occupational categories partially determine the decisions by the members of the labor force to develop skills or to join certain groups.

In some countries, the number of teachers on the payroll has been increasing in proportions larger than the rates of growth of enrollments and of expenditures in education. This provides additional insight into the issue of teachers' real salaries and their recent evolution. For instance, the number of primary teachers in Costa Rica increased 34 per cent between 1980 and 1989, while student enrollments only increased 21 per cent in the same period, and expenditures remained at about the same level. This means that the gross student/teacher ratio decreased, as did the level of expenditure per teacher. The decrease in the number of students per teacher can very well be a result of lower efficiency in the use of teachers' time, and the fall in the level of expenditure per teacher is congruent with the reduction in real salaries.

In the Dominican Republic, the total number of teachers increased 51 per cent between 1976 and 1986, while enrollments increased less than 18 per cent and expenditures 43 per cent during the same period. This result also suggests a decline in teachers' salaries over the period. In Honduras, however, the number of teachers increased 48 per cent between 1980 and 1989, while enrollments increased 46 per cent and expenditures 52 per cent in the same period. In other words, Honduras has been able to keep almost the same proportional growth in all three variables, which suggests that teachers' nominal salaries did not suffer a significant loss until 1989, and that the level of utilization of teachers may have remained relatively constant. In Guatemala, the number of teachers increased 30 per cent from 1981 to 1988 while enrollments increased 38 per cent and expenditures 27 per cent in the same period. This indicates a mild deterioration in nominal salaries and a more significant increase in the gross student/teacher ratio.

The available information suggests that, especially in countries that have suffered long periods of inflation, there is a severe erosion of teachers' levels of compensation in real terms, a phenomenon that tends to attract to the teaching profession the less skillful and able. Among the countries studied here, Costa Rica and El Salvador at least present a situation whose gravity deserves some attention. The deterioration of teachers' salaries discourages young talent from going into the teaching profession.

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[31] Op. cit., pgs. 54 and 55.

In the short run, damage is being done by the large numbers of teachers reportedly having additional jobs. Moonlighting means the teacher has less time for class preparation, for meetings with parents or other teachers, and is unable to be mentally dedicated to the profession. Besides, holding several jobs frequently forces absenteeism from the classroom. In Panama, some believe that moonlighting among teachers surpasses the 50 per cent mark. In Costa Rica and El Salvador, teacher moonlighting seems to be the rule, not the exception.

In the long run, what kind of individual would be attracted to a profession whose salary is chronically decreasing? Who could be attracted to a profession that offers long hours of work on top of a continuing decrease in social status?[32] Applicants under this scenario will be those with fewest skills and greatest need for a job, with the exception of a handful called by a sense of mission or vocation. Yet, an education system cannot be dependent on vocation alone. "Mística", as a strong vocational inclination is called in these countries, has kept many a teacher hopefully awaiting better times. The decline in teachers' standard of living and status may be causing a severe erosion in the stock of teachers in these societies, a phenomenon that besides its gravity, is irreversible in the short and medium term. It is obvious that sudden increases in teacher salaries--currently a fiscal impossibility in most countries--would not bring back the lost teachers, much less those that, because of insufficient incentives, are now in different occupations.[33]

G. The Forces Driving the Educational Budget

The high proportion of educational expenditures dedicated to teacher salaries is a reflection that the payroll has become the predominant variable in the formulation of the typical budget. In practical terms, the budget is the payroll. As the fiscal crisis deepened, non-salary budget items were reduced to their minimum expression. Neither salary reductions nor cuts in personnel were implemented, and the total volume of salaries was generally left intact to avoid political turmoil in already troubled economies. In some cases, the teachers were even able to obtain salary increases. Inflation, however, took care of those countries where the reduction of expenditures in non-personnel items was not sufficient to reach fiscal equilibrium, causing a fall in real salaries already mentioned.

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[32] Status can hardly be measured. Nevertheless, when reviewing history books of any of these countries, one can observe how many teachers were able to obtain prominence as educators. Nowadays, a teacher can only reach prominence through political activism, possibly in labor unions.

[33] It has been argued that some empirical research results indicate that teacher salaries are not correlated with their impact on education, therefore, salaries are not important in educational development. Those results, however, only correlate variations of salaries with variations in some variable representing impact (i.e., academic achievement) on cross section samples of teachers and/or students, and do not invalidate the argument that lower salaries attract less skillful individuals to any profession.

Investments in new capacities or other unaffordable activities could only be funded with external borrowing, an alternative that many countries could not afford precisely because they already had an unmanageable debt burden. As the situation lingers, the educational systems are becoming increasingly accustomed to not having domestic funds for capital expenditures. The dependence on foreign aid is now chronic. The simple fact that it is available seems to be contributing to keeping the countries and their governments from reckoning with this crisis in more fundamental and independent ways. There is not one ministry of education among the countries surveyed that does not depend on foreign assistance to introduce changes of significance in its educational system. The attitudes of ministry officials are conditioned by the possibility of obtaining foreign assistance.

In the survey we applied in five of the six countries included in this study, a certain degree of dependence on foreign assistance was revealed. The following question was asked to each respondent: "If the principal problem of primary education were lack of funding, and if there were no possibilities to reallocate funds from other government sectors, which of the following alternatives would you recommend? (More than one answer is acceptable)." The alternatives were the following (the answers are in parentheses):

a.	Increase taxes to augment funds available to primary education	(19%)
b.	Transfer funds from secondary	(7%)
c.	Transfer funds from universities	(20%)
d.	Reduce enrollment to concentrate resources in the best students	(0%)
e.	Request assistance from other governments	(36%)
f.	Do nothing	(0%)
g.	Other answers	(19%)

The truth is that investment needs are of such a magnitude that foreign assistance, either as loans or as grants, is hardly sufficient. Besides, the current financial deficiencies, we must remember, are not only in investments, but also in maintenance, materials, and even salaries. The fact that there is money only for salaries is a result of a public sector policy which places employment of the public servant--including the teachers--before the quality of the services delivered.

The education budget, in any case, has its own dynamics in nominal terms, since in the existing salary scales (generally negotiated with teacher unions) there are formulas that establish automatic raises of several kinds. Seniority is probably the most important factor that introduces automatic raises in all countries. There are also raises available for taking courses or reaching higher educational levels and adjustments due to geographical zoning and to level of administrative responsibility in the school.

As the education budget is almost equal to the payroll, ministries do not control their most important policy instrument for effecting changes: financial resources. In reality, they have lost virtually all control of the education sector and its development possibilities. This is reflected by the fact that the main activity of the top managers in any education ministry consists of managing the payroll in terms of new appointments, retirements, transfers, sick leaves, vacations, replacements, and rubber-stamping automatic salary raises. In many cases, these routine activities are made at a highly centralized level, a circumstance that is profoundly disillusioning for the conscientious official and an opportunity for the politically motivated.

The second most important activity of education ministry officials could very well be dealing with the teachers' union to avoid a strike or negotiate a new collective agreement. In this situation, ministries of education are limited to acting as intermediaries between unions and their finance ministries. Unfortunately, the fiscal crisis has damaged the relations between ministries and unions instead of having been taken as an opportunity to form a strategic alliance for more public investment in education, and improving the status and standards of living of the teachers in exchange for their commitment to improve the quality of education in their respective nations.

How can these countries pursue any educational development policies when they have virtually no control over the resources they oversee? Even if the payroll could be reduced to reestablish a certain amount of equilibrium in the structure of expenditures, the decision would almost certainly imply a reduction in coverage, unless there is currently a significant waste of teachers' time. The typical minister or vice minister of education appointed to introduce changes in the education system inherits a system with no room for financial maneuvering at the primary and secondary levels. They also inherit a system that typically allocates to universities a large proportion of the total educational budget of the country, but affords ministries of education little or no control over such resources. Complicating matters further, there is a general lack of awareness of the educational problem at the highest levels of government. This could be partially explained by the fact that most top government officials and political leaders send their children to private schools and are not touched personally by any of the manifestations of the crisis in public education.

Any changes would have to be implemented by taking politically risky or legally impossible measures, such as reducing the level of public sector employment by cutting off redundant labor, reducing coverage of some levels of education, eliminating certain programs such as school feeding programs (where they exist), or reallocating funds away from the public university system while instituting a tuition system supplemented with a student loan program. It seems that, from the point of view of the fiscal constraint, self-reliant educational development can only be pursued by looking beyond the public education and fiscal systems.

IV. EDUCATIONAL OUTPUTS

A. The Increase in Coverage

The educational development goals that complemented the worldwide economic development policies after World War II focused on reducing or even eliminating adult illiteracy and on increasing access to and coverage of the primary school level. The final goal was universal primary education, a noble aspiration implemented under the assumption that the quality of education, as defined previously, was to remain constant or even improve. The development doctrine was based on a relatively simplistic concept: allocate a certain percentage of the GDP, frequently set at around five per cent per annum by international organizations, and multiply the volume of resources allocated to the current system until achieving the target. It was assumed that educational development in support of economic and social development could be achieved by simply multiplying the existing systems and make them grow accordingly.[34]

In implementing those policies, the non-proportional features of educational systems were not recognized. It was tacitly assumed, for instance, that the number of qualified teachers could grow proportionally, that the increase of teacher training capacities could be accomplished under a constant qualitative standard, and that the management systems of the educational administrations could expand at the required rate.

From today's perspective, it is puzzling to view the tacit assumption that the sixth-grade graduate under the expanded universal system would be automatically standardized and identical to the graduate of more elitist times. Somehow, the quality of the educational output was taken for granted, as if it could be achieved and maintained without any special policy or administrative instrument.

In the same vein, it seems incongruous that many believed that educational systems everywhere, even in countries that were significantly far away from the established goal, would automatically organize themselves to that purpose, i.e., the massive production of sixth-grade graduates of high educational equality. As quantitative educational development took place, however, the set goals appeared to be fulfilled, while the quality of education was taken for granted.

Quantitative improvements in education as measured by increments in enrollment rates are more tangible indicators for the general public than qualitative improvements. Therefore, quantitative advances are always preferred politically.

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[34] This idea is an old one, contributed by Philip H. Coombs in his The World Crisis in Education: The View from the Eighties, Oxford University Press, New York, 1985, pg. 6.

Measuring qualitative improvements in terms of academic achievement is costly. The results of such measurements are abstract and difficult to sell to the population. They are also politically risky since no one knows in advance what the results will be and who will end up carrying the blame. Besides, improvements in academic achievement only benefit those who are in school, not the dropout or those who cannot access the school system. The political appeal of increases in coverage has also been reinforced by the international development community's emphasis on enrollment figures.

All these factors have created an educational development policy fixation with enrollment figures first, and with lowering repetition and dropout rates afterwards. The quality of the education imparted was never a serious policy goal. More recently, public statements about education increasingly include references to qualitative improvements, yet those statements are not supported by the corresponding organizational changes, policy reforms, or resources needed to carry them out.

B. The Trade-off Between Coverage and Quality

Given a fixed amount of resources, a given quality standard, and maximum efficiency in the use of the available resources, a certain degree of educational coverage can be provided. In order to provide more coverage of the same quality, it is necessary to increase the availability of resources. A given expansion in coverage, for instance, 20 per cent, may require more than a 20 per cent increase in resources if the expansion is needed rapidly. Quality teachers and other educational resources may not be available on time without additional resource expenditure.

In retrospect, it seems that the great expansion in educational coverage was achieved at a high cost in quality, due to the fact that resources were not made available in sufficient amounts (the rate of expenditures to GDP did not grow consistently), and that there were some other important qualitative changes in the educational systems principally in the fields of teacher training and general management by ministries of education.

Quality changes, unfortunately, are not as easy to document and "prove" as is quantitative information that can be put in tables. Nevertheless, they are as important and must be reckoned with. We refer to the apparent deterioration in teacher training that, in many experts' opinions (including the UNESCO/OREALC report[35]), took place during the big push for expanding the quantitative frontier of education. During this period, governments improvised teacher training institutions while damaging the effectiveness of the traditional "normal" schools for teachers. This process is now being accelerated by the deterioration of teachers salaries.

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[35] Op. cit., pgs. 52-55.

C. The Decline in Academic Achievement

Among the countries included in this survey, only Costa Rica has recently attempted to measure the general level of academic achievement of its students. After years of neglect, in 1986 the minister of education decided, to his credit, that it was time to learn something about the quality of the education produced by the public system.

Standardized tests were designed based on a previous survey conducted among a cross section of teachers for that specific purpose. That survey consisted of asking the teachers what kind of material they considered relevant. The approach was based on the plausible assumption that the current curriculum was obsolete and mostly ignored by the teachers. Using the teachers' answers, the testing instruments for the students (at various levels of education) were designed, pre-tested, and applied. **The results were devastating.** The mean scores reflected levels of knowledge well below any acceptable marks. The tests continue to be applied every year and the results have shown little improvement.

There is no evidence available about any similar effort carried out in the other five countries of the group surveyed here. The UNESCO/OREALC report mentions that there are six countries in the Latin American and Caribbean region that apply standardized achievement tests in primary schools, but the countries are not identified.[36]

One can only think that, without any quality control or monitoring mechanism, let alone explicit policies, academic achievement can only drift downward. This would seem to be especially true during the quantitative expansion of the educational systems which forced significant improvisations in the areas of teacher training, managerial support, and financial resources insufficient to accommodate the coverage expansion. Without any solid evidence on the state of the quality of education in these countries, the only recourse is to depend on the perceptions of qualified observers. Though the method is weak and based on subjective information, it is the only means available to evaluate the current status of educational outputs.

An informal survey was taken in this regard in five of the six countries studied here. One of the questions was the following: "In your opinion, is the child that graduates today from sixth grade better or worse educated than the graduate of: a) 5 years ago, b) 10 years ago, c) 20 years ago, d) more than 20 years ago?" Taking the five countries together and eliminating all the answers responded as "I do not know," the "better" answers were 22 per cent while "worse" had 70 per cent, with 8 per cent responding "equal." The answers were remarkably similar from country to country.

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[36] Ibid., pg. 47.

In any case, these results should be taken very cautiously, given the scope of the survey.

Another question was the following: "In your opinion, is the teacher that joins the profession today better or worse educated than the teacher trained: a) 5 years ago, b) 10 years ago, c) 20 years ago, d) more than 20 years ago?" The answers were 9 per cent for "better," 77 per cent for "worse," and 13 per cent for "equal."[37] Despite the small sample size, the results generally confirm the notion that the past was better and that there has been a deterioration in the quality of education.

Quality could, in principle, be measured by academic achievement scores, and observed in levels of student discipline and in some other non-cognitive traits, such as, ability to concentrate for long periods of time, level of individual responsibility, and ability to set and pursue goals. The notion of a qualitative decline is not a secret; it is present in any serious conversation among educators, and it appears with less frequency than desirable in newspaper articles written by Latin American educators of prominence.

The most articulate teachers or observers who believe in the existence of this decline generally base their belief on observations about a few educational traits of the population that has completed a certain level of formal education, generally secondary. The most frequently cited variables are: a) the poor use of language; b) the limited vocabulary; and, c) the lack of numerical proficiency. Also mentioned are the predominantly weak forms of logical thought and argumentation, the low level of knowledge of traditionally relevant historical and geographical facts, and the deficiencies in writing and in orthography (spelling). The most damaging comparisons refer to first year university students. Yet, there is an almost unanimous perception that the decline in quality involves all the levels of education.[38]

These beliefs are shared by large segments of the education community including primary and secondary school teachers, university professors, and education officials. Unanimity in the perception of the decline is only broken by a few younger generation teachers and professionals. Why, then, has there not been any attempt in these countries to confirm or deny such perceptions?

The reaction to the Costa Rican attempt to measure achievement in 1986 may help us find some answers. The results were generally accepted as valid, but the teaching

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[37] The percentages do not add up to 100 due to rounding error.

[38] As a former university professor working with significant numbers of Latin American students in economics, and as a frequent lecturer, this author shares the same general perceptions. Variations in the quality of education received are particularly notorious when comparing graduates from universities that have maintained high levels of standards against students from institutions that have become known for lack of commitment in this respect. The same differences in educational proficiency can be observed when comparing graduates of any educational level that belong to different age groups or cohorts.

body bitterly denounced the effort as an attempt to blame them for the catastrophic state of education in the country. This reaction was worsened by the fact that Costa Rica is frequently cited as an example to be followed by others. It appeared that the teachers had been left out of the effort and, in fact, the ministry had not given the teachers a sense of participation in the project. Inadvertently, the ministry seemed to give the impression that the problem, as well as its solution, belonged to the ministry. Instead of drafting the teachers' support for future improvements, the minister's actions provoked the opposite reaction.

There was, even before the incident, a great deal of mistrust between the ministry and teachers for many reasons. The ministry tends to see the teacher's union as a political adversary, while the teachers critically view the ministry as a center dominated by officials that use their positions for political gains. The teachers also resent the supervisory powers of the ministry. Such powers, although less frequently exercised by the ministry than in the past, are still present. Teachers frequently complain that they are devoid of activities in support of the learning-teaching process.

D. The Private Education System

It is generally believed that the private education system produces a better quality education. This belief was supported by the results of the achievement tests in Costa Rica. Private schools included in the sample showed higher mean scores than public schools, as just mentioned, though such mean scores were also considered unsatisfactory. The results of our five-country survey also confirm this notion. The following question was asked: "How would you compare, in your opinion, the degree of competence of the average sixth-grade graduate from the public schools versus the private schools?" Eighty per cent of the 40 respondents declared that the private schools were better and 8 per cent considered them equal.

The reasons for the private-public differential may be several. Perhaps the most important is that, in the private schools, there is a sense of discipline that translates into a willingness to maintain minimum educational standards, possibly as the result of competition among the schools. Parents are more demanding when they pay for their children' education, although parental educational background is also an important variable. On the other hand, many families that traditionally send their children to the public school system are aware of its relative inferiority, a fact reflected in the steady increase in private enrollments in Costa Rica (64 per cent in the 1979-1989 period) and in El Salvador, where private enrollment as a proportion of public enrollment increased from 6.7 per cent in 1978 to 12.2 per cent in 1987, for an increase of 230 per cent. In the Dominican Republic, private enrollment grew at a rate six times faster than public enrollment between 1976 and 1986.

Educational research shows that children tend to be more successful in school when they come from families with increasingly high levels of education, at least at the primary and secondary levels. The level of education of the mother tends to be more important than the father's. This implies that, in equality of circumstances, children in private schools will on average achieve more only because of their parents' education and, therefore, the student in the public system will tend to achieve less not because of the school but because of the educational background of the parents. Although the argument is generally valid, and educational research has never thoroughly established the possibilities of substitution between family background and school characteristics, it is still plausible to expect that a better organized school, public or private, with a sense of determination regarding standards, and with minimum facilities must make a difference in the quality of the final product.[39]

The point to remember in this section is simply that the private school system may be more efficient in producing quality education because they have to compete among themselves to attract students, and this produces an incentive to promote quality. They would be out of business if they could not demonstrate that what their clients pay is worth the sacrifice. This incentive mechanism or a similar one is not present in the public school system. While the private school is accountable to the parents who pay, neither the individual public school nor the education ministry are accountable to anyone.

Nevertheless, the fact that the achievement scores in Costa Rica also showed unsatisfactory levels in private schools, and the possibility that private education deteriorated along with the public system implies that improvements in education may require more than competition among the schools. As there are no universal and timeless evaluation standards, it seems that the only way to maintain a certain level of standards is by a socially concerted agreement involving some of the most influential segments of the population. In the Costa Rican case, and perhaps in the cases of all the countries surveyed, the decline in the quality of public education may have been accompanied by a crisis of leadership in the ministries of education that reached the private system. The private school system does not operate independently from the public system, and their linkages may be partially responsible for the mutual decline in education.

Other social phenomena may have also played a significant role in the educational decline. One is that as students are transferred from the public to the private system, the average quality of the student tends to fall in the respective peer groups, if the transfer students tend to be among the best in the public system, but not quite so good as their peers in the private system. A second factor worth keeping in mind for future research is that the expansion of coverage in secondary education, combined

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[39] Educational research has, however, established that one way to supplement parental insufficiencies at home is through pre-school education.

with predominant teacher promotion practices, has drained the primary level of many of its best teachers and principals. A third factor is that the total amount of time dedicated to education--in school and homework--seems to be losing ground to the amount of time dedicated to entertainment, primarily passive TV watching.[40]

V. IMPLICATIONS FOR ECONOMIC AND SOCIAL DEVELOPMENT

A. The Erosion of the Human Resource Endowment

Education is provided to enhance the quality of human resources of societies. Individuals with more education reach better standards of living. Societies that provide more education to their members have better opportunities to grow economically and achieve political stability and democracy. Yet, to what kind of education are we referring? If we are referring to the type of education produced in developed countries, the countries studied here are at a serious disadvantage as managing their economies, natural resources, and political systems becomes increasingly complex. I suspect that these countries are suffering from a chronic erosion of their human resource endowment, a phenomenon with the catastrophic connotations of the depletion of the rain forests or the reduction of the ozone layer. What we are referring to here is the human wealth of these societies, their most important economic resource. With a declining educational system, these societies will not achieve the levels of productive efficiency and growth necessary to exchange and compete in the increasingly integrated world economic system.

Even though the notion of a decline in their educational systems is derived from experts' observations, with the exception of the Costa Rican test scores, its implications are grave enough to deserve careful consideration.[41] [42]

B. The Spectrum of Educational Opportunities

Universal coverage of primary or basic education pursued not only overall economic growth but also a reduction in the inequalities in the distribution of income and wealth. By increasing access to formal education, it was argued, the poor would have better opportunities in the labor markets and be more productive once employed.

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[40] In economic jargon, as the relative price of entertainment becomes lower than that of investing in formal education (as a function of expected returns), a substitution effect takes place to the detriment of children's education.

[41] It is most unfortunate that there is hardly an institution willing to invest the funds necessary to carry out the minimum empirical investigations to assess the state of education in less developed countries. The current state of educational research for development purposes is deplorable.

[42] Despite the fact that they could not be studied in a long-term frame of reference, the results were interpreted as reflecting a decline with respect to the past.

This might have been true if the levels of quality had been kept constant. More individuals, especially from the most disadvantaged segments of the society, would have enjoyed the same quality of education that was imparted when the system was more elitist. The decline in quality may have disappointed this legitimate aspiration. As low educational quality affects the public school system, the poor have fewer chances to excel in a universal but mediocre system than in a system that offered relatively more quality for the very few.[43] Ironically, a development strategy that was intended to achieve more growth with less inequality may have produced less growth with more inequality, since the children from richer families still can go to private schools which are considered to be at least marginally better.

At this point, it is critical to emphasize that this line of reasoning does not attempt to defend a return to an elitist system. The intention is to point out the trade-off between quality and quantity and the fact that, under a severe fiscal constraint, hard choices must be made to maximize the effectiveness of educational expenditures on future economic development. The trade-off between coverage and quality is never mentioned in public policy discussions at any level, apparently because its implications are politically unmanageable in the short-run, while individual politicians or parties do not perceive political benefits in the long-run.

C. Education and Employment

In a modern economy, the level of employment generation directly depends on the level of investment activity. A labor force of high quality, in the terms described in the introductory chapter, facilitates investment activity, contributing to general economic development. The more skillful and disciplined the labor force, the greater are the levels of productivity that it can achieve and the greater the potential for economic development. On the other hand, when employers find difficulties in hiring trainable, disciplined workers who can follow instructions accurately, work well with teams and need a minimum of supervision, they look for labor-saving (capital-intensive) technologies, or invest in countries with a better human resource pool. Thus, even when there is significant investment activity, there may be insufficient generation of employment. Under these circumstances, there could be economic growth, but its benefits would be distributed unevenly as the less skillful and employable workers did not participate in the process due to educational insufficiencies. In any case, the prospects for overall economic growth and well-paid employment are severely impaired.

Obviously, the concept of quality of the human resource pool goes beyond that of the employed worker. The worker today can be an entrepreneur tomorrow. Also, those

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[43] No illusions can be held about the quality of the public school system vis-a-vis the private system of the past. The fact remains that the quality gap between the public and the private schools seems to have widened.

many other activities of a society, from the cultural to the political, from the economic to the religious, are affected by the quality of the human resource pool. Unfortunately, the producers of education and the users of education, such as business people, rarely meet to discuss the factors that affect education, training, and employment, and ways in which they can collaborate to meet society's needs for productive and socially responsive citizens.

D. The Universities

Perhaps nowhere in the countries we are reviewing has the educational decline been more profound and dramatic than in universities. Closely related to what was said in the previous paragraph, the universities have suffered from a process in which quality and excellence have been under attack on several fronts. The first of them has been the quality of the new students. As standards declined in primary and secondary schools, the incoming students were less prepared to face traditional academic requirements. The result was almost universal: a decrease in university standards of admission, promotion and graduation.

Second, the universities became targets of groups of various ideological trends, with little concern for the quality of higher education. The political agenda was clear: universities traditionally wield a great deal of influence over the course of future events, therefore, their control is critical for long-term political purposes. It is not a coincidence that the prime university departments in the takeover lists of the ideologists were economics, sociology and education. In this respect, universities have become more a source of political instability and a potential threat to the governments in power, than a source of enlightenment. In most Latin American universities, prominence is gained in the political arena, not on academic grounds. The prevalence of politics on campus and further deterioration of higher education in many Latin American universities has also opened the door to other forces of decomposition. The following excerpt from a recent Panamanian newspaper editorial illustrates the point:

> "At the University of Panama, nothing has changed after December 20, 1989. The same academic and administrative officials manage the university with the same methods; accusations of corruption, nepotism, arbitrariness, and fraud pending over the principal officials have not been clarified; democratic practices of alternation of power are unknown; they teach the same antiquated curricula; academic research is a marginal phenomenon; the budget is meager; and installations are insufficient."[44]

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[44] Taken from La Prensa, Panama, March 22, 1991, front page.

Why should the universities be brought into this picture where primary education is the highest priority? There are at least two reasons. One reason is that universities influence teacher training and curriculum design at the very top decision-making levels of all these countries. **Educational development is hardly feasible while ignoring these negative influences at the university level.** The second reason is that, beyond the ideological-influence dimension, the quality of higher education is complementary to the effectiveness of the quality of education at other levels. In other words, a country without a few good civil engineers cannot build the highways needed for development, employ the corresponding labor force, and enjoy all the multiplying effects of such productive processes. In particular, universities generally provide the top-level personnel that manage public education systems. As universities became politicized, they and their graduates forgot how to provide intellectual leadership on major national themes.

For all these reasons, policy dialogues and strategies focused on primary education alone are self-defeating since primary education cannot be improved in isolation from the rest of the society, nor can its graduates fully reach their potential in a society where quality education is only available at the primary level. We must keep in mind that, according to the realities of social and economic organization, the employment of the majority of individuals depends on investment activity and development decisions made by a few people. The causal relationship, however, is not in only one direction. The quality of education and the increasing aspirations of societies can influence the decisions at other levels, for instance, in investment circles, both national and international, presumably for the common good.

While clearly underfinanced, universities are absorbing public funds that should be allocated to basic education. As mentioned earlier, in Costa Rica, for instance, the four public universities absorb 45 per cent of the total educational budget. This is a gross inequity. The financial solution for universities (to be applied after, not before, major reforms) is for them to recover their costs by charging the students directly. This policy would have to be complemented with a student loan system for those without the ability to pay to make sure that the qualifying students from poor families will not be denied educational opportunities at the university level. The system could be complemented with scholarships to the most promising students (rich or poor), and with a mechanism to forgive the loans to the top graduates of each discipline each year. Ironically, the current system of free registration, while diverting funds from basic education (which more seriously affects the poor student) mainly benefits the students from the upper socioeconomic strata, those who were able to stay through primary and secondary levels to reach the university.

VI. THE CURRENT STAGNATION OF PUBLIC EDUCATION SYSTEMS[45]

The educational crisis is only part of a major crisis affecting the public sector in all of these countries. In almost any one Latin American country, this crisis is easily observable through the interminable problems that also affect health and social security services, administration of justice and government services in general. Such a crisis results from the neglect of the authorities at the highest levels of policy making and a generalized lack of commitment to excellence in public service. Ministries of education have been victimized as much as the rest of the sector, but in the process many educational institutions have become incapable of transforming themselves and/or influencing their corresponding societies to undertake major reforms.

In general, ministries of education in the countries surveyed appear to have lost a significant amount of influence in their societies. They have become large bureaucracies with no clear sense of purpose. Specific educational policy targets regarding quality are almost totally absent in most countries. The most common policy goals regarding outputs involve coverage at different levels of education. Judging by the way ministries of education operate and the amount of time given to the different types of decisions, they have become little more than large personnel departments. Their lack of control of the budget, their inability to produce any significant change in the quality of education at any level, and their chronic lack of influence in the design of public policies have severely impaired their capacity to project a leading role in educational development.

The poor control of the budget is illustrated by the fact, already discussed, that the budget is almost equal to the payroll, with little or no resources left for anything else. Investments and development expenditures are only available from foreign sources through loans or donations. This condition has generated a permanent dependence on foreign aid for monies to finance improvements and promote activities other than managing personnel. The absence of domestic savings forces these governments to finance investments with additional credit. These institutions have no research capacity, few technical personnel, and limited policy formulation and implementation capabilities. This means that, in addition to the financial dependence on foreign sources of funds, these countries are also dependent on the technical capabilities of foreigners to formulate policy, define investment projects, and give a sense of purpose to their education sectors.

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[45] Most of the statements in this chapter are based on the author's many years of direct observation of the issues. I believe that these observations, for which only I am entirely responsible, are sufficiently accurate and important to warrant publication. Particularly relevant is the set of attitudes, expectations, frustrations and hopes that currently affect the typical Latin American teacher. Such attributes can only be gauged, though imperfectly and subjectively, by personal contact. If we believe that teachers are important, then we must be concerned about how they feel about all those factors that affect the production of education.

Education has been erroneously portrayed as a social program, an argument that in times of fiscal austerity does not lend education support against other more urgent economic or political programs. Education has also been proclaimed a right, included as such in many of the Latin American countries' constitutions, and generally deemed the great equalizer of social and economic opportunities. In its proclamation as a right, the provision of education up to a certain level (generally primary or basic) became mandatory for the state, while no definitions of minimum educational standards or financial requirements were ever consistently provided. As educational aspirations became the object of all kinds of legal initiatives--as is typical in Latin American societies--the discretionary powers of government were unable to provide the economic and financial resources to support those ideals. Ministries of education, in particular, have been notoriously ineffective in conveying the nature of the educational crisis to the rest of their societies, and in explaining the consequences of the financial limitations suffered by the sector to competent government authorities.

In private conversations with ministers of education and ministers of finance of Latin American countries it is apparent that the former perceive an educational crisis--although there are marked differences in willingness to be vociferous about it--while the latter tend to consider the educational situation as no different from that of the rest of the public sector. The fact is that any action to confront the educational crisis requires a high level of political willingness to act upon it, a risky course of action for a minister whose mandate may not include fundamental changes in the portfolio under his or her command. Yet, even when there is a certain degree of willingness to introduce reforms in education, many ministers and their staff are not adequately prepared to approach the problem with a successful strategy.

A better understanding of the economic and fiscal dimensions of education (the effect of inflation on teachers' salaries, the effect of lower salaries on the quality of teachers' supply, the need to invest more in education for economic--not only social--reasons) could help solve the long-term structural problems of these economies. As the fiscal crisis of the nineteen eighties forced large budget cuts, education could have been spared the current situation if, understanding its importance, the fiscal authorities had directed the cuts elsewhere.

One would think that under these conditions ministries of education would find a natural ally in the teachers' unions, if only to avoid the reduction of teachers salaries and its negative impact on the effectiveness of teaching. The opposite is true, however, since relations between those institutions are rather antagonistic. The dialogue between them is dominated by teachers' compensation. The students and their education are never taken into account. Students and their families lack any form of representation and no other force in their respective societies seems to be willing or interested in taking their cause. Particularly notorious is the general indifference of the press, which only reports labor conflicts. Private sector institutions, with the notable exception of El Salvador, are generally removed from

the educational crisis. All this is reflected by an almost total absence of policy thinking in government regarding the deterioration in educational quality. One wonders, looking from the outside in, if a crisis exists after all, since very few government officials ever make reference to it.

Well, the crisis exists, but the apathy with which it is regarded suggests a high level of skepticism about the possibilities of taking any effective measures. Even in traditionally democratic countries like Costa Rica, there seems to be a certain degree of fatalism or inertia that discourages any action. This is a critical condition to be taken into account in any policy design. Everyone accepts that there is a crisis in education at all levels, but they refuse to act upon it. Why? One possible answer is that these societies, even the ones with the most democratic traditions, have always operated under highly centralized government institutions, often dominated by authoritarian management styles. Centralization and its concomitant bureaucracy may be the culprits, especially when working with a government that, as it grew in size, became more interested in other ministries and public enterprises. For a political entrepreneur, the ministry of education is not as appealing as others. Many years of observation of Latin American public affairs demonstrate that ministers of education are rarely among the most prominent members of a central government.

All this suggests that major solutions to the stagnation of public education systems may have to come from outside the ministries of education. In fact, one could possibly argue that ministries of education, as they exist today, are the main obstacles to educational development. With ministries of education politicized as well as financially crippled, the solution may lie with the potential beneficiaries themselves, i.e., the students' and their communities. This does not necessarily imply that ministries should be eliminated, only deeply transformed. This may be accomplished by reconceptualizing the role of the ministries of education, helping them to get rid of the day-to-day administrative routines, and forcing the authorities to dedicate themselves to more substantive issues such as the formulation and implementation of long-run educational development, teacher training, quality control, and technical innovations in teaching.

More important than strengthening administrative capabilities is raising the level of social awareness about the educational crisis. Most parents are still reported to believe in education as an instrument of social and economic mobility for their children. Nevertheless, their capability to exert any influence is very limited and in most cases negligible. Without their effective participation, no educational development seems feasible. Since families are the direct beneficiaries of educational development they should be in the position of demanding suitable educational outputs. In this respect, their responsibility is double. As consumers of the educational output, no other individuals should be more committed to educational quality than families themselves. As citizens and political constituents, families represent the basic source

of political power, at least potentially, that could eventually determine how much society should invest in education and by what means.

Notwithstanding the importance of the management system and the families, the teacher remains the main agent in the production of education. Unfortunately, the teacher's status has declined to the point where they are viewed as just another public sector employee. As already stated, teachers no longer command the status they once enjoyed in society. Teachers feel alienated from the ministry of education because the ministry is not considered to be capable of providing pedagogical guidance and leadership.

Teacher motivation today depends on the remnants of vocation that still exist in some dedicated individuals. Overall, the morale of the teaching body is low. Under these conditions, educational development efforts that include teacher training are generally doomed to fail. The entire education establishment is organized as if to discourage teachers from doing their job. Part of the problem is financial, as evidenced by salary insufficiencies and lack of educational means. Yet, a good part is lack of participation. The teacher has been forced to work as a sort of bureaucrat who must follow a curriculum in which he or she does not believe, and without any sense of participation in major educational decisions, either at the school level or above. Teachers' power is only manifested through the teachers unions, although many consider this an aberration more than a true exercise of power, since union leaders systematically concentrate on politics and better pay, rather than advocating other improvements to education.

In synthesis, the educational system is composed of three major components:

- The administrative apparatus (public, private or mixed), in charge of providing resources and guidance;
- The family, representing the beneficiaries; and
- The teacher, representing the producer.

Each of the three is indispensable in educational development and each presents important shortcomings that must be addressed. The current insufficiencies are financial, managerial, and political, all of them mutually reinforcing. Long-term solutions must take them all into account. The successful solutions must restore the effectiveness of the teacher and the ministry, and recognize the critical importance of the family in the educational process.

In summary, the educational crisis consists of the following main aspects:

- Levels of funding incompatible with the goal of universal primary coverage of minimum quality;

- Management systems incapable of making maximum use of resources, obtaining more resources, maintaining minimum quality standards in schools, and providing leadership for educational development;

- Teachers' salaries incompatible with the need to create incentives for good teaching practices and to keep and attract capable professionals; and

- Stagnant or declining quality of output and standards.

VII. AN OVERVIEW OF CURRENT SOLUTIONS

Some solutions have been offered to introduce improvements, albeit partial, in education. Proposed solutions for problems of coverage include distance education and increasing internal efficiency to liberate resources tied down by excessive repetition. Inadequate quality has been approached indirectly under the hope that improving inputs (such as textbooks and teacher training) will have a significant impact on output quality even if nothing else changes. There are even those who think that computerized management information systems would give the ministries a powerful tool to act on the problems, under the naive assumption that more effective decisions have not been made due to lack of information. These solutions belong to a family of what we could call technological solutions. More recently, there have been proposals that directly focus on the managerial system itself. The most frequent are the ones dealing with the issue of excessive centralization. They propose decentralizing the educational systems by transferring power to the communities or municipalities. However, the most beneficial initiative with respect to long-term impact on efficiency, effectiveness, and quality of education has been the expansion of coverage in pre-school or pre-primary education. Nevertheless, the ultimate impact of such benefits can only be realized if sufficient investment is made in primary education. This implies that a certain equilibrium should be maintained in the way resources are allocated to different levels of the educational system in order to maximize the returns to educational investment.

Virtually all of these initiatives are sponsored by international donors and deserve a great deal of attention and analysis. The main purpose of the comments that follow is to invite reflection, not final decisions, on whether and how the proposed solutions should be pursued. The reason to stay one step away from making "final" recommendations is simple. If we believe that the most effective solutions to the

educational crisis should be based on changing behavioral patterns, then it is necessary to recommend strategies that can be adapted to the idiosyncracies of each country.

Technological solutions to any problem are sometimes expected to produce miracles in short periods of time and at a low cost. The use of radio may be one of those cases, although its proponents are generally cautious in asserting the effectiveness of this alternative. Radio education is applied in a variety of formats, sometimes as a complement to the teacher in the classroom, sometimes as an interactive instrument with the student in those remote areas where there are no schools or teachers. Evaluations of academic achievement show significant improvements in the students participating in radio education compared to non-participating students, a result that can be partially interpreted as a measure of the poverty of the regular system. Radio's success may also result from its accompanying written materials and/or its sense of purpose. Little is known, however, about radio's effects on internal efficiency in the educational system in terms of reductions in repetition and dropout rates. Also unsubstantiated are its influences on long-term educational attainment or academic achievement. It is important to point out that the cost effectiveness of radio education cannot be taken for granted since certain designs depend on large scale applications to reach unit cost advantages.

The use of textbooks is also expected to produce significant effects, although complementary factors are not always taken into account. Evaluations of recently implemented projects that made textbooks available in large quantities have either not been carried out or have not been made public. In some of these projects, teacher training was not always coordinated with textbook development; in other cases, the textbooks themselves were deficient. In fact, one of the most disappointing outcomes of the current educational scene is that educational research is almost extinct in most of these countries, while most of the efforts made are not methodologically sound.[46]

Computerized management information systems would be beneficial, but only after a number of more important problems are solved. Under current conditions, sophisticated information systems seem underutilized by the ministries, are not reliable due to deficiencies in the raw data, and provide a distraction from the real issues. In any case, they should be kept in mind as powerful decision-making tools, when the interest in using them and the competence exist.

Proposals to change the education management systems are almost always based on the notion of decentralization. In general, the proposals charge communities with managing their schools. A variety of formats are offered, with different degrees of

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[46] The only rational explanation for the lack of solid evaluations or research is that the individuals responsible for different aspects of the education system feel insecure about the results. A serious evaluation can be bad news for a bureaucrat, therefore, why take the chance if no one cares?

decentralization of various functions. The experience of Chile in this area seems to be of much interest to the countries included here. Nevertheless, organizational designs are not universally applicable and should take into account prevalent behavioral patterns and cultural and political factors where they are to be implemented.

Recent educational development efforts of significance have almost always been sponsored, and often designed, by some international donor agency. More often than not, such efforts have tended to be fragmented since the obstacles to effective educational development are generally perceived to be gigantic and the volume of funds available is never enough. Consequently, the fragmentation of projects usually leads the sponsor to go looking for the most effective forms of intervention, i.e., those projects that can produce maximum impact under the circumstances.

One problem with such an approach is that long-term project success depends on the public education system the incompetence of which is well established. New projects are usually condemned to failure over the long-run because they are in the hands of public administrators or political appointees that have lost their commitment to quality education.[47] Another problem is the relative isolation from a sectoral point of view. As the educational crisis transcends the educational sector, the effectiveness of many projects depends on the commitment of agents outside the sector whose cooperation may be indispensable to the success of the project. A good example is the problem with teachers' salaries. Avoiding their further deterioration and eventually improving them requires budgetary decisions involving almost all branches of government. A third problem is the lack of continuity in personnel in the ministry after frequent cabinet or government changes. Continuity is so fragile that even changes of administrators within the same political party can destroy or seriously damage what was achieved previously.

All these considerations indicate that the design of an effective educational development strategy is a most complex undertaking, and should be engineered very carefully and professionally to achieve the desired results.

VIII. A NEW STRATEGY FOR EDUCATIONAL DEVELOPMENT

This chapter is a proposal for a new approach to educational development. It is based on the premise that the type of educational development necessary in countries such as the ones surveyed must have three fundamental characteristics. First, changes must be sustainable. Otherwise, development efforts are wasteful and

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[47] No comprehensive history of past educational development projects seems to be available. Upon talking to experienced education officers from international organizations, however, one immediately learns about the overwhelming number of projects that degraded slowly and ceased to exist some time after the foreign money stopped flowing and the foreign consultants in charge of technical assistance left the country.

provide a false expectation of improvements, while leaving a sense of skepticism about the prospects of future change. Second, the strategy must be able to reverse the current declining trend in quality and provide the basis for continuing development. Third, the strategy must be seriously committed to linking educational development with the need to improve the quality of the human resource endowment, as previously defined. The emphasis in this chapter is placed on the design components with some consideration given to implementation. This proposal, however, is not a specific action plan. Instead, it constitutes a relatively general statement of objectives, methods and principles to provide an organized framework for further discussion.

The chapter first discusses objectives and constraints, then moves on to an overview of the environment in which the education system operates including the macro-level actors of ministries of education and teachers' unions. After reviewing options provided by decentralization, the roles of community-level participants are reviewed. A final section analyses the contribution to be made by international donors.

A. The Objectives: Quality

Perhaps the most glaring deficiency of educational systems in the countries surveyed is their lack of specific educational policy targets. This seems to reflect a general lack of direction in the educational administrations of many of the countries. In fact, it is inconceivable that many educational development efforts have been implemented without a clear sense of direction. Providing a concrete sense of purpose is the starting point of the strategy proposed here. The cardinal goal of this strategy is to improve the quality of education at all levels, with special emphasis on the primary school level. Quality of education, previously defined in this paper's introduction, is the quality of the end product as measured by academic achievement, in the cognitive domain, and other non-cognitive educational objectives that contribute to character building. Our main methodological problem is how we can best pursue this goal in the presence of severe budget constraints, and other institutional and political barriers such as low levels of government understanding about the educational crisis, weak community organizations, and poor relationships with teachers' unions. Under such constraints a number of relevant questions arise: Is the main goal feasible within the current conditions? Within what planning horizon is the goal feasible? What are the first actions that must be taken towards achieving it?

The answers to such questions require that the general goal of increasing the quality of education at all levels be made more specific. Instead of trying to pursue the goal across the board at all levels of education, a set of partial targets should be defined first. For instance, we could concentrate the effort at the primary level first, but in which grades? All the grades simultaneously or some first to be followed by other grades? Should a plan be implemented in all schools at the same time or for a group or region?

Since the answers will depend on the resources that can be mobilized for a program of educational development, we will approach this issue after discussing the constraints further below. Meanwhile, it is important to clarify the definition of goal or target. In a plan to increase quality of education as measured by academic achievement, specific targets should be set. This is one of the central topics in a policy dialogue regarding improvements of education. What does the society want in terms of academic achievement? How are they going to set targets? Academic achievement is a multidimensional factor. It can refer to a variety of topics such as reading comprehension, mathematics, science, and social studies. What is a realistic policy menu for each country? At what levels should the achievement scores be set for the school system? Should grade-to-grade promotion systems in every school be based on strict adherence to academic achievement standards applied nationally? Should there be a more flexible system of minimum national requirements combined with a certain amount of material which is regionally relevant or feasible?

All these questions and many others provide a wide spectrum of possibilities for an educational development policy menu. What each country wants should be defined by specific and empirically verifiable targets, with their corresponding timetables. Yet, the setting of educational targets of this kind is only the beginning of a new approach to educational development. It will provide the sense of purpose necessary to reestablish the lost leadership. The first obstacle will be to convince the responsible parties that this approach is not only feasible, but worthwhile.

B. The Objectives: Coverage

Quantitative targets represent an indispensable component of a serious educational policy. In almost all of the surveyed countries, coverage is far from satisfactory at the primary school level, and policies to expand coverage at the pre-school and the junior high school levels are not clearly defined. The setting of coverage targets, however, presents a number of complications when combined with qualitative targets. The fact is that expansions of coverage require funds that could be allocated to improvements in quality. This trade-off is never recognized nor dealt with properly in educational policy considerations in these countries. Nevertheless, the issue is inescapable: if expansions in both frontiers are desired, clear choices will have to be made in terms of how much improvement in each of them is to be implemented, and at what cost.

Besides the financial trade-off between quantity and quality, we must recognize the existence of an academic trade-off. As qualitative standards are increased, repetition and dropout rates can be expected to increase too, negatively affecting coverage. How many students from a given age cohort can successfully finish the primary cycle at a certain level of academic achievement? In other words, what is the price a society is willing to pay in terms of fewer numbers of students completing a cycle in exchange

for more quality? These questions present a number of interesting issues. If a society needs to raise the quality of the education of its students, it may have to sacrifice the number of graduates, unless it adopts a policy by which students are given educational recognition or certification on their individual abilities to achieve up to a certain point, while the most skilled are also given opportunities to develop their maximum potential. Coverage targets by themselves, on the other hand, can be defined in many ways. For instance, universal access can be defined in terms of the availability of a school for all individuals in a given age group. Yet, universal access can be limited by a system that, by demanding high achievement standards, rejects a number of students from the system as dropouts.

Dropout and repetition rates are frequently mentioned as possible target variables. It is obvious that a reduction in the number of repeaters liberates resources that can be used elsewhere in an educational system. From that point of view, reducing the repetition rate is consistent with any quantitative or qualitative enhancement policy. The issue of the dropout requires a closer examination. In educational systems that are strapped for funds and cannot provide either sufficient coverage or satisfactory quality, the reduction of the number of dropouts may only be accomplished at too high a cost. We do not know how much quality or coverage must be sacrificed to rescue a dropout in any given year during, for instance, the primary education cycle. Is a dropout proof that the system does not work? Are dropouts a measure of how effectively limited the coverage of the system is?

This discussion by no means pretends to reach a decision formula to deal with these problems in a definitive way. They are brought up here to point out the many dimensions of educational policy that should be taken into account before a serious effort is made to reverse the current crisis, especially under a severe financial constraint. The point to underline here is that a given amount of resources--financial, human, and managerial--utilized with maximum efficiency can produce a certain combination of coverage and quality of education. If, as a result of some changes in the system, the number of repeaters decreases, more resources are available to pursue wider coverage and improved quality. A reduction in the number of dropouts has the opposite effect, however, since it adds pressure to the system for more resources, which means that with the same volume of resources a decrease in dropouts will reduce coverage, quality or both. These interrelationships ought to be in the minds of policy makers at all times.

C. The Resource Constraints

The resources available to education are of various kinds: financial, human, managerial, and institutional. A fixed amount of any particular resource at a point in time represents a constraint. The meaning of a constraint is important in economic analysis since it represents a factor that cannot be changed in the short run and provides the limits for policy actions. It is critical to recognize the constraints to avoid unrealistic policy designs and implementations.

The **financial constraint** is reflected in the annual budget in the short run, but it can be modified as a matter of public policy in successive years. For this analysis, it is the most important constraint since it is considered especially severe in the countries surveyed. The funds allocated to education, and their distribution among different educational activities and levels, is generally a matter of public policy, over which the ministries of education may have little influence for reasons discussed elsewhere. The central government proposes the educational budget based on fiscal projections that are prepared annually.

An increase in the level of educational financing would require a close examination of the entire fiscal framework, since the educational budget is relatively large and its increase can generate a serious imbalance in the fiscal system. Based on the analysis of the countries surveyed, the most important decisions for effective educational development must take place at this level, either augmenting the level of domestic funding, changing its composition among educational levels, or a combination of both. Although large budget increments for education cannot be implemented in the short run, experience shows that the level of government inefficiency is such that a significant volume of resources could be liberated from other sectors and reallocated to education.

Other resource pools or constraints also need to be identified. For instance, the teaching endowment, as measured by the number of teachers, their educational backgrounds, experience and remaining years of service represents the most important **human resource constraint** today and in the near term since this constraint cannot be changed radically in the short run. Another dimension of the human resource constraint is represented by the quality and level of education of the student body at a particular time. Radical educational improvements may not be feasible if they demand activities or accomplishments from the students that are inconsistent with their capabilities.

The **managerial constraint** is defined by the organizational capacity of the educational system at a given moment. Although difficult to measure, it represents a crucial constraint with respect to the possibility of rapid expansion and improvement of the educational system in the short run. One aspect of this constraint is the ability of the managers, as individuals, to organize their own daily

work. A great many development efforts fail simply because the managers lack the necessary skills to establish priorities, distribute their time among competing tasks, apply good judgment, organize the work of others, lead successful staff meetings, and motivate the personnel under their command. It is important to emphasize that the requirements of managerial capabilities tend to be underestimated in Latin American public sector circles because of the tradition of political appointees and patronage. Educational development projects, as far as they depend on public sector managerial capabilities, should be designed with sufficient attention to these elements.

The **institutional constraint** is manifested in those elements outside the education sector that impede or facilitate educational changes at different times. For instance, a strong system of municipal administration in a region or a country could be supportive of decentralization efforts. Institutional constraints also include the level of understanding that exists in the rest of the central government about educational issues, the disposition of the business community to support educational development, and the willingness of parents to participate actively in the educational process. The state of relations with the teachers' union is also a constraint, since the degree of cooperation between unions and ministries can determine the feasibility of different strategies.

Resource constraints hold important interrelationships. For instance, more money (a relaxation of the financial constraint) can buy more instructional materials, partially substituting for teacher's effectiveness in the classroom. Another example of constraint interdependence is when an active community can mobilize funds in support of local schools, alleviating some of the central budget constraint. Good managers should be able to identify the possibilities of substitution among constraints in order to increase the efficiency of operations. For instance, at a given point in time, there may not be enough trainers to carry out a program. One option is to wait one year until all the trainers are available. A second option is to use available funds to conduct training sessions by teleconference using the few trainers available. This option requires six months before training can begin. A third alternative is to use foreign trainers who are more expensive but can start very quickly. In a situation with such options, cost-benefit analysis should be applied to help determine the best course of action if the amount of the potential savings is considerable.

The recognition of resource constraints is important because they represent the limits to educational development. If existing constraints cannot be changed at a point in time, educational development strategies in the short run must be designed realistically to maximize the utilization of the resources. If the availability of resources is too limited for significant or satisfactory educational development, long-run strategies must focus on changing the constraints. In the cases reviewed here, for instance, it is important to design a strategy that from the outset concentrates on expanding the availability of financial resources to education. In the meantime, however, other actions can be taken.

D. Combining Targets and Constraints

The best strategy is the one that produces maximum benefits within the constraints dictated by the available resources. In educational affairs, such a strategy (we can call it optimal) cannot be defined by a set of mathematical formulas. Rather, it is necessary to identify and examine different alternatives in terms of desirable targets and evaluate them against the resources necessary for implementation. Policy dialogues, therefore, should include a consideration of alternative goals and targets, the resource constraints, and the selection of those courses of action that can be implemented with the available resources.

One common deficiency of educational development policies in Latin American contexts is that they lack a precise definition of objectives. The goals are often so generally defined that is difficult to design concrete action plans without further clarification. The setting of specific targets helps organize the work and also helps establish accountability for the entire effort and its components. Qualitative improvements in primary education require the setting of specific targets to establish, first, the feasibility of the proposed effort and, second, the formulation of the action plan in which all those who participate know what their duties are and can be held accountable for them.

Admittedly, however, in many instances the setting of specific targets is avoided by the personnel in charge of projects either because they do not feel committed to the project, or, they do care about the project, but do not have enough control over the resources to accept responsibility for success or failure. This is a permanent problem in public sector undertakings where the potential beneficiaries do not have the influence to participate--especially if they are primary school pupils. It takes very dedicated managers and highly efficient work environments to make a public sector project perform at high levels of efficiency.

E. The Educational Crisis in a Wider Context

The depth of the educational crisis transcends the educational sector, not only from the standpoint of its implications, but also with respect to dealing with the problem and implementing effective solutions. An example of this was already offered in the discussion about the need to expand the educational budget and/or change its composition. The rest of the central government and the legislative branch must make the critical decisions to accomplish this. Nevertheless, there are many reasons to doubt the ability or willingness of governments to make the right decisions regarding educational development. Perhaps non-governmental agents must be identified and recruited as potential instruments in definition of a new strategic approach, or as advocates for the educational development of their societies. Non-governmental agents could be of different kinds and could exercise a variety of

functions. The most important sectors of activity from which non-governmental agents could be recruited are the following:

- The media and the press
- Private contractors
- Non profit organizations
- Organized business associations
- Teachers' unions
- Other labor unions
- Religious organizations
- Municipal governments
- Community organizations
- Professional associations
- Civic institutions

The potential importance of these groups in formulating a strategic approach would vary from country to country and according to project design. In all cases, it is imperative that the press and other communication media be recruited to raise the level of social awareness about the educational crisis, discuss the nature of the problem, and present possible solutions. Whether the solution is implemented by the public sector or by other non-governmental agents, public awareness is considered indispensable to provoke a profound transformation of the educational systems in these countries.

In addition, it is critical that whomever is in charge of a particular project be rewarded for success and held accountable for failure. Project failure often results from a combined lack of commitment and incentives to do a good job. A combination of rewards and accountability should help force the project management system to assume greater control over external influences and bureaucratic inertia.

F. A Strategic Transformation of Ministries of Education

A sine qua non condition of educational development is a profound transformation of the ministries of education, unless a government decides that the entire system should be privatized. Even in a privatized system, a coordinating or leading entity would be necessary. The strategic principles proposed here focus on the elimination of the bureaucratic powers of these ministries. This means, concretely, helping the ministries to unload the burden of school and personnel administration matters while concentrating on their true mission: the provision of education with sufficient coverage and quality to develop the human wealth of society. Based on this mission, the new ministry would be dedicated to performing the following functions:

1. Defining educational policies
2. Determining and recommending adequate funding levels
3. Allocating educational funds
4. Establishing academic standards
5. Monitoring academic standards and coverage
6. Providing guidance and technical support to teachers
7. Monitoring teacher training
8. Conducting and/or promoting educational research

These basic functions must guide the rest of the tasks that the ministry should perform to increase its effectiveness. These include: remodeling accounting, reporting, and budgeting systems; decentralizing administrative functions; improving planning capabilities, especially in the area of investments; and, developing an information system. Yet, these elements **should not become the leading activities** in the transformed ministry. The leading activities are precisely those detailed in the eight points above. They are concerned with defining direction, executing the implementing actions, and verifying that goals are being met. However, the ministry, in carrying out many of these eight functions well, is dependent on the success of these other administrative functions. For example, it cannot monitor well without a good accounting and MIS system and it cannot allocate resources appropriately without a good budgeting system. The transformation of the ministry of education's duties needs to be buttressed by improvements in its supporting management systems.

It is imperative to stress that this conception of a new ministry of education **eliminates the administration of learning establishments by the central**

ministry. Teachers, principals, and other personnel working in schools would not be under the ministry's payroll. Obviously, this could not be done overnight, but it is feasible, and it may be the only way to rescue these countries from the situation in which they find themselves.

The new ministry should redefine the concept and nature of the supervisor. Teachers always welcome assistance and support in pedagogical matters, such as those concerning teaching methods and development of instructional materials. These services are rarely provided today in many countries. Supervisory functions in the old style would become obsolete, given the new working relationship between the school and the teacher. Should these teacher support services be offered from regional offices? Should the offices belong to the schools or to the ministry? Who would select personnel under each option? These questions only serve to illustrate the many issues to be discussed and problems to be solved before the first steps are taken.

As the new functions are defined in detail and put into practice, the new division of labor in the ministry should follow naturally. Under a new strategic concept, the modern ministry of education would not have any administrative relationship with teachers nor a collective bargaining relationship with unions. The ministry's staff would be composed of highly trained professionals and technicians in the fields corresponding to the functions listed above, with a central office in the capital city and regional offices conveniently distributed in the national territory.

In the financial arena, the ministry's two main responsibilities would consist of obtaining sufficient funds from the central government budget and allocating those funds most efficiently. The power of the new ministry would reside in its allocative function. In order to make a given educational establishment comply with a predetermined set of standards, mostly academic, the ministry could withhold funds temporarily.[48] The ministry would not make decisions about salary scales nor about school supplies, maintenance or any other day-to-day activity. These elements constitute the basis for a functional decentralization process.

The allocation of funds to the schools or educational establishments would be ruled by a set of formulas that would give each establishment an amount of funds proportional to the number of students enrolled. The establishment would have total autonomy over spending decisions, for instance, what salaries the teachers should receive based on competitive conditions, how much should be spent on maintenance, how much on instructional materials, etc. Although the ministry could provide guidance regarding salaries, the ultimate determination would reside with the local establishment based on the type of personnel they want and how they can attract them to their area. The system, of course, cannot be installed overnight, due to lack

[48] In fact, the extension and limits of the powers of the ministry of education should be a topic of discussion.

of experience at the decentralized level. The new system would have to be implemented gradually with a carefully designed process of trial and error.

All this, of course, requires the definition of components and preconditions that would take a level of effort well beyond the scope of this paper. Different alternatives would have to be tried, closely observed, and evaluated. The end product would be a new ministry of education, streamlined and competent, in charge of obtaining and allocating funds, providing guidance and support, and making schools accountable for their results.

G. Transforming the Teachers' Unions

Under this new decentralized framework for ministries of education, teachers' unions would also find their roles changed in many ways. First, they would no longer participate in teachers' salaries determination by direct negotiation with ministries of education. Under the new system, salaries would be determined in a decentralized way but unions could still lobby government administrations and legislative bodies for more funds for education.

Teachers' unions could also provide information services about labor markets for teachers, such as vacancies, temporary replacements, and transfer opportunities, all carried out by decentralized entities. Relevant labor market information could cover data on salaries paid in different locations, preferred communities, differences in local benefits, etc. The union could be an effective instrument for promoting competition among the communities for the best teachers, and also for promoting cooperative forms of competition among teachers on behalf of the permanent improvement of the profession.

Teachers' unions could also be influential in teacher training efforts. They, in conjunction with ministries of education, could promote the teaching profession and help restitute lost status. The new unions could be somewhat less political in the traditional sense, although they could be influential during the educational budget process, and act as part of the system of checks and balances of education.

It is obviously advisable that the new unions be managed by democratically elected leaders and not by the traditional union professional that tends to perpetuate him or herself in power. Even though this sounds almost impossible in the current context, the decentralization process, if effective, would generate conditions under which the unions could move into new directions. The decentralization of the administration of resources would, in fact, eliminate many of the reasons for the unions to be centralized. As the decision making powers move out of the ministries of education, the unions' operating context would also change.

H. Decentralization

It is improbable that educational development can take place in the highly centralized systems currently responsible for the management of education in these countries. Without a transformation of such systems, significant educational development does not seem possible. Decentralization is often mentioned as one of the critical ingredients in the modernization of the ministries of education proposed in this paper. Despite the frequency with which this term is applied as a solution to many educational and other problems, there are no universal formulas for decentralization.

First of all, it is necessary to point out that decentralization is not a dichotomous issue. There are many forms and intensities of decentralization processes. In many cases, decentralization proposals sound more like negative statements about the existing systems than concrete definitions of a new system. In fact, decentralization occurs as a rejection of systems that are perceived as not performing their functions well while concentrating too much power centrally. It is generally believed that they do not work because the top officials cannot cope with all the decisions that must be made. Perhaps the reverse is true. Perhaps the system become "centralized" due to lack of clear definitions of purposes, functions, and divisions of responsibilities.

Whatever the origin of the centralized organization, **the purpose of decentralization is to increase efficiency and improve quality**. Operationally, decentralization consists of delegating certain decisions and functions to be performed by different or smaller administrative units. In the case of education, one concept of decentralization could be the transfer of the administration of schools and their corresponding funds, personnel, and assets to management entities different from the ministry of education. Such entities could be municipal governments, community organizations, or boards organized for the purpose of administering individual schools or groups of schools. The author favors a high degree of autonomy for the schools, tied to a system of strict accountability for the use of public funds and the quality and coverage of the education imparted.

Decentralization per se would not enhance the availability of funds, but it should create the conditions to improve the utilization of the available resources and establish the accountability mechanisms to improve the quality of the educational output. Decentralization would allow the ministry of education to free itself from the distraction of countless administrative problems and concentrate on one of its central missions: obtaining sufficient funds from the central government and the legislative branch of government.

If quality and efficiency goals are achieved via decentralization, the road is paved to demand from society more funds for additional educational development. Even if decentralization could mobilize local resources, it is doubtful that these countries

could satisfy all their financial needs in education by tapping local sources. It can be assumed that additional centrally-funded resources would be necessary not only to complement current allocations plus future local funding, but also to help reduce possible regional disparities in capacities to raise non-government funds.

There are two sides to a decentralization process. One consists of taking some functions from a centralized entity. The other is landing those functions in a supposedly decentralized entity. An authentic decentralization process involves a real transfer of decision-making powers. Otherwise, the decentralization becomes an illusion and, possibly, ends up creating more bureaucracy than before. When a particular function is transferred from the center to a decentralized entity in a genuine decentralization process, that function generally undergoes a transformation of some kind. In reality, and depending on the nature and depth of the decentralization process, some functions may disappear altogether while new functions may arise. In other words, decentralization should not be seen as a process of reshuffling managerial functions.

The concept proposed here is not committed to a specific form of decentralization. The only precondition is that the decentralization be authentic, not illusory. The reason for not defining a specific decentralization system is that such systems are, by nature, highly idiosyncratic and must be developed in every country as conditions allow. In general, an experimental approach is recommended. For instance, some schools could be placed under municipal administration, others given complete autonomy, while a third group could be given to community organizations. This approach should be formulated, implemented, and evaluated under methods and techniques similar to those of pilot projects in the field.

The main hurdle on the road toward decentralization will be the lack of managerial experience at a decentralized level. This notion has been pointed out by those who oppose decentralization (generally for politically self-serving reasons). They argue that for this reason decentralization will fail and, therefore, "should not be tried." Indeed, decentralization has many enemies since it eliminates opportunities for those who currently thrive in the managerial mess of many countries' public administrations. Notwithstanding these arguments, managerial capacity at decentralized levels is a legitimate problem.

Decentralization seems to be an inescapable component of any solution. The real challenge lies in finding alternative ways to design the process and to implement it. In order to succeed, it is important to prepare the decentralization efforts with utmost care and on a small scale in the beginning, in order to keep the process under control. Part of the planning should include the participation of all those who would play a role, no matter how modest, in the final success of the effort. Because the idea of decentralization will have to be "sold" to many individuals, it should be promoted

through a social marketing campaign explaining the concept, its advantages, and its challenges.

It is also important to anticipate all the legal implications of different alternatives since current legislation may impede in decisive ways the success of specific efforts. A well-planned decentralization program could fail in the legislative assembly if the legislators were not given either a sense of participation or an opportunity to understand the purposes of the plan. As a result, part of the communication effort should be aimed at legislators. Whatever the strategy adopted, the process should start by defining the activities of the new ministry of education listed in section F above.

I. The Role of the Private Sector

Part of the initial decentralization effort could include experimenting with a small group of private schools with a system of vouchers, similar to the one installed in Chile which reported great success. Nevertheless, heavy reliance on the private schools may not be possible in the countries surveyed since the private sector is relatively small, and is, indeed, practically nonexistent in rural areas. The issue remains, however, of whether, in the long run, the entire school system could become private with the role of the public system concentrated on the setting of policy and standards and the allocation of funds.

Whether the system should operate on a for-profit basis or not is also an open question. A profitable entity is acceptable as long as profits are not earned under any form of coercion. In other words, such a system would be workable so long as it is competitive, with individuals free to accept the services offered by competing entities, and entrepreneurs free to open new facilities. The only precondition would be that the establishments adhere to a set of quality standards regarding the nature of the service to be delivered.[49]

Private sector participation is one of the issues that should be discussed publicly in these countries. The private school system has demonstrated in several countries that it can offer a better quality education and possibly a more efficient one than the public system. Yet, it has done so with a much smaller segment of the school population, and also with generally better students. Is it realistic to expect that the private system could replicate its performance with a much larger segment of the school population consisting of students from poorer family educational backgrounds?

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[49] There are many pre-conceptions about the ethical implications of profit-making educational establishments. This is not the place to discuss these issues at length. Nevertheless, the profit motive in education is a topic that should be openly discussed in order to eliminate its ideological or dogmatic implications.

It would be highly risky to suddenly increase the role of the private system without first determining its ability to absorb significantly larger numbers of students. Nevertheless, an initial role could be provided for the private system in facilitating the creation of new schools in these countries. Educational legislation and government regulations in many countries represent important obstacles to the development of new private establishments. This is an alternative worth investigating in detail to determine its potential as a complement to educational development in the public sector.

J. The Teacher as the Main Actor

As mentioned earlier in this paper, there will be no effective and qualitatively sound educational development without the participation of the teacher. The involvement of the teacher in decentralization would stimulate creative capabilities and a sense of participation in the process. Eventually, teachers' salaries must increase in order to attract talented young men and women. Qualified, motivated teachers are necessary for the type of educational system that these countries need to enable them to compete globally. The salary issue, however, presents a formidable challenge in view of the current fiscal situation, complicated by teacher unions that demand higher salaries across the board without offering anything in return.

Any policy to increase teachers' salaries and/or the overall availability of funds for education must fulfill two conditions: a) it has to be designed with a long-term horizon, even if it starts in the short run, and b) it should be coordinated with the macro-fiscal possibilities of the country. The need for a long-run approach is obvious; there is not sufficient money in the short run. The need for a fiscally coordinated strategy is less obvious but equally compelling, since it is necessary to prevent inflationary pressures that would undermine the effectiveness of this effort.

Alternatives for the gradual increase of salaries should be defined and publicly discussed, in the context of the specific fiscal conditions in each case. A possible alternative could involve gradual increases to teachers (or communities) who are responsible for significant increases in academic achievement or other improvements.

K. The Role of the Parents

Parents have two potential roles to play in a major push for educational development. One of the roles is individual and is related to the direct support of the child in school. In this role, parents create adequate conditions for homework, interact with the teacher, and foster the importance of education to the children in the family. The other role is community based and is related to the school. Parents

can provide numerous forms of support to their children's school, especially in times of fiscal austerity.

There are no magic formulas to provide incentives for parental support of their children's education or school. Many children come from one-parent families or worse and it might be unrealistic to expect widespread parental support. Whatever the potential for increased parental participation, however, it would have to be tapped at the level of the community. This is another reason for a decentralization of the school system. If parents are to become more involved in educational affairs, it would have to be based on their sense of participation and their perception that there are direct benefits to that involvement. Parental involvement, on the other hand, is almost impossible or very difficult without the participation of the teacher. Teachers should be trained to deal with parents and encouraged to do so when the opportunity arises.

L. The Role of Municipal Administrations

Upon exploring decentralization options, municipal administrations appear as one of the most natural. Municipal governments offer a wide variety of managerial capabilities in handling public funds. Before committing a specific decentralization effort to municipal administrations (or any other class of institutions), their potential would have to be ascertained and tested in pilot projects.

Municipalities may be especially attractive decentralization options for rural schools (perhaps not all rural schools, depending on their degree of isolation), and for schools located in small urban communities. However, a large proportion of the school population lives in large urban areas where municipal administrations may not be as attractive, since their bureaucracy (and politics) resembles that of the ministry of education.

Despite the caveats, the concept deserves serious consideration. Even if the municipal administration option is not universally suitable for these countries, it may be ideal for an important number of schools.

M. The Role of International Development Assistance

It is imperative that international donor agencies take a different approach to educational development. The reason is that these countries have developed a chronic dependence on external funds to finance any activity that falls outside the budget of current expenditures. Even worse, some of these countries have already received funds to fulfill maintenance requirements that should have never been neglected. With rare exceptions, it does not seem worthwhile to continue

attempting the introduction of improvements in educational systems dominated by ministries of education that have become a major obstacle to educational development.

Foreign aid has been used by host governments to provide a temporary illusion of activity to stay ahead of a crisis that should have been addressed long ago. Under the current circumstances, the five major alternatives for effective donor assistance are: a) help decentralize education systems; b) help develop a sense of urgency about the educational crisis; c) provide direct assistance to private schools for the poor, bypassing the public system; d) provide technical assistance in public policy formulation, coordination, and implementation; and, e) promote policy dialogues where educational development is part of the main policy agendas of Latin American governments. In fact, the marginal presence of education in the public policy agendas of Latin American governments is mainly responsible for the damage done by budget cuts in times of structural adjustment.

Instead of directly funding educational improvements, international donors should condition all forms of assistance to the host country government's serious commitment to policy reform, structural change, and enhanced financial resources. This would require, as a first step, developing the level of social awareness regarding the gravity of the educational problem, especially with regard to quality, to empower the constituency which seeks a better education. Then, technical assistance efforts could be directed to implementing the changes in a way that would produce tangible results. The following are examples of specific projects that could be recommended:

- Define and implement a comprehensive policy of educational development by first **setting specific quality improvement targets**, time tables, the resources necessary to achieve the goals, and the institutional and legal changes to permit implementation.

- Define and implement a long-term educational financial policy whose objectives would be: a) increase the level of investments in basic education, b) obtain sufficient financing for maintenance, c) secure sufficient financing for minimum educational materials, and, d) gradually increase teachers' salaries to eliminate moonlighting and attract better teachers. This policy must be closely coordinated with macroeconomic and fiscal policies to avoid imbalances that lead to inflationary pressures.

- Define and implement a public awareness program about the educational crisis, its origins, consequences if nothing is done to reverse it, and possible alternatives. This effort would start by creating awareness in centers of influence that have a stake in the future of education in their country. Prime candidates to start the effort would be the private sector, and the media, with special emphasis on radio.

- Define and implement management development programs for top and middle managers in the ministry of education. This program would consist of a series of workshops where actual policy decisions could be made. The central objective of this effort would be to train and--especially--coach ministry officials on how to make effective use of their time on a daily as well as a long-term basis. This would provide the foundation for a decentralization effort and could be coordinated with the project described in the first bullet.

- Define and implement a national award system for excellence in education, aimed at individual achievers as well as at groups and schools. The objective would be to promote academic achievement at all levels and raise public awareness and demand for quality standards in schools. Part of the effort could include means to involve parents of students in the award system, in order to encourage parental support of the teachers' efforts.

- Define and implement management development programs for school-based or community-based management of schools. The program would start in a few selected areas to foster decentralization efforts and determine the causes of successes and failures. The central objective of these programs would be to develop the managerial skills necessary for decentralized decision making and the participatory mechanisms to create a system of checks and balances at the community level. These projects would explore and evaluate the relative potentials of different decentralized formats, including the potential of the municipal administrations in school management.

Latin American governments, especially recently installed administrations, could be helped to develop effective policy agendas in a more integrated fashion. In other words, fiscal and political pressures sometimes impose their agendas on the Latin American policy maker. This prevents them from organizing and planning their own agendas based on the long-term interests of the country. Experience shows that many well-intentioned public administrators complete their time in office without achieving their objectives. The traditional economic and political instability of Latin American countries puts a heavy demand on the time and attention of policy makers.

This is one of the reasons education usually takes a back seat to other policy priorities; it is perceived as one of the less urgent public services. It is also one of the reasons why the sector has been victimized as a result of adjustment regimes. Despite the fact that such regimes are not necessarily aimed at so-called social programs (a label that has damaged the education system in this particular regard), there is the generalized impression that such regimes are bad for education. The reality is different. It is true that many structural adjustment programs have been particularly

severe to education, but this is basically due to lack of understanding on the part of the people involved in designing the program. Adjustment regimes have unduly damaged the education sector due to a combination of two sources of misunderstanding: that of the traditional macroeconomist who does not grasp the long-term ramifications and interdependencies of educational policy, and that of education personnel who are not equipped to argue the economic benefits of education in times of crisis.

International donor agencies could play a very important role in helping governments adopt adequate public policy packages, because they can provide the human resources and the expertise necessary for these endeavors. Nevertheless, it is necessary for donor agencies to understand the issues and deal with them in a very frank way, especially with governments that may be more interested in the short-term gain of receiving assistance funds than in reforming the system in the long-term.

If a government is not willing to make the necessary sacrifices or show a minimum amount of determination to promote and achieve effective changes, foreign aid should be entirely suspended or concentrated in providing education of minimum quality for those that cannot afford private school. Education, in the author's view, continues to be the best form of investing in economic and social development in countries such as the ones reviewed in this paper.