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**PROGRAM  
EVALUATION  
STUDIES**

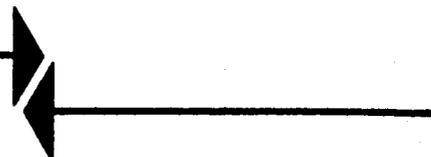
**Intercountry Evaluation of  
Education Sector Programs**

**Brazil  
Colombia  
Panama**

**December 1976**

**Agency for International Development**

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AGENCY FOR INTERNATIONAL DEVELOPMENT

BUREAU FOR LATIN AMERICA

PROGRAM EVALUATION STUDIES

INTERCOUNTRY EVALUATION OF EDUCATION SECTOR PROGRAMS

BRAZIL  
COLOMBIA  
PANAMA

by

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DECEMBER 1976

A.I.D. EVALUATION STUDIES REPRESENT THE VIEW OF THEIR AUTHORS  
AND ARE NOT INTENDED AS STATEMENTS OF OFFICIAL POLICY

INTERCOUNTRY EVALUATION OF EDUCATION SECTOR PROGRAMS  
IN  
BRAZIL, COLOMBIA, AND PANAMA

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## PREFACE

This report reviews A.I.D.'s experience with education sector loans (ESLs) in Brazil, Colombia and, to a lesser extent, Panama. Its purpose is to examine and compare experience under education sector loans in a number of countries and determine the implications of that experience for future assistance to education programs in other countries. The report seeks to reach generalizations useful in formulating and executing future education lending programs.

It was not the intent to appraise success or failure of individual country programs per se, to conduct a management audit, or to provide a possible basis for changes in the ongoing programs. The latter purposes were either outside the scope of our assignment, were not relevant, or were not feasible for various reasons. The main emphasis has been rather on the approaches to education sector programming.

Any critical comment should be considered a citation of evidence of lessons to be learned; it is not an attempt to assign blame for shortcomings or even to say that decisions, or actions, or omissions were necessarily wrong in the larger context of the circumstances of that time or the then-existing experience with education sector loans.

In accord with this purpose, the main focus of observation is on A.I.D. processes and needs rather than host country problems or on the detailed effects or results of the programs. There is no effort to appraise the validity of host country decisions or programs. Questions concerning them are raised only in a context of appraising the adequacy of A.I.D. analysis

and its approach to future education sector loans. The conclusions and recommendations thus are directed principally to A.I.D. for use in its operations rather than to the host countries.

The conditions under which the examinations were undertaken required that they be primarily "desk studies" involving study of documents and records, supplemented by interviews with various persons involved. Limited time was spent in the field. Three members of the group spent two weeks in Colombia in October 1974 and two members spent two weeks in Brazil in April 1975. Other members and consultants visited Colombia, Brazil or Panama on other occasions. Visits involved discussions with USAID personnel, examination of Mission files, informal discussions with host country officials, and visits to schools in Colombia and Brazil. An earlier team spent the period December 3 - 15, 1973, in Panama, during which time it reviewed basic documents, discussed loans with Mission personnel, interviewed Ministry of Education officials and observed schools in Panama City and the interior. We have, to some degree, drawn on the unpublished draft report of that team as a part of this study.

In the main, facts were drawn from and conclusions derived by comparison of various documents. Consequently, the report suffers from lack of depth of detail about the background setting and the how and why of decision-making. These problems could have been overcome by more extended actual observation of programs in operation and fuller interchange with those directly and immediately involved and concerned, but would have required substantially more time.

This volume consists of three principal parts. The first is a summary

of findings, recommendations, and supporting conclusions. The second consists of six chapters which lay out the subject matter in more complete but still relatively concise detail. The appendices examine in still greater detail the analysis documents and process on which the programs were based. While this format leads to a considerable amount of repetition for anyone reading through the entire volume, it appears unavoidable as the price of accessibility to readers with limited time or specialized interest.

Terms used in the report carry their generally accepted and understood A.I.D. definitions. We have, however, made no distinction between "sector assessments" and "sector analyses" as is currently done by A.I.D. Since we found the terms used interchangeably in the documents studied, we have taken the same liberty. Similarly, we do not distinguish between "purpose" and "goals" as in the Logical Framework for project design. Instead, terms such as "objectives," "goals," and "purposes" are used interchangeably. All refer to expected outcomes beyond immediate project outputs.

This summary report is the responsibility of a core team consisting of:

Edmond Hutchinson, American Technical Assistance Corp., Team Leader;

Charles Montrie, A.I.D., Bureau for Latin America;

Lawrence Posner, Practical Concepts, Inc.; and

William Charleson, A.I.D., Office of Education and Human Resources.

Hector Correa and Barkley Hudson of Practical Concepts, Inc. also assisted with the studies of Brazil and Colombia, respectively.

Drafts of the report were reviewed and commented on by USAID Missions in the three countries and the Education and Human Resources Division of

the Bureau for Latin America in Washington. Where feasible, modifications were made to accommodate comments received. The report is, however, entirely the responsibility of the team and does not necessarily represent agreement between the team and those who reviewed it. The findings, conclusions, and recommendations reflect the collective judgment of the core team and are not intended to represent the official views of the Agency for International Development, any of its constituent units, or of any of the governments participating in the programs.

## SUMMARY FINDINGS, RECOMMENDATIONS, AND SUPPORTING CONCLUSIONS

### FINDINGS

#### Program Objectives

Education sector loans in Brazil, Colombia and Panama were in support of country programs designed to bring about major changes in the role and purpose of education and in the nature of the education to be provided. All were concerned with using public education as a major social policy instrument to accomplish national economic and social goals.

All programs had as their major education objectives one or more of the following in varying degrees and at different times: the provision of the skilled manpower needed for development; inculcation of national values; increasing the employment and earnings of the recipients; increasing internal efficiency of the system; increased access to educational opportunity; and changes in the distribution of educational access and benefits.

#### Educational Conditions and Problems

Programs in all three countries were based on varying kinds of analyses which identified as problems remarkably similar conditions, mainly:

1. inadequate coverage of the school age population;
2. insufficient funds for expansion and improvements;
3. deficiencies in organization and management;
4. poor quality education due to inadequacies in:
  - curricula (outmoded and not "relevant" to individual and national needs)
  - teaching methods

- supply of materials and equipment
  - physical facilities; and
5. considerable wastage through high failure, repeater, and dropout rates; few who start primary and secondary levels graduate.

#### Program Elements and Underlying Assumptions

The major elements of the host country educational programs supported by the A.I.D. loans were very similar, involving in all three countries major changes in curriculum to substitute a higher vocational content and an "orientation toward work" for an "academically oriented approach"; teacher training in the philosophy and content of the new approach; and the construction and equipping of multi-purpose schools in which the new curriculum could be installed.

These program elements were based on certain common explicit or implicit assumptions, particularly with respect to the content of "quality education," the nature of a "relevant" education and its relation to student motivation and dropout and repeater rates, and relations between teacher qualifications and teaching methods and educational results.

In contrast to these common elements, the A.I.D. approach in support of sector programs differed significantly among the three countries:

1. In Brazil, A.I.D. concentrated in the first loan on supporting a program of building, equipping, and staffing a number of model junior/secondary multi-purpose schools to serve the purposes of demonstrating the basic concepts which Brazilians were seeking to introduce into the system. The second loan concentrated on stimulating the participating state governments to organize themselves to develop their planning and

operational capability, and to administer programs more effectively.

2. In Colombia, A.I.D. undertook through five sector loans to provide general support for Colombia's education efforts, relating support rather specifically to agreed-upon increased levels of budgetary resources for education and very loosely to the kinds of general qualitative improvements the Colombian government agencies were interested in.

3. In Panama, the first loan aimed at improving education management as well as providing physical facilities. However the bulk of the funds went for the construction and equipment of additional school buildings, with minor amounts for system improvement. The proposed second loan envisaged support of construction and equipping of a number of model elementary schools, plus development of new curriculum, methods, and teacher preparation for those schools as part of Panama's program to reorganize its entire education system. The elements of this loan were thus similar in several respects to the first Brazil loan.

#### A.I.D. Analysis

The A.I.D. planning processes underlying the loans included supporting program analysis compiled into "sector analysis" or "sector assessment" documents or incorporated into the Capital Assistance Papers (CAPs).

These studies constituted an unprecedented effort in A.I.D. in undertaking a systematic diagnosis and presentation of the problems and considerations that lay behind the proposed A.I.D. programs. Despite the large effort, the studies displayed a number of shortcomings in providing a rationale for the programs financed by A.I.D. These shortcomings in

analysis can be traced <sup>1/</sup> through to various shortcomings in program design and evaluation that we believe have limited the potential demonstration value of the programs as innovative approaches to and possibly their effectiveness in solving the educational problems identified and in promoting educational development generally.

#### Program Implementation and Evaluation

Methods of loan implementation varied from country to country with variations dependent in part on the purposes of the loan and the approach to support of the sector.

1. In Brazil, a comprehensive system was established for administration and implementation of the projects supported by the loan programs.
2. In Colombia, A.I.D. financing was provided through non-project financing related to Colombian government allocations to education.
3. In Panama, the first loan appears to have involved direct A.I.D. supervision of construction activities.

The nature and extent of A.I.D. evaluation also differed from country to country. No provision was made under any of the loans for evaluation at the project purpose levels and beyond.

1. In Brazil, a comprehensive and effective system was installed by the government to monitor progress at the output level.
2. In Colombia, little attempt was made to evaluate results of the program. This was probably due mainly to the nature of the financing arrangements and the absence of direct relationship of A.I.D. financing to particular Colombian education programs and accomplishments.

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<sup>1/</sup> Summarized in Recommendation #3 and Supporting Conclusions below (pp. 8-11)

3. In Panama, no special evaluation system was arranged beyond the usual A.I.D. project implementation monitoring.

#### Specific Achievements

1. The number of schools built and the number of classrooms provided under the A.I.D. assisted programs were substantial in all three countries.

2. The number of teachers and other educational personnel trained also increased in the three countries particularly in Brazil and Colombia. We have no basis for evaluating the quality of the training received or for appraising the quantitative significance in relation to needs.

3. While information on which to base a conclusion as to effects on administrative improvement is scarce and inconclusive, it appears that the programs did result in an improvement in budgetary and payment procedures in Colombia and in planning and program implementation procedures in the Ministry of Education and in the participating states in Brazil.

4. Sufficient time has not yet elapsed to permit an appraisal of the effects of the programs upon broader purposes and goals. In addition, procedures have not been installed which will permit meaningful evaluation of such results. While numerous benefits likely resulted from A.I.D. inputs, the relationship between inputs and benefits is not entirely clear.

## RECOMMENDATIONS AND SUPPORTING CONCLUSIONS

We recommend that A.I.D.:

#1. Reconsider and redefine its conception of the purposes of a sector approach in education and its expectations as to what can be accomplished by such an approach.

A revised education sector approach should:

- a. direct sector analysis toward A.I.D. objectives and decisions which emphasize options and the possibilities for more than one educational approach or of "hybrid" strategies;
- b. support selected program elements on a shorter run, more experimental basis;
- c. contain sufficient flexibility to permit revision of programs as experience demonstrates a need for changes;
- d. include a program of research designed to develop out of A.I.D. experience and results of other research a more adequate understanding of the results of particular kinds of education and types of programs and their relationship to A.I.D.'s interests.

### Supporting Conclusions

(1) The experience suggests that the strength of a sector approach lies primarily in its potential for establishing a framework within which it is possible to delineate purposes, define the system of relationships which bears most directly upon their accomplishment, and analyze problems, their causes, and program options.

(2) However, the sought-for "cyclical process of analysis, planning,

implementation, evaluation, and repetition of the cycle" has proven elusive. This does not mean that the effort has not been worthwhile, but only that it has not succeeded in achieving the aim of systematizing the approach as intended.

(3) Sector planning and programming nevertheless remain a promising way to tackle education development problems, although pitfalls are numerous.

(4) The process of development of sector loans can provide the occasion and focus for host country consideration of and decision on educational policy, strategy and programs. Procedures for implementation can provide the host country with a means for stimulating and accomplishing basic changes within constituent parts of the system.

(5) In practice the sector loans mainly supported the educational policies and programs already developed (in some cases with A.I.D. technical and financial assistance) and adopted by the host governments. Little effort was made by A.I.D. to change them or to condition sector assistance on adoption or execution of specific policy measure. We do not imply that attempts to influence policy by conditions on aid would have been desirable. Rather, the more important point is that the sector approach might have served to encourage more innovations and experimentation with significant departures from traditional educational solutions and approaches and to test a variety of alternatives that might have proved preferable.

¶2. Avoid an over-standardized or rigid conception of "The Education Sector" and define the sector in each case in relation to program objectives in that case, e.g., in terms of a target group or other specified objectives.

#### Supporting Conclusions

In the programs examined, we conclude that a definition of the sector as

a functional segment of the economy and society rather than in relation to specifically identified objectives or target group interests resulted in a lack of focus for analysis and of criterion for judgment as to the appropriateness of program content. The purpose should be to define the sector in a way that will establish a framework for analysis and program formulation specifically related to A.I.D.'s areas of concern.

#3. Revise programming instructions to clarify and further define the purpose, coverage, scope, analytical content, and relation to the programming process of sector "analyses" or "assessments," including the analytical sections of program and loan approval documents.

- a. We recommend that the analysis which A.I.D. does for its own purposes be clearly distinguished and separated from sector analysis done by a country for its purposes, whether with or without A.I.D. assistance. A recognition that the two are directed at different purposes and are likely to (and should) be quite different in nature should be basic to formulation of A.I.D. guidance as to the nature of sector assessments done as a part of A.I.D.'s planning process.
- b. To reduce unnecessary duplication and repeated "discovery of the wheel," the guidance might also identify and provide or suggest use of some basic material describing and analyzing educational development problems to use as a basis for comparison of the particular details in individual country analyses.
- c. It appears to us that the sector assessment should be designed to be a basic document for the development of A.I.D. strategy in

particular areas (sectors) and for laying out the framework of the assistance to be provided in that area, its nature and content, and probable size and duration.<sup>1/</sup> As such, it must analyze objectives and purposes, problems and their causes, educational and development hypotheses, program options (including those rejected), costs and their implications, and the interrelationships among such factors. Capital Assistance Papers (CAPs) (or Project Papers -- PPs -- in current terminology) on the other hand are appropriately concerned with specific details of financing of segments or phases of that program proposed for financing, with individual adjustments based on experience, and with details of implementation. Analysis contained in sector assessments would not be repeated in the CAP but might be referred to and would serve as the fundamental basis for the individual loans covered by the CAPs.

#### Supporting Conclusions

(1) The various education studies and analyses undertaken by A.I.D. prior to or in connection with the A.I.D. sector loan programs provide a reasonably coherent picture of the system of formal public school education in the respective countries and an improved base for problem identification and loan development. Taken together, however, they fall considerably short of providing an analytical base for programs that relate overall national development goals and education policies to specific and detailed programs and accomplishment targets and to financial and managerial constraints and requirements.

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<sup>1/</sup> And related to the other program planning documents which may contain preliminary, supplemental analysis or other related material.

(2) There has been a lack of clarity about the purposes which various documents in the A.I.D. decision-making process serve. This has given rise to lack of focus and coverage in analysis, to substantial duplication as between sector assessments and CAPs, and to confusion about the relevance to decisions of a large volume of miscellaneous data, facts, and descriptions which field missions felt they needed to submit repeatedly to A.I.D./W. Lacking focus, the documents did not provide an in-depth critique of the country's sector development policies and programs, or assess the alternative useful roles A.I.D. could serve with alternative aid program approaches.

(3) Incomplete analysis has left A.I.D. and host governments operating on various assumptions that need intensive examination. There is enough contrary evidence and differing opinion and judgment among educators and other social scientists to warrant careful examination of such assumptions.

(4) There is a need to improve the coverage, depth and validity of analysis. Dissatisfaction with the quality of analysis is in fact creating pressures for expansion of the scope of analyses and of assessments. On the other hand, while better analysis is undoubtedly needed, there is danger that quantitative expansion may become so heavy as to overload A.I.D. staff with data and documentation requirements without remedying the analytical deficiencies, and make the burden unmanageable. A.I.D. should avert the latter by concentrating on quality and relevance. The major need is for clarification of purpose, limitation of scope, emphasis on analysis related to decision making, and restriction of information and data to that essential

to analysis rather than attempts at ever-larger coverage and submission of more and more information not specifically related to decision-making requirements.

(5) The commonality of the basic educational and developmental assumptions involved in all the programs and the similarity of the problems identified suggest the possibility of dealing with many of the aspects of education and development involved in sector assessments on a general or a regional basis rather than in individual country sector assessments, particularly for the basic diagnostic phases.

(6) The evidence is that many of the problems of analysis arise out of difficulties in internal A.I.D. processes.

The similarity of the sector assessments and of the deficiencies we see in them suggests that the difficulties may arise from the nature of the guidance provided, especially lack of clarity as to just where they fit into the decision process and what decisions are to be based on them.

Most of the problems of the various sector analyses were recognized and commented upon a number of times by various A.I.D. offices and staff members, and by outside consultants. Various studies provided significant analysis over and above that contained in the formal A.I.D. documents. However, it appears that there were no institutionalized procedures by which such comment and analysis were brought to bear on the formal analysis and decision process or for follow-up to see that consideration was given to it.

- #4. Develop general guidance as to current thinking and theory and basic assumptions as to the role of education and its relation to economic development to be considered in formulation and support of future educational programs.

Supporting Conclusions

In particular, guidance is needed in the areas in which education programs can serve A.I.D. purposes, especially the effect of the "mandate" upon A.I.D. perceptions of the relationship to overall "developmental" objectives as a condition of A.I.D. assistance.

- #5. Develop general guidance as to the implications for the choice and design of education policies and programs of accepted (or conflicting) educational theory and practice and of results of researched educational experience concerning the relation between educational inputs and outputs.

Guidance should deal with identification of system variants which experience has or has not shown to be consistently related to students' educational attainment including such factors as teaching variables and instructional methods, curriculum content, type of school, and teacher qualifications. It should also include consideration of the extent to which experience suggests that repeater and dropout rates are a function of pedagogic and other internal system factors, and what a "relevant education" consists of as perceived by students and parents.

Supporting Conclusions

Recommendations 4 and 5 derive in part from the fact that a standard approach to education has been followed in the A.I.D. programs in the three

countries (and in still other countries) which involves the same educational philosophy and development theory and which embodies the same program elements directed at accomplishment of the same purposes without indication of the basis in experience or theory for accepting the validity of a common approach. We believe there is sufficient uncertainty as to the validity of that approach to justify its re-examination.

- #6. Re-examine the types of programs A.I.D. is now supporting and, in the light of A.I.D.'s New Directions, determine their expected and actual effects on enrollments and distribution of benefits as among social and economic classes, and urban and rural areas, specifically:
- a. whether present approaches are higher cost than adequate alternatives that could make benefits available to more people more quickly;
  - b. the effect of programs on access by the poor;
  - c. whether the new systems being adopted provide adequately for adaptation to varying local needs.

#### Supporting Conclusions

The support of education programs directly related to a concept of "development" defined in terms of macro-economic growth may be inconsistent with current perceptions and directions which emphasize "equity," distribution of benefits, and effects upon target groups, especially the rural poor.

- #7. Explore possible alternative approaches to rural education including examination of experience under these and other programs to determine the strengths and weaknesses of rural centers, satellite schools,

concentraciones rurales, and the like. In particular, the suitability of the multi-purpose schools for rural areas should be studied.

Supporting Conclusions

This is an area which appears especially worthy of further study and experimentation.

#8. Build into each loan an evaluation system which would: (i) permit revision of programs and purposes at the earliest date that evidence of results can be obtained; and (ii) provide inputs to a program of research designed to develop out of A.I.D. experience and results of other research a more adequate understanding of the relationship of particular kinds of education and types of programs to A.I.D. and host country objectives.

- a. use the standard Logical Framework for program design, monitoring, and evaluation, giving particular attention to consideration of the alternatives in program design, and to appraisal of accomplishments at the purpose level in the evaluation system;
- b. design the evaluation system to serve testing purposes as though the ESL programs were experimental or pilot undertakings even if they are not so labelled or perceived by the host country. Provide sufficient flexibility in the programming system to permit in-course corrections.

Supporting Conclusions

None of the loans evaluated used the A.I.D. Logical Framework or any comparable systematic method of program design. In the absence of such a framework, the elements that serve as the equivalent of the purpose level

(or above) are particularly vague, ambiguous and inadequate for useful monitoring and evaluation. The vagueness about expected impact at these levels is common to virtually all A.I.D. loans for sector or project lending; it is a "system deficiency" which appears in the Panama proposal (Spring 1975) as well as in the earlier loans made before the "Log Frame" was adopted as standard A.I.D. practice.

#9. More systematic consideration and testing of alternatives should become part of A.I.D.'s: (i) program strategy and analysis; (ii) project design and implementation procedure; (iii) all program management systems (including PBAR); and (iv) personnel training programs.

#### Supporting Conclusions

A large portion of the program problems examined in this study seem to have stemmed from unexamined, unverified, or inaccurate assumptions about the nature of the problems dealt with, and the appropriateness or effectiveness of the approaches chosen. While we can accept that many of these assumptions and approaches warranted verification through actual testing, we are convinced that the testing would have been much more fruitful if organized, controlled, and evaluated as such, and if provision had been made for testing of plausible variants. The above recommendation follows from our conclusion that this is a system problem that A.I.D. needs to solve by making appropriate changes in the system at all relevant levels.

CHAPTER I  
PROGRAM SUMMARY

AMOUNT AND TIMING OF LOANS

In Latin America, as of the spring of 1975 when the bulk of our investigations were completed, AID had made education sector loans in Brazil, Colombia, and Panama and was considering another such loan in Panama as follows:

<u>Country</u>	<u>Date (authorization)</u>	<u>Amount (million)</u>
<u>Brazil</u>		
L-078	6/29/68	\$32.0
L-081	6/29/70	<u>\$50.0</u>
Total		\$82.0
<u>Colombia</u>		
L-054	5/19/69	\$10.0
L-059	5/28/70	\$15.0
L-060	6/17/71	\$20.0
L-066	5/25/72	\$20.5
V-073	7/30/73	<u>\$10.0</u>
Total		\$75.5
<u>Panama</u>		
L-036	6/25/70	\$ 8.5
Pending (Spring 1975)		<u>\$12.0</u>
Total		\$20.5

PROGRAM OBJECTIVES

These loans were in support of country programs designed to bring about major changes in the role and purpose of public education, in the nature of the education to be provided and to improve the management of

**PART II**

**EVALUATION AND APPRAISAL.**

education delivery systems. All were concerned with using public education as a major social policy instrument to accomplish national economic and social goals. They thus incorporated objectives with respect to contributions to economic growth, income distribution, social mobility, equalization of opportunity, vocational capability, and changes in individual and group motivations. The developmental role of public school education was perceived as providing the skilled labor of the kinds, in the amounts, and at the times required by a developing society. All were based on the underlying view that education must be related in a demonstrable way to some concept of economic development.

Programs had as their major objective the provision of an education which would provide the skilled manpower needed for development, inculcate national values, and increase the employment and earnings of the recipient. Increased internal efficiency of the system was another important objective. Increased access to educational opportunity and changes in the distribution of educational access and benefits were also significant objectives in varying degrees and at different times.

#### SECTOR DEFINITION

The "education sector" was not explicitly defined in any of the three cases, although for program purposes it was clearly considered to be the overall system of public education, with major emphasis, for practical operational purposes, on the primary/secondary subsystem of the public school education system.

#### EDUCATIONAL CONDITIONS AND PROBLEMS

Programs in all three countries were based on analyses which identified remarkably similar conditions and problems, mainly:

1. Inadequate coverage of the school age population;
2. Insufficient funds for expansion and improvements;
3. Deficiencies in organization and management;

4. Poor quality education due to inadequacies in:

- curricula (outmoded and not "relevant" to individual and national needs)
- teaching methods
- supply of materials and equipment
- physical facilities

5. Much wastage reflected in high failure, repeater, and dropout rates.

PROGRAM CONTENT

The major elements of the host country educational programs supported by AID loans were very similar, involving in all three countries major changes in curriculum to provide for substitution of a high vocational content and an "orientation toward work" for an "academically oriented approach," teacher training in the philosophy and content of the new approach, and the construction and equipping of multi-purpose schools in which the new curriculum could be installed. The basic strategy involved in the sector approach has also been similar; viz., to make available relatively large amounts of funds over extended periods of time to assist countries to achieve objectives contained in educational plans.

However, in contrast to the commonalities of underlying assumptions, problems identified, conceptions of the role of education, and program objectives and elements, the AID approach in support of sector programs differed significantly among the three countries.

1. In Brazil, AID concentrated on supporting a program of building, equipping, and staffing a number of model junior/secondary multi-purpose

schools to demonstrate the basic concepts which Brazilians were seeking to introduce into the entire system and to stimulate the participating state and local governments to organize themselves to administer programs more effectively and to develop their planning and operational capability. The second loan was designed to serve similar purposes and contained similar elements but provided for expanded state coverage, considerably more emphasis on organized state planning capacity and more flexibility both in selection of activities to be financed and in the amount of financing to be provided specific and distinct activities. Fund requirements were established in relation to estimated costs of the specific activities and funds were made available for the period projected for completion of the activities. The CAP for the first Brazil loan makes clear that the strategy was to select priority areas rather than try to do everything at once. The approach included a deliberately narrow focus of effort and the identification of key points of the structure for involvement.

The second Brazilian loan also provides for the financing of specific activities in the plan. However, categories of activities rather than specifically identified projects were established in advance. A jointly financed GOB-AID Fund was then established to help finance approved state government activities.

The means for accomplishing the overall objectives included the use and control of funds, planning, training, and demonstration in an integrated undertaking. Funds were established in advance of planning (in the case of the second loan) to serve as a stimulus to planning by states and to assure

the availability of funds to implement plans once formulated. In order to receive approval and funds, plans had to be designed to bring about changes in the educational system in accord with the established policy and philosophy. The "polivalente" school concept (a multi-purpose type school "oriented to work" with a high technological or semi-vocational curriculum content) was to serve a central role by providing a model for and a visible demonstration of the application of the changed approach to and content of fundamental-secondary education. The school building itself was to be a visible element with physical design related to changed approaches and revised curriculum. Training of teachers and administrators was to be related to the revised curriculum and to new teaching methods. Conceptually there was an integrated approach, with facilities, staff, curriculum, and pedagogy directed toward changing the system. This integrated concept as embodied in the polivante school was expected to serve as a catalyst for bringing about changes in the whole system.

2. In Panama, the bulk of the first loan went for the construction and equipment of additional school buildings, with minor amounts for system improvements, although earlier documents note that management was the key to that improvement. The proposed second loan envisages support of construction and equipping of a number of model elementary schools, plus development of new curriculum, methods, and teacher preparation for those schools as part of Panama's program to reorganize its entire education system. The elements of this loan are thus similar in several respects to the first Brazil loan.

3. In Colombia, the loan strategy contrasts sharply with that followed

in Brazil and Panama. AID undertook to provide support for Colombia's education efforts, relating that support (a) rather specifically to agreed-upon increased levels of budgetary resources for education, and (b) very loosely to the kinds of general qualitative improvements the Colombian government agencies and AID were interested in, including support of a multi-purpose secondary school system. Some of the CAPs attribute AID financing to particular activities; references are made from time to time to specific program targets, and loan agreements for later loans contain provisions for allocation of specified total amounts of AID and GOC funds to certain categories of activity. However, under procedures established in the loan agreements, AID funds were in fact commingled with GOC budgeted educational funds and became indistinguishable from them. CAPs and statements of USAID personnel make it clear that in fact the strategy was one of increasing education sector activity at all levels by increasing Colombian education sector budgets and providing fiscal assistance to that budget with AID loans.

#### AID ANALYSIS

The AID processes associated with the making of the loans involved the development of a large volume of "sector analysis" materials incorporated into numerous voluminous "sector analysis" or "sector assessment" documents and into the Capital Assistance Papers (CAPs). In some instances the sector "assessment" or "analysis" documents preceded the CAPS and in some cases they were subsequent to the CAPs or incorporated similar material included in earlier country assistance strategy papers. <sup>1/</sup>

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<sup>1/</sup> See Chap. 2 below (pp. 25-39) for extended treatment of this subject.

PROGRAM IMPLEMENTATION AND EVALUATION <sup>1/</sup>

1. Methods of loan implementation varied from country to country with variations dependent in part on the purposes of the loan and the approach to support of the sector.

a. Significant elements of methods used in Brazil were:

1. Decentralization of responsibility for detailed program planning and execution to state governments under the guidance and policy control of a specifically designated national agency with responsibilities only for the loan supported program;
2. Provision of technical assistance in planning and program management to state governments;
3. Use of a series of formal agreements between the national agency and the state governments in which the roles, functions, and responsibilities of the parties were defined;
4. The establishment of specific standards and criteria for release of funds by the national agency to participating states;
5. Use of a series of formal AID/GOB agreements specifying the conditions for AID release of funds for each program component;
6. Institution and use of a system of program progress reporting and joint AID/GOB review; and
7. Regular and systematic USAID involvement on a cooperative basis with the GOB in the identification and solution of problems of implementation.

b. In Colombia, the program was carried out through the established educational organizations (a significant reorganization of the structure of

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<sup>1/</sup> See Chap. 4 below (pp 59-65) for extended treatment.

the office responsible for planning and managing education programs was completed just prior to the first sector loan.) AID implementation activities were directed primarily at achieving timely disbursement of funds by the GOC and AID. Since the loans were for general support of the sector, monitoring by AID was related to funding flow requirements, rather than to substantive program purposes, progress or problems of program execution. AID disbursements were made on the basis of GOC estimates of funding requirements based entirely on financial data. Annual reports of program progress were received, but they were not related to program objectives as set forth in loan agreements or to specific loan agreement requirements.

c. In Panama, responsibility for administration of the first loan was placed in a special agency outside the Ministry of Education. The Ministry of Education is expected to be responsible for administration of the second loan. AID involved itself in rather detailed monitoring of GOP activities under the first loan and plans to do the same under the second loan.

2. The nature and extent of AID evaluation also differed from country to country.

a. In Brazil, a quite comprehensive and effective system was installed and used to monitor progress at the output level.

b. Little provision was made for formal evaluation of results of the program in Colombia. This probably was due in part to the fact that AID financing was largely supportive of all governmental educational activity at financial target levels, but without educational output targets.

c. In Panama, no special evaluation system was arranged beyond the usual AID project implementation monitoring.

d. No provision was made under any of the loans for evaluation at the project purpose levels and beyond. Design and evaluation system techniques did not include the following elements: targets and baseline data defining the target group and the benefits they were expected to get; consideration of the effect on school age children who would not receive direct benefits from the program (e.g., whether the program would siphon resources away from them); and indicators and targets for administrative capacity and institutional viability.

## CHAPTER 2

### AID ANALYSIS

Aid "analysis" as contained in the various sector analysis documents consists generally of a number of elements shared in common and some fewer differences, particularly in connection with the nature and extent of the analysis done. Major common elements include:

1. No specific definition of the sector, but a clear derived implication that for practical purposes it is considered to be the formal public school system from primary through university levels, certain specialized training institutions related to that system, and, at least conceptually, certain government operated programs of "non-formal" education;
2. Acceptance of the same basic educational and developmental assumptions;
3. Descriptions of the structure and composition of the public school system (grades and subdivisions, types of schools, nature of the curricula, and methods of administration);
4. An identification of "problems" in the sector, but no attempt to deal with their causes;
5. Descriptions of programs being undertaken by the respective countries;
6. Discussions of the financing of education;
7. Data with respect to enrollment, drop-out, and failure rates; and
8. In the case of Colombia and Panama, analysis in terms of the "internal efficiency" and the "external efficiency" of the system.

Material in these documents provides a reasonably clear picture of the system of formal, public school education in the respective countries. They also provide some indication of educational activities outside that system. Problems and deficiencies are identified, especially those affecting

primary and secondary education, and basic country objectives are set forth. However, these documents, the CAPs, and analytical materials in the files, taken together suffer from significant shortcomings from the point of view of providing a basis and rationale for the sector approach involving several loans and substantial financing over extended periods of time and for the content of the programs assisted.

#### PURPOSES OF ASSESSMENTS AND SECTOR AND PROBLEM DEFINITION

In all three cases the sector assessments appear to have been undertaken with the view that such assessments are made to examine some functionally distinct segment of a society or economy and identify problems in it. On the basis of that identification, judgments then are to be made as to programs which AID will support. The theory seems to be that, within broad policy constraints, AID will provide support to programs for the solution of whatever priority problems are identified. On its face, this seems reasonable. However, the assessments in the three countries examined are deficient in that they did not provide an analytical framework for specific analysis related to the kinds of decisions AID should and could have made.

The approach used has given rise to difficulties in defining the "sector" and "problems" in it. It overlooks the fact that neither "sectors" nor "problems" are absolute, definitive concepts. They must be defined and analyzed in relation to something. "Education" and a "sector" can be as broad or as narrow as one wishes to make it, depending on what one's objectives are. Problems are "problems" only in relation to perceptions of what ought to be or what conditions "should" prevail, or what results are desired, and what kind of programs, as a practical matter, can or cannot be supported. In the absence of a clear view of the relation of assessment and analysis to

purposes, sector assessments have been left without a focus for adequate delineation of scope, subject matter coverage, and information and data requirements.

For example, if one's concern is the well-being of the rural poor, or even with the provision of a pool of particular types of trained labor, the entire system of public school education may not be the appropriate "sector" for consideration and analysis. It may be too broad in that there may be only limited elements of that system which bear upon either concern. It may be too narrow in that there may be educational elements outside that system; i.e., non-education system elements may be much more relevant to such concerns. Similarly, internal inefficiency of the entire public school system or the total amount of resources going into public education are "problems" only if one's concern is for the widespread dissemination of public school education.

The assessments examined appear to us to offer clear evidence of this inasmuch as no definition of the sector is contained in any of them. That which is implicit may have been either too broad or too narrow, depending on what AID's assistance policies and purposes were. "Problems" identified and analysis made, accordingly, may or may not have been pertinent in such a context. We are also confident that many of the specific deficiencies in the assessments derive in considerable measure from lack of a conception of purpose which requires a specific relating of sector and problem definition and analysis directly to AID policies and objectives and its programmatic options. Specifically, there appears to be:

1. Uncertainty about the purpose and extent of the analysis required and lack of focus for delineation of information and data requirements and for their presentation;
2. A consequent tendency to include large masses of unanalyzed data the purpose and significance of which is not apparent with a resulting dissatisfaction which leads to constant

- AID/W pressure for expansion of the scope of coverage to include more and more areas of "education" or which affect or are affected by "education". The enormous size and subject matter coverage of the First Draft Panama Education Sector Assessment and material in "Sector Analysis" sections of the CAP for the third loan to Colombia are cases in point, and
3. A continued "updating" of sector assessment documents which has resulted in five such documents in the case of Brazil with little substantive difference among them with the additions being primarily added descriptive material and additional and updated data.

### ANALYSIS OF GOALS

None of the AID analysis makes any examination of the appropriateness of overall national goals for education. The Panama assessment does indicate how such goals are related to broad societal goals as do country plans to some extent in the case of the other two countries. There is, however, nowhere any AID analysis of the validity of such goals from the point of view of generally accepted education theory, their appropriateness to country circumstances, or the extent to which such goals conform to AID policies and objectives, and the extent to which they are supportable within that context. There is some discussion of the rural poor, rural/urban imbalances in educational opportunity, and relationships between country goals and AID objectives. As a result of the absence of critical examination of the goals themselves, the assessments do not provide a basis for AID advice on sector policy or for choice by AID among basic assistance options or program elements to be supported or excluded from support.

Omission of examination of host country goals has been defended by AID staff on the grounds that AID cannot and should not try to dictate host country policy, that a "collaborative style" in the provision of assistance requires a non-aggressive AID posture, and that, in any event, host country basic policy decisions were quite firmly fixed and not likely to be changed.

Although these arguments may be true, they seem to us to be basically beside the point. AID as a provider of assistance has a responsibility for examining goals in terms of their soundness and conformance with AID objectives in order to make its own decisions on what goals it is (or is not) prepared to assist in accomplishing and on the extent of the assistance it is prepared to provide, if any.

The position has also been taken that the sector loans developed out of long periods of joint efforts between the host country and AID during which the appropriateness of national educational goals was jointly considered. The various AID documents do not contain any such analysis and the record provides no evidence on which to base any conclusions as to the extent or adequacy of any such analysis or consideration. The fact that the loans were approved, however, suggests that AID/W was not concerned seriously enough to raise this point. Not to have incorporated such fundamental considerations into the AID Sector Assessments, which are designed to serve as the basis for approval of the sector loan program by AID, appears to us a significant regrettable and unnecessary omission.

#### ASSUMPTIONS OF ANALYSIS

A further conceptual problem associated with sector analysis, as exemplified in the case of assistance to these three countries, has to do with the distinction between issues and questions which fundamentally must be settled and answered on the basis of generally accepted theory and philosophy and informed professional judgment, and those for which specific country information and analysis should provide the basis for decision. As indicated in Chapter 3 the programs being supported are based on a number of fundamental assumptions. The analyses do not make the assumptions explicit and indicate which are to be accepted on the basis of consensus on educational theory,

experienced results, and given policy, and which must be subjected to analytical examination or are to be accepted as experimental hypotheses and subjected to testing by the programs adopted.

Such questions as the relation of education to economic development, the role of education in income distribution, and the basic relations between input and educational outputs fall in the first category. Answers to them are not likely, it appears to us, to result from individual country sector analysis. They are matters much more appropriately approached through research programs related to multiple experiences than through "sector analysis." Failure to make such a distinction has had two results in the case of the sector analyses in question; either (1) assumptions or answers have been implicit without any indication of the basis in theory and judgment for their adoption or (2) an attempt to reach broad conclusions on the basis of analysis in the particular country case has led to incomplete and strained analysis and conclusions which are highly questionable on the basis of the evidence presented and the analysis made. Some of the analysis of "external efficiency" and in some cases that of relations between education and income distribution and of rates of return to education are examples.

#### PROGRAM ANALYSIS

A lack of critical examination of the program as a whole or of its major elements has paralleled the omission of what we have called "assumptions analysis."

As Chapter 3 below points out, certain implicit assumptions as to the validity or particular kinds of educational practices and pedagogical methods and as to relationships between inputs and educational outputs seem to have been accepted. AID documents, however, contain no examination or summary of studies of any other program elements from a strictly educational or pedagogical perspective. For example, they contain no analysis from the perspective of course mixes within the curriculum, the relation between courses and grade levels, the points at which vocational subject matter might be most appropriately introduced into the grade structure, of the assumed advantages of a "nine year basic cycle" over a six year or some other cycle, or the nature of teacher qualifications and training needed.

In a similar vein, problems in the sector were identified but the analysis did not, in most cases, show how program elements were related to problems in a specific and direct way.

In general, discussion of programs was confined to those to be supported by AID. Little attempt was made to appraise the relationships to all the other programs operating in the sector or the overall system. Even within the area of AID support, all programs were discussed as though they were of equal importance and no priorities are assigned. There was also no analysis of trade-offs among levels of education, types of education, educational methods, geographic areas, or quantity and quality. No consideration is given to the question of relative resource allocations within the program supported.

Similarly, the analysis documents do not directly address the question of a possible need for variations in the nature and content of programs in accordance with varying areas or regional conditions. It is true that in the case of Brazil each state prepares its own plan and the point is made of the possibility of varying the vocational content of the curriculum to some extent to conform with area differences. While there is variation in such things as agricultural versus commercial or industrial content of the vocational component, the curricula to be adopted are not basically different from state to state. It appears to us that under conditions of great variations in educational development and opportunity, extent of economic growth and development, and financial and other resources, an examination of the implications of wide variations in regional conditions and circumstances for educational needs, approaches, and programs is in order.

The Panama Sector Assessment contains much material which seems to question whether a program for extensive "reform" of the entire system is

preferable to selective strengthening of the existing educational program and placing increased emphasis on rural areas. It does not, however, bring the question to focus and analyze it. Such questions were not suggested at all in documents relating to programs in the other countries.

#### PROBLEM CAUSES

As indicated earlier, problems in the sector are identified in relation to internal and external efficiency criteria. However, causes of problems and their relative significance are not analyzed. Curriculum and teaching inadequacies are asserted to be causes of dropout, repeater, and failure rates. Factors external to the sector are also mentioned as possible causes. However, no inquiry is made as to whether such factors are, in fact, the significant causes and, in any case, whether internal factors alone are of enough importance to justify major system changes.

#### FINANCIAL AND COST ANALYSIS

All the analyses present data on educational financing, including information on trends in absolute amounts of expenditure and in educational expenditure as a percentage of the total budget and of GDP. No significant conclusions are drawn from the data. The Panama Sector Assessment examines the ability of the government to finance the estimated cost of the total education program contemplated. The CAPs indicate how the specific program elements to be assisted by the particular loans are expected to be financed.

The analysis is, however, essentially a financial analysis rather than a cost analysis. That is, it is in terms of how funds are to be provided to finance specific program elements rather than in terms of the way costs should affect program decisions and are likely to influence program results.

There were, however, problems even in the financial analysis. For example, the CAP for the first Brazil loan examines the possible sources of

financing of the specific program to be assisted. It does not, however, examine the prospective position, including the expenditure, revenue and debt position of participating states and their ability to continue and expand such a program or argue that the prospective financial position of the states was not relevant to consideration of the loan.

There is evidence that the financing of the programs adopted may have in fact presented some real problems. As is indicated below, financial stringency did in fact in the later stages of the program force significant reductions in the Colombia program. The AID Auditor General in his report of examination of the first Brazil loan raised important questions concerning the ability of the states to continue to finance the programs which were involved under the loan. In fact, it became necessary to reduce the specific program financed by the first Brazil loan because of the states' inability to finance increased program costs. While such cost increases were not related to continuing program costs, the inability to finance them did raise questions as to the financial capacity of the states. Logic and experience suggest that sector analysis should examine in some detail the financial implication of sector policy and programs. In fact, in view of the breadth of coverage of sector loan supported activities, the size and duration of AID and country commitments involved, the difficulties in changing such programs once they are underway, and the political, economic, and financial costs involved in lack of success of such basic programs, careful examination of financial implications and feasibility is much more important in the case of sector loans than in that of individual project loans.

The sector assessment documents contain some data on past per-pupil cost. There is, however, nowhere (with a minor exception in the Panama assessment) any analysis of what the probable per-student cost of the program supported is likely to be or what the implications of possible higher unit costs might be in terms of ability to generalize the programs throughout the

country, or of the possible effect of higher unit costs on the ability to increase or maintain enrollments under conditions of large unenrolled school-age populations. In summary, there is no analysis of the cost implications of the programs in terms of the practicability of their generalization, their effect upon related objectives, the possibility of choice among program options, the relative emphasis on program elements within the program to be supported, or the incremental benefits of the various component features.

The need for such cost analysis is great under conditions in which there is reason to expect that programs may be relatively high cost. The nature of the programs financed in all three countries was such as to suggest that such might be the case. The provision of facilities included shop, library, laboratory and special administration space; provision of shop and other equipment; large sites; special teacher training programs; higher qualifications for teachers; and development of new teaching and learning materials. Prima facie, higher unit costs would be expected unless there was some evidence of significantly improved efficiency in the individual schools. Incomplete data in the case of Colombia suggest that per-student costs have in fact been high in the multi-purpose schools. Cost analysis is also important, since schooling seems to be a high cost enterprise and there is some evidence that in general costs have a tendency to increase. In any case, where pilot efforts are undertaken, marginal costs should certainly be reckoned.

#### ANALYSIS OF EXTERNAL FACTORS

As discussed in Chapter 3, the validity of an education program designed to contribute to economic development may be highly dependent upon the structure of opportunities and incentives which are external to the

**education** sector. Similarly there may be external causes of internal problems. The AID analyses, however, did not examine whether the structure of policies, incentives, infrastructure, and other conditions external to the system of public education, especially in rural areas, was such as to permit the assumed relation of education to development (even if accepted as valid under ideal conditions) to operate under conditions which actually existed or whether companion programs were underway to change that structure. Similarly, as indicated above, except for passing mention of the fact that system problems might be caused by external factors, there was no analysis of whether and the extent to which system problems were caused by external factors.

The Panama assessment makes some attempt to appraise the possible implications of the financial requirements of the proposed education program on the overall economic and financial situation in the country. That appraisal is, however, far from a complete analysis. The later Colombia CAPs discuss the mounting inflation and other internal economic conditions. No attempt is made, however, to relate the sector programs and such conditions. **Generalizing,** it can be said that the assessments and other analyses do not address the question of the relation of the total sector programs to economic and financial conditions. There is no discussion of competing demands from other sectors, of the economic and financial implications of heavy dependence on foreign borrowing for support of the sector, of the possible inflationary implications of borrowing foreign exchange to finance large local costs, and of possible implications of all this for the governmental budgetary, tax, and internal debt structure. Conversely, there was no examination of the possible adverse implications of such factors for the size and nature of the program being carried on. The need for such analysis is especially great in conditions in which increasing percentages of the budget and GDP are being required for education and other sectors and in which the ability to raise taxes effectively is severely limited. It may also be important in circumstances in which sector expenditure as a percent

of GDP is already relatively high, as is the case in Panama (in which the Sector Assessment does recognize the possibility of a problem). It is especially important considering that there is, in fact, a general tendency towards increasing costs of education. <sup>1/</sup> Its importance is demonstrated practically by the experience in Colombia in which accelerating inflation and rising governmental costs resulted in the inability of Colombia to meet its commitments for investment in the sector and in its sharply cutting back the education program.

#### INDIVIDUAL ERRORS IN CONCEPT OR METHOD

There have been a few instances of what appear to us to be errors in analytical concepts or methods. In the first place, the conceptual and methodological problems in rate of return analysis in education and of the relation of education to income distribution are well documented in the literature and will not be repeated here. Suffice it to say, however, that we do not consider the bare citation of a study or two suggesting positive relationships to constitute "analysis" sufficient for program decisions. As previously stated or implied, we seriously doubt that any such analysis can be handled effectively within the context of sector assessment for individual countries.

In considering external benefits, private returns to the individual have been equated with public returns to society. This ignores the fact that public school education usually contains a considerable element of individual subsidy, which may be important if the tax structure is regressive and educational benefits tend to be higher for individuals in already higher income groups.

A further specific problem in this connection seems to have been involved in the AID analyses. It seems to have been assumed that if there are returns to investment in education, increased investment is justified and, in addition, investment in a particular educational program is justified. A similar

<sup>1/</sup> See; Swett, Francisco X., Formal and Non-Formal Education and Educational Development, Research Program in Economic Development, Woodrow Wilson School, Princeton University, Discussion Paper No. 53, February 1975, p. 7.

problem is involved in conclusions drawn from data showing higher earnings associated with more education. It may be true as Swett indicates that wage-earnings profiles of more educated individuals are invariably higher than those of less educated individuals and that the starting points of the profiles and the rate of growth of the profiles is higher for the educated than for the less educated.<sup>1/</sup> It does not follow, however, as seems to have been assumed in all the AID analyses, that changes in curriculum and other system reforms will increase the differential in favor of those receiving the new type education. Such associations may suggest that education per se is worthwhile for the individual, but obviously does not suggest that a change in the nature of his education is beneficial.

Similarly, there seems to have been a common tendency to confuse average and marginal costs and average and marginal benefits. Average benefits under the existing system are equated with marginal benefits to be expected from system changes. Also, the Panama analysis uses data associating educational levels with levels of salaries in non-agricultural employment as indicators of returns to education when agriculture represents a **large share of total employment and when the AID education program** is to be concentrated in rural areas. More generally, we share the position expressed in the Panama analysis that such comparisons are open to very considerable questioning. In any event, they seem to be useful only in order to indicate that in some generalized sense investment should be made in education. That, it seems to us, doesn't advance one very far from the starting point. It is not helpful in deciding how much to invest or what kind of education to invest in.

#### THE ANALYSIS PROCESS

Our examination raises certain questions as to the utility and cost effectiveness of the sector assessment and analysis process as it has operated in these cases. The Colombia Sector Analysis Paper was not prepared until some three years after the first loan was made. While expanded in coverage, it adds little to what had already been covered in the CAPs insofar as problem identification is concerned. Its updating has added nothing of significance. We see little relation between it and AID decisions. The first Summary Sector Analysis in Brazil did precede the first loan and its

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1/ See Swett, op. cit., pp. 19-26

preparation seems to have accompanied development of the first loan.

From a substantive standpoint, however, it added little to the identification of sector problems and basic AID strategy which was contained in the Country Assistance Program Document for 1968, dated September 1966. The four subsequent sector analysis documents made no substantive additions to the 1966 document. The program rationale and some analysis of it are contained in the CAPs rather than in the sector analysis documents. There was no AID sector assessment which served as a basis for the first Panama loan. Instead, it was based on an AID financed study prepared by a U.S. university for the Government of Panama. An enormous effort has gone into preparation of a sector assessment which was used as a basis for the proposed second loan to Panama. However, clearly insufficient time was allowed for its preparation with AID programming schedules dictating its completion date. It is our opinion that this sector assessment does not provide firm support for the proposed loan. It appears that in this instance, as in the case of the Brazil and Colombia programs, the assessment and loan development efforts were companion processes rather than part of a system in which the loans grow out of the analysis and are specifically conditioned by it. Thus, in one of the most recent cases as in the earliest, sector assessment materials are being used in a rather ineffective attempt to support and justify a proposed loan which is actually based on assumptions and conclusions which are not formally presented or analyzed.

Examination of AID files reveals that many of the problems of sector analysis were recognized and commented upon at various times by various members of the AID staff. The comments of the Sector Analysis Division of the Bureau have been particularly pertinent in this regard. Perceptive comments from individual staff members also appear in the files. Various studies by outside consultants also provide valuable insight and in some cases contain significant analysis over and above that contained in the formal AID documents. However, there does not seem to have been any institutionalized procedural mechanism by which such comment could be brought to bear on the nature of the analysis conducted or decisions made. In fact, it appears that AID/W considered its analytical role to be limited.

to raising questions about the USAID analysis, and that procedures were not such as to assure that questions and critiques got introduced into the mainstream of the analytical process and exercised an influence on the actual analysis performed.

It is clear that there is a need for more closely relating the sector analysis process to the AID programming and decision-making processes and for clarifying the analytical relations among the DAPs, the CAPs, and the Sector Assessments.

## Chapter 3

### PROGRAM PHILOSOPHY, ASSUMPTIONS AND STRATEGY

The education programs in Brazil, Colombia, and Panama and AID sector loan support to them are based on certain common theories and assumptions as to the role of education in society, the relation between education and economic development, and relationships between input and educational outputs.

#### ROLE OF EDUCATION

Programs supported by the sector loans in the three countries are all based on a common educational philosophy in which education is considered a major social policy instrument for accomplishing national goals. Under that philosophy education is seen as a means of facilitating economic development and bringing about significant social changes. It is held to be an important vehicle for: 1) providing trained manpower needed for economic development; 2) increasing the earning power of the recipient; 3) reducing inequities in income distribution; 4) improving the general social and cultural milieu; and 5) inculcating national values. Country policy and planning documents are filled with expressions of such views on the role of education.

Brazilian planning documents make it clear that the concern is with a system of public education related to the needs of a developing and technologically advancing society and the needs of the individual in that society. References are made to using education "to permit ... a

consolidation of the human capital of the country as a means of accelerating the process of economic development" and as an "instrument of social transformation in a democratic society." Its economic purpose is said to be to increase the number of persons involved in the process of development and to increase their productivity. Finally, it is said that education is to provide a means for social mobility, develop the ability of persons to adjust to new emerging realities, and inspire the idea of democracy and the principles of freedom of the individual.

Colombian planning documents refer to a Colombian recognition of the relation of education to development, social mobility, income distribution, and economic, social, and political integration and to efforts to: 1) use the education system as an instrument to create opportunities, redistribute income, and integrate marginal populations with economic, social, and political institutions; 2) use education policies as an effort to assist in social and economic development; and 3) coordinate the education system with employment policies.

Planning documents in Panama specifically relate education to the accomplishment of national economic and social goals. General goals are said to be to: 1) adapt education to development requirements, linking objectives and goals of the system to national development goals; 2) develop a creative and self-reliant Panamanian personality; 3) develop the educational system as a service of social usefulness, mobilizing all resources of the country and enjoying the participation of all; 4) establish and maintain an active orientation of education toward cultural development, democratization... ; and 5) establish education as an element in the infrastructure

of social transformation. Education is thus clearly considered to be an instrument of economic development and social integration.

It is clear from both the general tenor and tone of the discussion and from specific statements in AID loan and sector analysis documents that the AID Missions accepted and supported this philosophy of the role of education. Those documents particularly emphasize a direct role in the development process through the provision of training required to meet manpower needs. The following quotations from the CAP for the first loan in Panama provide examples:

There exists a potential for unprecedented economic growth for Panama in the decade of the seventies and beyond. However, to realize such a potential, the nation must structure its educational system, allocate its resources, and transfer knowledge, skills, and attitudes in such a manner that development proceeds fairly uniformly and rationally in all sectors. Manpower studies recently completed in Panama have shown that educational output is becoming more closely attuned to the labor market demand, and that earning power of Panamanians is directly correlated to educational attainments.

The Ministry of Education has the task of providing Panamanian youth with the education and training essential to making a maximum contribution to the economic and social development of their nation.

To maintain and augment its economic and social progress, Panama needs a labor force skilled in the professions, technologies, commerce, and services. The school system is the principal progenitor of such trained manpower.

#### BASIC ASSUMPTIONS

These views appear to be based on a group of assumptions that have heavily influenced the country and AID analysis. The more important of them are:

1. The public school system is or can be a major instrument for the accomplishment of a broad spectrum of national goals;
2. Education is related to economic development in a general sense through its influence on attitudes and motivations and the provision of a populace with an understanding of "modern" processes and a technological orientation required for a developing society and in a specific sense through the provision of a pool of skilled manpower required for economic growth;
3. The amount and quality of learning acquired are a function of (a) the subject matter coverage of curricula, (b) teaching methods, and (c) the nature of learning materials used and the extent of their use;
4. Student motivation is to a significant degree a function of the actual and perceived "relevance" of what is taught and relevance from the point of view of the individual consists of the usefulness of the education in an employment context, either in terms of self-employment or as a hired worker. For the point of view of society, it is the usefulness of what is learned to the production process;
5. Student drop-out, repeater, and failure rates are thus directly and to a significant extent related to the nature of the curriculum;
6. A curriculum which contains considerable work-related subject matter and emphasizes acquaintance with skills is more "relevant" to the individual and to national labor force needs than is a more "academic" curriculum;
7. The later grades of the primary cycle (above about grade 3) are from an educational point of view the appropriate point in the system to begin to introduce work-oriented curriculum;
8. "Modern" teaching methods based on current theories of communication and use of various types of teaching and learning materials will produce outputs (in terms of amounts learned and of the holding power of the schools) which are superior to those produced by "traditional" methods;
9. The amount and quality of educational output is to an important extent a function of the qualification of teachers as reflected by the extent of their training in teaching methods and the philosophy of the educational concepts being adopted; and

10. Inherent in all of this is a further underlying assumption that to be eligible for AID support, education must somehow be related to some concept of economic development.

#### PROGRAM OBJECTIVES AND CONTENT

In practice the programs involved several immediate objectives which were common to all the countries, paralleling the commonality of general philosophy as to the role of education. All involved objectives related to:

1. Accomplishment of fundamental system changes to make the education provided more "relevant" to national, economic, and social needs and to the needs of the recipient;
2. Improvement in the "quality" of the education provided;
3. Increased educational opportunity through system expansion;
4. Changes in the distribution of educational opportunity and benefits, and
5. Improvement in the internal efficiency of the system both in terms of better management and administration and increased student flow through the system and reduction of student losses.

While all programs contain elements of all these objectives there has been some variation in the emphasis placed on them. The objective of providing a "relevant" education underlay all programs and was probably fundamental in all three countries. Quality of education tended to become synonymous with "relevant" education and improved quality in this sense was an objective in all three countries. Improvement of quality through use of changed teaching methods and expanded use of teaching materials was also an objective.

Increased enrollment was an explicit objective of the Colombia program and the program supported by the first Panama loan. Both Brazilian loans and the proposed second Panama loan also provided for adding to system capacity through provision of additional classrooms. In these latter, however, this element of the programs does not seem to be so much related to increasing access to education as it does to permitting and stimulating changes in the

nature of the education provided. The CAP for the first Brazilian loan stated that it was not expected that enrollment under the program would increase more than would otherwise have been the case; that for the second loan did indicate some expectation of resulting increased enrollment. However, it is clear that the emphasis is much more heavily on system change and quality improvement than on expansion of opportunity. The CAP and the sector analysis for the second Panama loan both say that the problem of access to education has been pretty well solved. Provision of classroom facilities is thus apparently related to problems of improving quality and efficiency and the rural/urban distribution of access.

The Colombian program did have a stated objective of changing the pattern of distribution of educational opportunity as between the urban and rural areas. There is some uncertainty, however, as to the extent to which this objective found practical expression in actual program implementation, since, in practice, the objective of expanding system activity at all levels seems to have had more emphasis. The purpose supported by the first Brazilian loan was in part demonstrational and the CAP stated that as a result schools had to be put where they would be seen and have the greatest impact and that this meant urban areas. The USAID contends, however, that a large number of the schools do in fact serve non-urban areas. The program supported by the second loan is more general in application and may be more related to a distributional objective than was the first. That objective is not, however, being heavily emphasized, as compared with system change. The first Panamanian loan was more concerned with overall expansion of enrollment than with the distribution of enrollment. The proposed second loan makes improvement in the distribution of educational benefits a specific objective.

An increase in the flow of resources into education was established as an objective in the Colombian and the first Brazil loans. Specific targets for education expenditures as a percentage of the total government budget

and as a percentage of GNP were set up as objectives in the Colombian project. Budget targets for the states in which programs were being financed were also set up in the first Brazilian loan. No such objectives are set up in the second Brazilian or in the Panamanian loans.

There were also many similarities in the nature of the programs adopted and in the activities which were carried on in support of these objectives. First, programs in all three countries involved, either originally or as they progressed, a change in the structure of the system below the university level. With some minor differences in detail and terminology, this change involved the substitution of a two level system consisting of "basic education" and "secondary education" for a three level system of primary and two levels of secondary education. Basic education consists of the previous primary level plus two or three additional grades and the second level consists of three or four more years of secondary education. This change was designed to improve "articulation" in the system, make possible a more integrated educational content at lower levels, and provide a more complete education in the first level.

Next, programs in all three countries place heavy emphasis on changes in curriculum. All provide for changing the curriculum from an "academic" to a "diversified" education in which heavy emphasis is on a vocational or a work-oriented content. Programs provide for the introduction of vocational and skill acquaintance or training components at all levels and inclusion of academic and vocational tracks at higher levels.

Construction of primary and secondary schools and other facilities and supply of equipment for all of them have been the largest single element in the loan programs in all three countries. In the case of the program supported by the first Panama loan such construction was related to meeting the demand for increased access to education. In the case of Colombia the construction financed by AID was also related largely to increased enrollment objectives. However, an important element in the total Colombian program was the construction of multi-purpose schools (INEMs) assisted by the IBRD. AID-financed construction in the Brazil loans is for similar multi-purpose schools, ginasios polyvalentes or "ginasios oriented toward work." Con-

struction of these types of schools is primarily related to the curriculum reform objective and the conceived role of education as a provider of needed skills and a vocational orientation rather than to an increased enrollment objective. The design of the buildings and the inclusion of space for shops, laboratories, libraries, etc. is intended to permit the effective use of vocational courses in the curriculum and the use of "modern" teaching methods. Such schools are also intended to serve as demonstrations which will stimulate imitation and thus to serve as a "leaven in the lump." Model schools are considered, especially in the Brazilian program, to be the principal means of accomplishing educational "reform" objectives. While statements with respect to construction under the proposed second Panama loan are not explicit on the question, it seems to be more related to "reform" objectives and to redressing the balance between rural and urban areas than to assisting in accomplishing an overall increase in enrollment.

Training of teachers and other educational personnel is also an element in all the programs. In Colombia general training programs and programs for training in the INEM philosophy and methods have been included. In Brazil and Panama the emphasis is on training in the philosophy and methods involved in the reform program, especially in vocational subject matter and teaching methods.

Improvement of planning, management, and administration is heavily emphasized in statements of objectives of the programs in all these countries. Similarly, improvement in system flow-through by reducing drop-out, repetition, and failure rates is an important objective in all three country programs.

All AID documents also heavily emphasize the need for improved planning and administration as elements in the program. In fact, in the case of Colombia and Brazil, the bringing about of such improvements is set up as a major purpose of the loans. The structure of loan implementation in Brazil is specifically related to the necessity for bringing about improved educational planning. Programs in all three countries include provisions for changes in organization, and for assistance in improving sector adminis-

tration and management. The amount of AID funds provided in support of such programs is, however, quite small in relation to the importance assigned to it in the AID documents. In the case of Brazil the Ministry of Education and Culture provided funds for administrative reform in the states.

Establishment and strengthening of vocational schools also seems to be an important element in the country programs although it is only in the Panama program that AID is providing direct support. Assistance to such schools in the other countries is, however, being provided by the IDB and the IBRD.

All three country programs also contain a component involving the establishment of rural educational centers designed to serve as nuclei for providing vocational curriculum elements to associated schools too small to include such elements, and also to offer consolidated educational, health, and agricultural services. However, AID financing has not been directly associated with such centers (AID officers do not appear to have been much involved with them) and they do not seem to have made much progress in getting off the ground.

#### ROLE OF EDUCATION AND ITS RELATION TO ECONOMIC DEVELOPMENT

The conception of public school education as a major social policy instrument for the accomplishment of national goals upon which the programs in the three countries are based raises three basic types of questions:

1. Whether experience has demonstrated that the school can effectively bear the burden of serving as the instrument for bringing about a broad range of large-scale social changes ranging from inculcation of national values through inducing changes in individual and group motivations, to serving as the handmaiden for economic development and social and political participation;
2. Whether public education, in fact, makes its effective contribution to economic development through provision of a vocationally trained labor force, and if a contribution is made through augmentation of the supply of skilled labor, at what point in the system structure vocational training should be introduced; and

3. Whether the conception of "development" which is implicit in the conceived relation of education to development (which is expressed in the programs and the analysis of them) is appropriate or whether it is in fact necessary to relate public school education to any particular concept or theory of development.

Clearly an attempt to incorporate into a school system programs designed to make specific contributions to economic growth; income distribution; social mobility; economic, social, and political integration; equalization of opportunity; vocational capability; and changes in individual and group values and motivations, all in addition to traditional contributions to individual learning, places an enormous burden on an educational system. Current moves to expand into consideration of contributions to health, family planning, productivity, etc., can only increase that burden. This may all be an especially heavy burden to bear under the conditions of internal and external inefficiencies identified in the case of the three countries and which are almost certainly typical of education systems in other countries. Prima facie it would not seem unreasonable to question the ability of underdeveloped, inefficient, financially straitened systems to support it. The following quotation may also be pertinent in connection with consideration of such a perceived role:

There is, perhaps, a general tendency to accord to the schools a "central" position in strategies designed to facilitate economic development. To some extent this reflects an appreciation of the relative lack of alternative institutions which can be utilized, but it stems partially from the notion that schools are particularly manipulable institutions. It is widely believed that schools can be readily modified to meet new economic needs, and more particularly, to accord with the intentions of social and economic planners. I shall argue, on the contrary, that schools are remarkable clumsy instruments for inducing large-scale changes in underdeveloped areas.<sup>1</sup>

The team is not able to make a definitive professional judgment on so complex a question. However, we are of the opinion that in examining possible future programs, the question of whether AID assistance should be provided

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1. See: Foster, Phillip J., "The Vocational School Fallacy in Development Planning" in Anderson, C.A. and Bowman, M.J. (eds), Education and Economic Development, 1975.

to support such broadly conceived and multiple roles for education, or should be provided to support more limited roles, should be examined closely by persons with requisite experience and relevant professional background. Consideration should also be given to the practical question of the feasibility of programs which cut across established organizational, bureaucratic, and professional lines.

There are several schools of thought concerning the role of education in economic development, and of the way in which that role should be played. It is clear from internal agency guidance,<sup>1</sup> explicit statements in country program documents for the three countries, and the implications of the programs and the nature of the analysis made that AID has opted for that which holds that the major developmental role of education is to provide the skilled labor of the kinds, in the amounts, and at the times required by development needs and that the introduction of a curriculum which emphasizes work-oriented vocational and skill training into all levels of the structure of public education is the best way for that role to be performed.

The basis for adoption of that fundamental concept is, however, nowhere made clear and we have been unable to find any exposition of the process by which it was arrived at. There is no statement of the basis for acceptance of the general view that education is a significant contributory factor in development. Our limited review of the literature on the subject suggests that research and conclusions and informed opinions are mixed and generally inconclusive on the subject.

Rogers, in his review of the literature,<sup>2</sup> concludes that growth and education have been associated although no one has been able to isolate the contribution. He says that education may have been a key contributor, but that even when an association is established, one is still faced with

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1. See, for example, The AID Education Program Strategy, September, 1973
  2. Rogers, Daniel, "Purposes and Assumptions of Education Sector Loans" unpublished paper, Education and Human Resources Division, Bureau for Latin America, AID, Jan. 1972

the chicken and the egg problem. Similar conclusions are reached by Swett.<sup>1</sup>

Correa<sup>2</sup> concludes from an examination of sources of growth in Latin America that "the percentage contribution of education (to economic growth) tends to be low in Latin American countries.... However, in most of the other Latin American countries (other than Argentina) the contribution does not reach the 5% level." He also concludes that the contribution of education increases with the level of development. He points out "an extremely surprising result," namely that "the contribution of education to development shows a highly significant negative correlation with the rate of growth of income," and points out that this result is in agreement with results found in the case of Greece by Bowles and by Carnoy in Latin America who stated that "rapid investment in education is not a sufficient condition for economic growth."

There is also no examination in AID documents of the proposition that formal, public school education, especially at the earlier levels, (which may make a contribution to the supply of trained manpower by an emphasis on general education with a bias toward general science and verbal skills) may be the best option. The possibility does not seem to have been considered that the lack of literacy, language ability, computational capability, and general background may be where the problem lies and that the appropriate role for the public school may be that of imparting the ability to absorb and utilize vocational training when needed. The following statement from the Panama Education Sector Assessment may be significant in this context:

The most promising avenue open to Panamanian education from the standpoint of its economic development goals may not be the production of more graduates under traditional labels in response to "rate of return" or "needs" computations, but rather the general upgrading of cohorts in terms of their ability to respond effectively to rapidly shifting conditions in the context of occupations and in opportunities for employment.

There are legitimate questions as to what type of education best accomplishes such a general upgrading and best provides for flexibility in ability to respond to change.

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1. See Swett, op. cit., p. 29

2. Correa, Hector, Sources of Growth in Latin America, " The Southern Economic Journal, Vol. XXXVII, No. 1, July 1970.

The following quotation from A Perspective of Employment and Occupations<sup>1</sup>  
in Paraguay, 1950-1984 is also pertinent on this point:

Experience in other countries has demonstrated that there is an important distinction between the two systems (the education system and the training system) which is basic to the capability for change and flexibility which technology demands. It is to make the general education system, from primary through university, responsible for general education only, and not for training in specific occupational fields, while the training system is made responsible for specific occupational fields, but not for general education.

Similarly, it seems to us that the validity of any approach adopted requires the existence of certain conditions external to the education sector. It seems fundamental that a society must be so structured as to offer the needed opportunities and provide the needed incentives if vocationally oriented education is to accomplish the perceived purpose. For example, increased agricultural output, and resulting increased agricultural employment and relevance of agriculturally oriented education, require the existence of a meaningful structure of incentives for the individual farmer to improve his technique, extend his activities, and increase his production.<sup>2</sup> It is, however, precisely the absence of such a structure which may be most characteristic of "underdevelopedness." It may also be a fact that there is not a technologically oriented structure of job opportunities, especially in rural areas.

The comments of Sheffield<sup>3</sup> seem pertinent in this regard:

It is absurd to blame schools for the fact that most young people in Africa prefer urban white collar employment to vocational occupation with lower status and pay, or to non-formal traditional agriculture. But it would be more absurd to expect changes in the curriculum to change these attitudes until the entire incentive structure of society is also changed so that agriculture and vocational careers become viable alternatives to the white collar route.

There is also a related question of whether the major problem is in fact a "real" need for education or the existence of a structure of

1. Joint Report, USAID Paraguay and Ministry of Justice and Labor, April 1975
2. See Foster, op. cit., for a fuller discussion of this general point.
3. Sheffield, James R., The Greening of Schooling: Reflections on Non-Formal Education, Teachers College, Columbia University, p. 11.

artificially high educational standards for employment -- as is suggested as a possibility in the Panama Assessment.

The point of all the above is not to say that the AID conception of the role of education is wrong or that there isn't opinion which supports it. It is only to suggest that it may not be the best approach, that the public school system may not be the best place to provide vocationally oriented education, and that these propositions should be accepted as possibilities which should be explored.

#### EDUCATION AND AID'S NEW DIRECTIONS

While improved income distribution and equalization of opportunity have been given some consideration as objectives of the programs, it still remains evident that the view of the relation between education and economic development involves the further conception that economic development consists of overall national economic growth in terms of macro-economic output. Current international assistance doctrine, AID policy and strategy, and especially the "Congressional Mandate" deemphasize interest in that conception and emphasize instead consideration of "equity," distribution of benefits, and effects upon "target groups." It thus appears to us that while in the case of the Brazil and Colombia programs, the approaches were consistent with thinking existing at the time of their adoption, the conception on which the programs were based is probably not consistent with current thinking. This divergence suggests that sector definitions, program content, and the focus of current analysis should be shifted from the models provided by the Brazil, Colombia, and Panama sector loans.

Current AID thinking as reflected in statements concerning the "Congressional Mandate," program guidance documents, and draft guidelines relative to education

and human resources development seem to be evolving in the direction of relating education "to the development needs of the poor majority" and to the development of "human resources." Greater emphasis than previously is given to the provision of a broad spectrum of benefits to that majority. However, there still remains a heavy emphasis on "development needs" and "human resources" development.

For example, the paper, The Congressional Mandate: Aiding the Poor Majority, April 1975, defines "minimum practical education" as "that body of knowledge, attitudes, and skills necessary to effectively contribute to and participate in a developing society and economy," and says that "programs most likely to succeed and which receive highest priority emphasis under the Congressional Mandate and AID policy, are those involving the active and effective participation of the poor in all facets of the development process."

This all clearly implies an objective over and beyond that of improving the well-being of target groups. The very term "human resources development" implies that people are to be "developed" as resources which can be invested in or dedicated to some goal which transcends their own welfare. Their "development" is thus a means to some further end. Under such circumstances, the previous concerns with the relation between education and overall economic development seem inevitably brought back into the conceptual framework. That framework, then, becomes broadened to include all external constraints on education's ability to contribute to target group welfare and national development.

This all raises a quite basic question, the examination of which is far beyond the scope of this evaluation but one we feel impelled to at least raise; that is, whether such an approach is, in fact, consistent with the Mandate. Whether there really is any necessity to attempt to develop any specific rationale at all for a direct relation between public school education and economic development, however understood, seems open to question. It is quite certain that the Mandate is based on the assumption that education, however defined, provides benefits to recipients. It may

also be based on an assumption that it contributes to development in some general sense. Under such circumstances, may it not be that the question of the role of education should be approached in terms of determining: (1) who it is desired to help, i.e., what the target group is; (2) what the benefits desired are; and (3) what role various types of education can play in providing such benefits? It may even be that in some cases the educational benefits need not be more than those associated with development of "traditional" capabilities to perceive, understand, analyze, and communicate. Whatever those benefits may be, however, such an approach would make it unnecessary to try to relate education in general or particular types of education to any overall conception of the nature of development or to any theory as to the process by which such development takes place.

#### EDUCATIONAL PRACTICE AND RELATIONS BETWEEN INPUTS AND EDUCATIONAL OUTPUTS

The fields of educational practice and relations between inputs and educational outputs are areas in which most team members have had little experience, nor has the time associated with this report permitted fully appropriate analysis. Nevertheless, we feel compelled to make observations, because the issue lies at the heart of AID work in education in those nations.

With respect to the general proposition that educational outputs in the form of learning acquired are positively related to particular educational inputs, our understanding is that data and research results are conflicting and that professional opinion differs. For example, Simmons concludes from a review of the literature that research has not identified a variant of the existing system that is consistently related to students' educational outcome. He also concludes that research, which admittedly is deficient, suggests that there is no significant variation in outcomes attached to teaching variables and instructional methods.<sup>1</sup> Zymelman also found that there is "no conclusive evidence of the superiority of one type of school or of non-formal vocational training" and that findings are not clear on the relative effectiveness of alternative instructional media.<sup>2</sup>

1. Simmons, John, "How Effective is Schooling in Promoting Learning? A Review of Research," IBRD Staff Working Paper, 1974.
2. As quoted by Swett, *op. cit.*, p. 40

Other researchers have, however, concluded that school variables are important in explaining variance in learning outcomes.<sup>1</sup> The nature of such research results suggests the need for critical examination by AID of assumptions of positive outputs from curriculum changes.

The assumption that high qualifications for teachers are required for improved educational output in particular needs reexamination not only on the basis of general theory and research results but also on the basis of AID experience. AID has itself financed a number of programs which suggest that in some circumstances quite acceptable results may be obtained with the use of teachers whose formal qualifications are considerably less than those associated with commonly used qualification standards. Programs such as those operating using IVS (International Volunteer Service) volunteers and the reportedly highly successful program of Teachers for East Africa are cases in point. The experience of the Peace Corps may also be pertinent in this connection.

Questions may also be raised as to the validity of other assumptions about relationships between inputs and results. For example, it does not seem to be indisputably established that relevance from the point of view of the student, his parents, and the community consists in the ability to directly relate what is taught or learned to some structure of potential employment opportunities. In the first place, it may not in fact be possible for people to have any meaningful perception of a structure of practicable employment opportunities. It may be that they can perceive that, as pointed out above in connection with the discussion of the relation of education and economic development, society must be so structured as to offer the needed opportunities, and that this structure in their environment bears little relation to education. The subject matter coverage of the curriculum and teaching methods may thus have little to do with perceptions of relevance and thus to drop-out and repeater rates. It may also be that the question of relevance is more related to the material which is included within a particular subject area rather than to the area itself, that is, it may be that the failure to deal with a subject in terms of

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. Ibid, pp. 28-29

material within the scope of a student's experience is what makes it "irrelevant" rather than the fact that the subject itself is "academic."

Finally, facts with respect to enrollment raise questions as to the validity of the assumption that existing curriculum and teaching methods are at the root of high dropout rates. In the first place, it is quite clear that demand for the existing type education considerably exceeds the supply. Strong social demand for increased enrollment in the existing system and the existence of the large unenrolled populations is or has been a significant fact of life in all three countries. This demand is so strong as to suggest either that enrollment is not a function of considerations of relevance or that the education which has been provided is considered sufficiently relevant to existing objectives of parents and students to permit them to demand the existing education. In the second place, the very large number of overage children in the system is a startling characteristic and a significant problem in all three countries, with large numbers staying in school until as late as their twenties. For example, in Brazil the number of secondary school age children enrolled in primary schools exceeds total secondary school enrollment by three or four times. It appears to us highly doubtful that so many students would persist in school for so long under circumstances in which the education was found to be so lacking in relevance to them as to be a major cause of very high dropout rates. This problem deserves much more careful analysis.

#### EDUCATION AND INCOME DISTRIBUTION

The question of the relation between education system inputs and external outputs has been covered above in the discussion of assumed relationships between education and economic development and of the role of education. In one other area, namely, the relation between education and income distribution, discussion in the AID documents is ambivalent and it is not quite clear what the assumption or position is. The sector analysis documents tend to deal with the question in terms of data showing an association between increased educational levels and higher earnings and seem to imply from this a positive relation to income distribution.

However, when dealing with specific conclusions, they tend to become uncertain (as in the case of the Colombian document) or to suggest the lack of a positive relationship (as in the case of the Panama Assessment). The CAPs, on the other hand, using the same or similar data, quite clearly come down on the side of a positive relationship. Analytically they seem to conclude that the nature of the relationship is doubtful, but from an operational, decision-making point of view, assert a positive relationship. Our impression is that the preponderance of the evidence seems to be against such a general conclusion.<sup>1</sup> Jallade did find some fairly dramatic shifts in Colombia and generally concluded that in the aggregate, public expenditures on education in Colombia have had the effect of distributing income from the rich to the poorer classes and that most of this effect comes from financing primary education.<sup>2</sup> As Harbison points out, however, while the study deserves high praise as a pioneering effort, it would be dangerous to generalize the conclusion. The problem, of course, lies in estimating benefits. Consequently, one finds evidence on both sides. Some studies support investing in education to make income distribution more equitable while others do not. Clearly all the evidence is not in. We conclude that further research is needed before the effect of formal public education on income distribution can be used as a basis for support of education sector programs.

1. See, for example: Education Sector Assessment for Panama, page 89, and Harbison, Frederick, The Education-Income Connection, prepared for the Brookings-Princeton Income Distribution Study, November 1974.
2. Jallade, Jean Pierre, Public Expenditures on Education and Income Distribution in Colombia, IBRD, April 1973.

## CHAPTER 4

### METHODS OF IMPLEMENTATION AND EVALUATION

Methods of loan implementation varied from country to country with variations dependent in part on the purposes of the loans and the approach in support of the sector; that is, whether the loans were considered to be in general support of all activities in the sector or to be in support of specifically identified activities.

In the case of Brazil a comprehensive system was established for administration and implementation of the programs supported by the loans. The major features of that system were:

1. Assignment of basic responsibility for implementation by the GOB;
2. A formal agreement between the Ministry of Education and Culture (MEC) and each participating state relating to (a) objectives of the program in the state; (b) respective responsibilities of the MEC (PREMEM) and the state for funding and administering the program; (c) undertakings by the state to study and adapt the construction, staffing, and curriculum elements of its educational system to the multi-purpose (polivalente) school concept; (d) state commitments with respect to increases in educational expenditure and salaries to be paid teachers; and (e) basic procedures for release of funds;
3. A requirement for review and approval by the MEC of state educational plans and plans for implementation as a condition for release of funds;
4. Establishment by the MEC of criteria and standards for program and project implementation by the states;
5. AID release of funds in tranches related to each investment program, e.g., construction, and to each project in the national program, each of which releases was covered by a formal AID/PREMEM Tranche Release Agreement which described the specific activities to be funded, established a disbursement schedule for each investment program;

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#### 1. Brazilian Commission for Educational Administration

6. Inclusion in the Loan Agreement of conditions precedent to disbursement relating to the system of implementation to be used; the establishment of necessary implementing organizations, and planning and programmatic progress necessary for disbursement of loan funds;
7. The establishment of a special organization (The PREMEM Commission for Administration) within the MEC but outside its regular bureaucratic structure to be responsible for program execution and the establishment of a similar organization in each state;
8. Provision of AID funds for administrative support and technical assistance in planning and administration of the program;
9. The use by the GOB of a consulting engineer for preparation of construction specifications and oversight of the school construction aspects of the program;
10. The installation of formal system of reporting and project monitoring used by PREMEM and AID;
11. AID participation in the process of establishing implementation requirements and methods; review and approval of administrative arrangements, including organization, assignment of responsibility, procedures, and criteria for decision-making; monitoring of programs through analysis of reports and site visits; and participation with MEC/PREMEM in the identification and resolution of problems through a system of regular meetings for review of progress; and
12. The establishment of an AID project committee for monitoring the programs and for relations with MEC/PREMEM.

The USAID involved itself in a regular and systematic way on a cooperative basis with the GOB in following the progress of loan supported activities and in the identification and resolution of problems as they arose. The system of state reporting to the GOB administering agency and the USAID was well designed to show progress against targets and to identify problems impeding progress. Activities associated with construction of schools were closely supervised.

Although the degree of AID involvement in supervision of construction may have exceeded that usually undertaken for an AID financed capital project, this system in fact made possible considerable decentralization

of responsibility for conduct of implementing activity. Under it AID had no responsibility for conduct of program activities, but was responsible for seeing that an effective system was established and operated. Each state rather than the national government was responsible for executing its program subject to policy requirements, standards, and criteria established by the national government and with assistance provided by it.

The methods selected were well designed in relation to the type of program and to the several parties involved in the programs. The system provided for: (a) decentralized responsibility under the guidance and policy control of, and with technical assistance from, a specifically designated federal-level agency with responsibilities only for the loan supported program; (b) use of formal agreements in which the roles, functions and responsibilities of each of the parties are defined; (c) periodic release of funds for specifically identified activities and in accordance with definite standards and requirements; (d) use of formal agreements covering the conditions for release of funds for each program component; and (e) application of a system of progress reporting and joint review. It may offer potential for use elsewhere with suitable modifications to meet different circumstances.

The evaluation system in Brazil was also well designed to permit appraisal of accomplishment of activity level targets and first order program purposes. There is a need, however, to expand it in such a way as to permit appraisal of the effectiveness of the strategy and of resolution of overall problems (internal system efficiency, quantitative demand, and quality and relevance) and to permit assessment of the validity of the overall educational objective (viz. the appropriateness and feasibility of the chosen role of education and of the nature of the education to be provided).

Problems encountered in implementing the program supported by Loan I have included difficulties in selecting contractors and in contracting for construction services, deficiencies in contractor performance, inadequate

technical investigation of sites and selection of inappropriate sites, inadequate contractor supervision by the country, and similar problems. These problems, while significant and troublesome, seem to us to be in general of the same kind and magnitude that one would expect in programs as large and complex as that being carried on, and especially when improvement of methods of administration is one objective of the program.

In the case of Colombia, differing understandings and positions as to the way the sector loans were to be implemented plagued the loans from the beginning. While loan papers suggest that disbursements would be made only after specific justification of funding requirements and review of program activities and that regular progress reports would be received and reviewed, in practice only the very minimum of financial information was required in support of disbursements.

Voluminous reports of status of funds and estimates of needs for funds were submitted from time to time. Annual reports of program activity were also submitted. They were not, however, specifically related to program objectives and loan agreement provisions. We find little evidence in the files and from discussions with AID personnel that precise tracking of program accomplishment was a significant factor in either approval of disbursements or in the general monitoring/work efforts of AID staff.

Since the Colombia AID loans were in fact annual support to the entire public education sector, the GOC had complete responsibility for implementation of all activities carried on. No special organizational arrangements were set up for administration of the program and activities were carried on through the recently reorganized GOC structure. According to USAID personnel, this general approach was based on the conclusion that, by and large, the Colombian program was a good one, the GOC had the ability to administer it effectively, and the primary restraint on progress in the sector was a lack of financial resources. Under such circumstances the implementation problem was considered to be primarily one of seeing that resources were made available and spent as needed.

To effect such an approach earlier loans provided for release of dollars for commodity imports without regard to sector considerations except for dollars directly related to program related commodities and participant training. Under later loans dollars were used to buy local currency required for support of the education program. Under early loans pesos generated in these ways were deposited in a special account in the Treasury where they became commingled with other GOC funds and lost their identity. Later, pesos generated by the loans were held in a special account from which they were released to education sector agencies. Upon release they became commingled with Colombian agency funds and lost their identify by that means. Under this approach loan agreements contained provisions establishing the amount of funds which would be provided to the various agencies by the GOC and AID, respectively. The amounts of the total commingled funds to be used for designated activities were expressed in fairly general terms and included a large "all other" category.

AID requirements as to GOC program performance were set up as conditions precedent to AID loan disbursements or as covenants in the loan agreements signed by the GOC. These conditions and covenants related to such things as (a) presentation of evidence of "satisfactory efforts...to advance the educational development of Colombia so as to be able to accomplish the Development program set forth in the Borrower-IBRD Memorandum;" (b) preparation of a five year plan for primary and secondary education; (c) the reaching of a specified relation between the education budget and GNP and the reaching of specified targets as to levels of educational expenditure; and (d) the giving of "best efforts" to getting specified legislation passed, including legislation relative to the teaching profession and commitments with respect to establishment of particular organizations and undertaking certain research efforts. The Borrower-IBRD Memorandum referred to commitments with respect to establishment of an experimental program to test the

applicability of the curricular program and administrative innovations to be introduced into the new multipurpose secondary schools (INEMs) to other existing but reorganized secondary schools, preparation of plans for conduct of studies of higher education, and submission to the Colombian Congress of tax reform legislation making adequate provisions for the financing by departments and municipalities of the five-year educational plan. Progress against these commitments became a condition precedent for AID loan disbursements.

Loan agreements also required progress reporting by the borrower. As finally agreed upon, such reporting consisted of an annual report of activities in the sector unrelated to specific loan agreement commitments. Requests for disbursement were submitted on an "as needed" basis with information submitted in terms of financial allocations without specified relation to program activities or accomplishment. Requirements were established for submitting information to permit determinations as to the meeting of conditions precedent to disbursement. The evidence indicates, however, that such requirements were not enforced and there appears to have been little examination to determine whether and how such conditions had been met.

Areas of AID implementation activity consisted of (a) obtaining compliance with AID procurement regulations in the expenditure of dollars used for imports and the resolution of individual procurement problems; (b) justifying and authorizing the extension of deadlines for meeting conditions precedent to disbursement, opening letters of commitment, and making disbursements; and (c) expediting loan and GOC expenditures. This last item apparently received heavy emphasis with a great deal of AID professional

staff time being spent in learning GOC disbursement procedures and serving as expeditors of the flow of GOC funds through the system to educational agencies both in order to get GOC bills paid and to assure GOC disbursements at levels which would permit disbursement of AID funds.

No examination of methods of implementing the first Panama loan was made by the present evaluation team. It appears from the CAP, however, that, as in Brazil, the extent of direct AID involvement in supervision of construction activities may have exceeded that usually exercised in the case of capital projects.

The earlier team which examined experiences under the first loan attributed delays in construction and in equipment procurement to use of AID procedures that were possibly inappropriate to a sector loan approach.

Chapter 5  
PROGRAM ACHIEVEMENTS.

ACCOMPLISHMENT OF GOALS AND PURPOSES

Basic program goals such as contributing to economic development, and even contributing to the well-being of recipients of the education are quite long run in nature. Since graduates are just beginning to come out of the new type schools, considerably more time would be required before any appraisal of possible effects upon the position and situation of students and of the nature and extent of any influence upon development could be made, if indeed it is possible at all to make a meaningful appraisal of the latter. In any event, however, no arrangements have been made to obtain base line data to conduct longitudinal and other types of studies necessary to the examination of such questions. Similarly, it appears that only in Brazil is consideration being given to establishing a testing program designed to permit some appraisal of educational outcomes.

The overall picture we have gained through the course of the evaluation studies is that all three countries were engaged in a process of modernizing, reforming, and expanding their educational policies and systems. AID entered into a variety of relationships with this process, interacting with host country education planners and administrators, both influenced by a variety of current ideas on the world scene. A basic theme of each of the country programs was the improvement of the quality and effectiveness of their education systems. Yet in practice, it appears that the pressure for quantitative expansion was also very strong and may have outdistanced the struggle for qualitative betterment. In this perspective, AID's aim to support the struggle for quality was a sensible basic approach.

Just how much impact on the larger trend of events AID programs may have had, or will have, is very difficult to judge. To detail it would require a scale of effort beyond that of this study. Those who worked on the programs report numerous instances of successes in moving things forward, and numerous unsolved problems. The fact that AID entered into joint efforts with the host country officials to strengthen their modernization policies may have had, at numerous points, beneficial impacts that can never be traced, but which may have been crucial in starting and increasing the momentum of the countries' efforts to solve, and equip themselves to solve, their education problems.

#### INTERNAL EFFICIENCY

The first cycles of students going through some of the new type schools have been completed only recently, or are in mid-course or just beginning. There has also not yet been time for the institution of curriculum reform generally. In addition, except in some cases in which data on drop-out rates are being accumulated, no system has been instituted to provide a basis for appraisal of program efforts upon drop-out, repeater, and failure rates or upon other elements of internal system efficiency.

Such extremely fragmentary data as are available concerning the Colombia program suggests that the drop-out rates remain quite high in the new type multipurpose schools, but may be improving in the primary level. Data in the case of Brazil is unclear as to its implications, and perhaps somewhat conflicting, but in any event is not adequate to permit meaningful conclusions.

#### PLANNING MANAGEMENT AND ADMINISTRATION

In Brazil, ten states have prepared plans which can serve as a basis for the conduct of programs of considerable size and complexity. Our very superficial examination of those plans convinces us that they do set forth clearly articulated and reasonably specific goals for rather

radical changes in their systems of fundamental and secondary education. Their similarity and their relationship to national standards and criteria laid down for the overall program are clear evidence of the influence of the national policy making and implementing organization. Their program components also seem to be reasonably related to program objectives and to each other.

The preparation of such plans and their review and the establishment of mechanisms for their preparation and review is evidence of important development of planning capacity. The establishment of the necessary organization, the preparation of detailed implementation plans, and the construction, staffing and bringing into operation of over 200 new type schools, as well as the training of some 13,000 teachers and other personnel in new methods and philosophies in a period of five (or even seven) years is also an impressive accomplishment which suggests that considerable administrative and implementation capability has been developed.

There is, however, no base line information which would permit a before and after comparison of planning and administrative capabilities of national and state agencies participating in the program. Neither is information available which would permit a comparison of any change in capabilities between participating and non-participating states. Any conclusion as to results in this areas have to be based on the opinions of observers. It is the unanimous opinion of USAID and GOB personnel interviewed that the program has resulted in substantial improvements in program planning and implementation capabilities at both the national and state levels and that the AID loans were a necessary condition to bring about that improvement.

It is not clear, however, that these improvements have yet been, or will become, sufficiently institutionalized into the governmental structure to provide for a permanently enhanced capability. The national implementing organization was established as a special organization (PREMEM) outside the regular MEC organizational structure. Whether its capabilities will endure when its program implementation function is transferred to regular ministry organization (as we understand is planned) is a question. Similarly, PREMEM commissions were established in each participating state with specific responsibilities for overseeing program implementation. While there seems to be a tendency for personnel of such commissions to become employed by State Secretariats of Education, it is also not clear how well the needed implementing capabilities have been or will be institutionalized in the structure of the states.

In Colombia, the conditions under which this evaluation was conducted did not permit us to make an examination which would permit valid judgments on the effects of the program on sector management and administrative capabilities, and documentary information is very sparse. CAPs state that improvements in planning, coordination, and administration are 'implicit in program accomplishments.' They also say that a "strengthening" of the planning function and capacities of the Ministry of Education and related Institutes, and the Human Resources Division of the National Planning Department has occurred and that the GOC has "refined" its investment budgeting process and controls to insure that agencies work within established policy. Evidence cited includes a better budget review and approval process at the higher education level, improved "quality controls" in university administration, adoption of planning and evaluation criteria, the putting

into effect in fifteen departments of a technical assistance plan, improved monitoring of funds, improved coordination among educational levels, more prompt payment of teachers (which had been a major problem), and better teacher selection procedures.

We would conclude that budgetary procedures have probably improved somewhat and that the Institutes, from experience at least, now operate somewhat more effectively. However, there was no formally defined program designed to correct specifically identified deficiencies and only a very small amount of funds was provided for improvement of management and administration, and large proportions of those provided went for equipment. We come away with a distinct impression that programs and resources directed to this objective were not adequate to deal effectively with it.

In Panama, as the earlier evaluation team points out, only \$352,000 of loan funds over a three-year period was provided for improved sector management under the first loan. The CAP concentrated its attention on long-term general goals of improved management but did not identify operational goals for such improvement. The team concluded that it was too early for a definitive evaluation of improvement, but that some progress has been made in decentralization. The group which prepared the Education Sector Assessment reports that significant progress has been made in decentralizing administrative services. Neither team, however, indicates how decentralization has improved management and administration and what role the loan played in bringing about decentralization.

## PERFORMANCE AGAINST TARGETS

In Brazil the CAPs and the various sector analysis documents make reference to "quantitative objectives" and refer to increasing enrollments and the need to reduce drop-out and repeater rates. They establish no specific objectives with respect to them, however. Various programs in the GOB plan do establish objectives for enrollment and literacy, especially under "Operation School" under which the second loan is related.

Comparative information on progress toward these objectives is not kept by the USAID, and we are unable to reach significant conclusions with respect to them. Data provided us show enrollment in public ginasios in the four states participating in the first loan program amounting to 414,138 in 1970. Since the construction program provided about 160,000 new spaces, it provided for accommodating an enrollment increase of about 40% in the states affected. These same data show an increase in all public ginasio enrollment from 1970 to 1973 of 235,000 to 240,000. Enrollment in ginasios polivalentes in 1973 is shown as 58,282, or about 27% of the increased enrollment. Data on total public secondary school enrollment available to us vary considerably. The addition of 160,000 new spaces under the first loan would be 4% - 6% of enrollment depending on the enrollment figures used. The percentage to be added under the second loan would be less. Any assessment of the effect of the program on enrollment would also have to take into account the relative cost per student under the loan supported program and under other approaches to education now being followed. Such analysis was not made in developing the program, however, and data are not available to permit us to do it.

There have been substantial shortfalls in meeting the targets for the specific program supported by the first Brazilian loan, due mainly to increased costs, especially for construction. Even though the financial plan provided for a significant reserve for increased costs, it proved to be entirely inadequate. The cost of even the reduced program had reached \$70 million by the end of 1974 as compared with the estimate of \$64 million when the loan was made. Such increases have been financed by the GOB without an increase in the AID loan. About 70% (185 out of a planned 270) of the new ginsios originally planned will be constructed, none of the 30 ginsios will be converted as planned and no colegios will be built (8 were planned). The anticipated increase in enrollment capacity will be proportionately decreased (from 240,000 to about 160,000) and about one-half the number of teachers and other personnel originally planned to be trained will receive training (about 13,000 out of a planned 27,000+).

Under the Colombian Plan some specific targets for program accomplishment apparently were established. However, these were not set forth in the loan program in an organized and consistent way, and no system for regular assessment of progress against targets was installed. Most of the targets mentioned in the loan documents were not quantified and the quality and meaningfulness of their accomplishment is not susceptible of assessment. Quantified targets were usually for a period of a year and were unrelated to any targets for the total period of the program. One can conclude that large numbers of teachers received some kind of training, but cannot reach conclusions as to the content and adequacy of the training or of the relation of the number receiving such training to the number requiring training. Although large numbers of classrooms were built, conclusions cannot be reached as to the relation of the number

constructed to the number needed. There were very substantial shortfalls in accomplishments against targets for operation of satellite schools and rural centers. Targets for the construction and putting into operation of the INEMs were probably accomplished, but these were directly financed by the IBRD.

Insofar as an increase in available educational spaces is concerned, data show that there was a sharp increase in the number of primary classrooms constructed. This probably was a direct result of sector loans. Primary school enrollment also increased, but at about the same absolute number per year as in the previous period and thus at a lower annual percentage rate. The CAP for Loan V indicates that 1,176 secondary classrooms were constructed in 1969-1970. However, we have found no data on total secondary school construction. Secondary school enrollment also increased at about a constant annual percentage rate, and thus at a greater absolute amount per year than in the four years immediately preceding 1969. In view of the fact that construction was a large part of sector activities, it is probable that the construction of secondary spaces also increased, but not as much as the number of primary spaces. The index of enrollment, however, shows a much greater increase for secondary than for primary education.

The Panama loan established specific targets for the number of primary and secondary classrooms to be constructed. The Sector Assessment indicates that later targets for secondary classroom construction are considerably higher (double) and that the targets are being met. It further indicates that the total construction program partially financed by the first loan has permitted an increase in enrollment of about 160,000 (from 309,821 to 470,184) from 1968 to 1973. It also indicates, however, that a deficit of more than

1,000 classrooms remained at the end of 1974 and that the decision to make education universal and mandatory through the ninth grade will add to that deficit.

In sum, it appears that neither were the programs sufficiently comprehensive, nor the amount of resources allocated adequate to improve management and administration across the board. Nevertheless, the methods of operation were such as to result in improvements in the agencies most directly affected.

Chapter 6  
IMPLICATIONS FOR SECTOR APPROACH CONCEPTS

CONCEPT OF A SECTOR APPROACH

A "sector approach" is described in somewhat different ways in various AID documents and apparently means somewhat different things to different people. The conception of it has also changed over time. Nonetheless, however it may be described and whatever individual conceptions of it there may be, it appears that there are certain attributes or key elements which are generally understood to characterize or be contained in it. The more important of these are:

1. The selection of a particular segment of an economy as an area on which assistance is to be concentrated in an integrated way;
2. The development of country plans and the establishment of over-all goals to which sector goals can be related;
3. A "sector analysis" leading to a definition of sector goals and problems;
4. A "commitment" at high levels in the host country government to making sector policy changes and to a decision making process based on analysis; and
5. A large, multi-year sector loan (or a series of periodic loans) designed to evoke and support policy changes, stimulate increased allocation of resources to the sector, and assist in the financing of goal and policy related sector programs.

Rogers, in his sector loan discussion paper<sup>1/</sup> says that "the key management principle has been instituting a cyclical process of decision making and control: analysis, planning, implementation, evaluation, and repetition of the cycle." This appears still to be a valid statement of the current conception of the processes involved.

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<sup>1/</sup> Op. cit, p. 41.

The 1973 Colombia DAP lays out the theoretical basis for a sector approach as follows:

The facts of inertia, bureaucratic interests, and total demands for resources in excess of resource availability make it necessary that an "external stimulus of some magnitude" be provided to bring about a major shift in government policy and in the allocation of resources. An analysis of the structure and problems of a particular sector provides the basis for establishment of a program to deal most effectively with the problems of a sector. An AID loan to support a major increase in government expenditure provides the stimulus to the government to make the necessary resource shifts. As the program progresses its achievements and the vested interests created cause further increases in government support for the sector making possible the gradual reduction and eventual elimination of AID support. The expected results of the sector lending, then, are an integrated approach to the problems of the sector and a permanently higher level of government allocation of resources to the sector.

While the statement was made in relation to a "budget support" approach to sector lending, it still expresses well the general theory underlying a sector approach generally. With respect to a budget support approach to lending, the DAP says that its flexibility and speed of disbursement and its relation to the country's budgetary cycle makes such an approach an exceptionally effective device for affecting priorities and accelerating implementation of key social programs.

Advantages of such an approach are expected to be an ability, through the analytical process and the scale and nature of the loan, to exercise "leverage" on policy decisions and resource allocations, to make possible integrated programs with sector wide implications, and to relate sector programs to broader national goals and objectives. An ability to program and disburse funds with greater ease and speed than in the case of project loans has also been an expected desirable characteristic from the point of view of AID's programming process.

These elements of the sector approach concept were involved in differing ways and varying degrees in the education sector programs in all three countries. While as indicated below we think that there were problems due to the definition of the sector, at least in the cases of Brazil and Panama, a specific area was singled out for study and programs were focused on

what were considered to be interrelated problems in that area. All the countries did establish overall country and sector goals and attempt to relate sector programs to those goals. While one can raise questions as to the appropriateness of the goals and the nature of the relationships among them, their development does represent a serious and commendable effort which provided a much improved basis for interrelated program planning. Again while analysis fell considerably short of what might be considered in sector approach theory to be complete and entirely adequate "sector analysis," the countries did conduct many studies and develop plans based on them which provided an informational and analytical base for programs which was far superior to that which had previously existed. Decisions to bring about changes in educational policies and programs, based in considerable part on analysis involved in development of the plans, were made at very high governmental levels. This is underscored by the great, widespread effort which went into the development of plans, the involvement of very high level government officials, the adoption of educational reform legislation, reorganization of the structure for management and administration of education, and establishment of special organizations for administration of sector loan supported programs. The programs were long term and AID did support them with multi-year loans.

The experience suggests, however, the possibility of a need for changes in conception of what a sector is and in the effectiveness of a sector approach as an external stimulus in bringing about policy and program changes. Sustained increases in allocation of resources particularly may be more limited than is commonly assumed in sector approach doctrine. The experience also seems to suggest that the approach may not result in accelerated AID assistance. Finally, it appears that the approach may involve certain risks not usually recognized. These questions are discussed below.

#### DEFINITION OF THE SECTOR

AID literature on a sector approach is not, and probably should not be, specific on what a "sector" is considered to be. However, there seems to be an implication in it that a sector is to be understood as being some functional segment of an economy or society such as education, agriculture

or health. Sector lending practice and "sector analysis" have firmly ingrained that conception into AID's approach. This seems to have been the conception involved in the approach followed by AID in the Brazil, Colombia, and Panama programs. While this sector is not specifically defined in any of the three cases, it is clear that conceptually the sector was considered to encompass all aspects of schooling, but pragmatically was considered to be the primary and secondary public school systems in Brazil and Panama and the entire formal public school system through the university level in Colombia.

This manner of handling the definition of the sector has given rise to a number of difficulties. In the first place, it has led to uncertainty regarding the purposes of the lending programs in that it has not been clear whether they and the programs supported were intended to be directed at the entire spectrum of educational activities within the country or some specifically limited segment of such activities. This uncertainty has been further reflected in an uneven coverage and a lack of focus in the AID analysis. Since the sector was not defined in specific terms, it has not been possible to know with needed specificity what systems of relationships were involved and just how program activities were or should be related to them.

It further appears to us that the sector should be defined in relation to objectives and target groups rather than to functional areas. An area such as education, or some educational subsystem, may be too broad or too narrow depending upon what purposes are to be accomplished. For example, if the purpose of a program is to change the incidence of educational benefits among classes or geographic areas, the sector may include the entire formal education system or it may include only specific elements of that system, depending upon where the imbalance lies. If the objective is increased educational opportunity for a particular group, it may be only that portion of the education system which infringes on or pragmatically can be expected to affect that group. Again, if the objective is to increase the welfare of a selected group, the sector may be a broad system of relationships, including selected educational and non-educational elements. The emphasis in the "mandate" on target groups seems to us to reinforce the necessity for

defining a sector in relation to objectives rather than functional areas. A functional area, or sub-area, should be considered a sector only when the objective is such that factors bearing upon the objective are limited primarily to functional area activities and relationships. It appears to us that a concept of "the educational sector" had best be abandoned and the sector defined in each case so as to encompass the system of relationships which bear upon the objective.

#### INFLUENCE ON SECTOR POLICIES AND PROGRAMS

An assessment of the effectiveness of the sector approach and sector loans as a means for influencing country policies and programs involves examination of: (1) whether the adoption of a sector approach and the prospective loans influenced the policies and programs being incorporated into country sector plans; and (2) whether the sector loans themselves were used as a means for bringing about changes in host country plans, policies, and programs already adopted or were otherwise influential in bringing about such changes.

In Panama, the university team did make substantive inputs into development of the plan supported by the first loan. There is evidence that the analysis done in preparing that plan provided an impetus to and an occasion for Panamanian educational leaders to become aware of educational problems and to begin to develop new ways of dealing with them. There is also some indication that the studies leading to the first loan and the programs supported by it may have led to reexamination by the GOP of its educational policies and to development of a new entirely Panamanian plan incorporating changes and elements responsive to Panamanian conceptions and aspirations. However, neither AID nor the university advisors were substantively involved in the preparation of the new plan.

The analytical work for the second loan done by AID was not undertaken to provide inputs into the GOP planning process. It was prepared subsequent to development of the Panamanian plans and primarily as supporting material for the loans. It does not examine alternative policies and programs and provides no basis for use of the loans as means of substantively influencing Panamanian educational policies and programs, nor do the loan papers suggest that the loans are to be used for that purpose. The loan agreement for the first loan

contains no conditions or covenants relating to changes in GOP policies or programs. It might be said that the emphasis in the first loan on quality and management improvement was an attempt to lead the GOP to place more emphasis on that aspect of educational problems and less on quantitative increases in educational opportunities. In fact, however, a quite small amount of the loan was earmarked for this purpose, which in practice the GOP proposes on transferring from technical assistance in that area to construction.

From all this, it appears that adoption of a sector approach by AID probably led it to provide Panama with technical assistance in educational planning through which a substantive input to development of educational policies and programs was made. It further seems that the work resulting from this assistance, and possibly the necessity for developing a program to be supported by prospective sector loans, did provide the impetus and occasion for developing and making decisions with respect to sector policies and programs. **However, technical assistance** in planning has long been provided by AID under traditional technical assistance programs without regard to a sector approach. Whether in this case the adoption of such an approach and the provision of sector loans were necessary as incentives for development of sector policies and programs is uncertain. We would, however, venture a judgment that they were a factor in that result. Clearly, however, the adoption of the approach and the provision of the loans were not proposed explicitly as a means for **influencing the adoption of particular policies and programs or influencing program and policy changes.**

The policies and programs included in Colombian plans were based in part on prior studies financed by the GOC, AID, IBRD, and UNESCO. During the mid 1960s, AID also provided technical assistance in education planning, and prior to the adoption of a sector approach included a National Planning Project in its program. Provision of this technical assistance provided occasion for AID-GOC discussion of educational policies and means of educational administration and planning. In this process, a productive input was provided to GOC consideration of and **decisions with respect to** reorganization of the governmental structure for planning, financing, and managing public education. This structure provided the organization and

procedures for administration of the Colombian education programs supported by the sector loans. While those AID inputs were provided with little relation to the adoption of a sector program, they did constitute an AID influence on the nature of the policies and programs included in the Colombian plan. Studies conducted by the IBRD and Consultative Group (see below) also exercised some influence on areas selected for emphasis and on programs components (e.g., secondary education and model comprehensive schools -- "INEMs") included in the plans.

The first three education sector loans were made as part of large loan "packages" consisting of program loans (until 1970), other sector loans, and PL-480 commodities. Balance of payments, internal stabilization, and overall macro-economic performance considerations were dominant, with sector considerations distinctly secondary. The size of the packages was related to estimated balance of payments needs and previous aid levels. Assistance was provided in the context of an IBRD-chaired Consultative Group, of which AID was a member, which provided a forum for review of Colombian plans, economic performance, and foreign exchange needs. Such reviews provided a basis for commitments by Colombia on economic measures to be adopted and for development of amounts of assistance to be provided by members. Commitments related primarily to macro-economic considerations such as export and import levels, exchange rate policy, total government investment and borrowing, tax policy, and the like. AID lending was then related to these commitments. At the same time, the IBRD was becoming concerned with education sector problems, conducted a number of studies in the sector, and made loans of significant size. There was developed a formal memorandum of understanding between the GOC and the IBRD concerning the nature of the educational policies and programs to be undertaken by Colombia.

The conditions in which the AID sector loans were developed and the fact that capital assistance to education at first took the form of importation of commodities and the allocation of local currency to provide support of the education budget led to varying interpretations as to the purpose of the loans, particularly as to whether they were to be considered essentially program loans or as sector loans for accomplishment of sector purposes.

Under all these circumstances, the loans were not well suited to any purpose of influencing educational policies and programs. They were only one of several assistance devices being utilized and did not of themselves provide a procedural or institutional means for GOC consideration of its policies and programs. Their purposes were in fact conflicting in that greatly increased sector expenditure could aggravate the problem of internal stabilization, while on the other hand reduced budgets could interfere with accomplishment of sector objectives. Use of the loans as instruments, or if necessary, sanctions, for accomplishing both purposes might not be possible. Continued problems of inflation did in fact result in such a dilemma.

The larger framework of US/Colombia relationships was thus not conducive to the use of potential US loans as the occasion or focus for attempts by AID to influence GOC educational policies and programs had it desired to do so.

It is clear, however, that no attempt was made to use the loans as a mechanism to change Colombian educational policies and approaches. The sector purpose of the loans was primarily to increase the flow of funds to an activity in the sector rather than to bring about changes. Conditions precedent, covenants, and warranties refer only to levels of educational financing, efforts to accomplish the development program set forth in the GOC-IBRD agreement, encouragement of the conduct of certain studies, establishing certain coordinating mechanisms, and "best efforts" to enact legislation relating to the teaching profession. In actual implementation little was done to assure compliance with such provisions. USAID personnel, with a background of close work relations with Colombian planning and education agencies and officials, testified that the Colombian educational policies and

programs were prepared by competent professionals in whom they had confidence and were accepted by USAID as being adequate in their major aspects and as not requiring substantive changes.

In the case of Brazil, AID funded a university contract for technical assistance in planning to certain states and the Ministry of Education for a number of years preceding the first loan. The GOB prepared a Ten Year Plan for Economic and Social Development which was issued in March 1967 establishing goals and roles for education. The Ministry of Education and Culture prepared Sector Plans for Education within the context of the overall plan. This assistance in planning provided a relationship under which there was a continuing interchange of ideas among Brazilians, the specialists provided under this technical assistance contract, and AID technicians. The Brazilian plans were, however, the result of Brazilian efforts with any substantive AID input coming indirectly through the technical assistance contract and AID-GOB relations in connection with planning the loan.

AID began working with Brazilians in 1966 preparing for a sector loan. This work, however, apparently involved consideration of such questions as what part of the educational system was to be covered by the loan; what program components would be included; what states would participate; what the size of the program supported would be and how its financing would be shared among AID, the Government of Brazil, and the states; and what the division of responsibility for program implementation would be and what methods and procedures would be used. It does not seem to have involved an attempt to influence basic educational policies and approaches or the overall program elements in the plans. The basic policies as to the role and function of education; the curriculum changes and educational methods

involved; and the multi-purpose school concept and method were the results of Brazilian choices with which the USAID was in complete accord.

In Brazil, as in Colombia, AID assistance prior to the sector loans was dominated by balance of payments and internal stabilization considerations. Commodity import programs financed with program loans and allocation of resulting local currency counterpart funds were major elements in that assistance. The first education sector loan was made in such a context. It also, as in Colombia, was made as a part of a "package" which included, as authorized, a \$75 million program loan, release of \$50 million of counterpart funds, PL-480 assistance, project loans, and a health sector loan, as well as the education sector loan. The size of the total package authorized was known by the GOB, but each loan was negotiated separately. The prime objective of the total package was to bring about a reduction in the rate of inflation. In negotiating the program loan, emphasis was placed on GOB actions to control the budget and credit, reduce costs, and adopt realistic exchange rates. Approval documents related sector loans to increased investment and substantive reform in the sectors. The sector "reforms," however were those which had been made a part of Brazil's educational plans.

The limitations of using mixed purpose loans for influence on sector policies and programs which existed in the case of the Colombia loans also applied in the case of the first Brazil loans. Neither do the CAPs for the loans suggest that the loans were to be used to influence GOB policies and programs. They do, however, indicate that the programs supported by the loans would be used as a demonstration and incentive by which reforms desired by the Brazilians would be introduced into

the educational system. No conditions relative to the substructure of Brazil's policies and programs were included in the loan agreements. USAID personnel have indicated that AID agreed with the Brazil policies and programs, and there was no need to attempt to change them. They also indicated that any such efforts would have been contrary to the assumptions of "mature partnership" and a "more collaborative style" adopted by AID.

While it is apparent that the sector loans were not used to influence the nature of Brazilian educational policies and programs, USAID personnel and Brazilians testify convincingly that the possibility of substantial sector loans and the necessity for developing specific programs to be supported and means for their implementation provided the occasion and the focus for GOB consideration of policy issues and of the specifics of program content which would not otherwise have been available. The Brazilian government representatives stated that the process facilitated development and adoption of an educational philosophy and approach which would not otherwise have come about for many years, if ever. Based on our understanding of the situation, we find this testimony credible. The USAID also argues with some plausibility that adoption of the program infused a new attitude and spirit into Brazilian education and provided a practical demonstration which made changes and reform much more acceptable.

It further seems quite clear that in the case of Brazil the methods of implementing the loan programs provided the host country with means for establishing incentives for and inducing the adoption of new policies

and programs. The program strategy was appropriate to the purposes intended and seems to have contained elements likely to be effective in bringing about the intended results, provided that the program philosophy and the contemplated system changes themselves prove to be feasible and supportable over time. The selection of a critical element in a larger whole to serve as a catalyst for change in the whole, the decentralization of planning (within overall policy) to state units, the requirement for approval of plans at the national level as a condition of receipt of funds, the provision of technical assistance in planning, the assurance by having them in hand that funds would be available if plans were prepared, and the use of a single visible element in the system about which all activities could center to provide a focus and demonstration, all taken together seem to provide a flexible means of bringing about change, and still one which has sufficient control and power to accomplish desired results. Such a combination seems unusual and may offer potential for use elsewhere, with suitable modifications to meet different circumstances, as a means for introducing system changes. The argument that AID loans were an essential element in the strategy is persuasive.

From this examination, we find that the basic educational policies were developed by the countries themselves and that the existence of a sector approach by AID or the prospect of sector loans were not major factors in the choice of policies considered or adopted, or in the content of the educational programs. To some extent, the policies, plans and programs may have been influenced by studies financed by AID and others, but, except possibly for the Pennsylvania State University study in Panama, the studies were not undertaken in contemplation of a sector loan. Neither did the loans themselves affect the nature and content of policies and programs. We found little evidence that the dialogue concerning the loans included consideration of what the countries' basic educational policies should be. Any significant impact on educational policy and the nature of the programs supported by the loans seems to have been derived from previous technical assistance and AID-host country relationships over time rather than from the development and making of the sector loans themselves.

On the other hand, we find that adoption of a sector approach and the development of sector loans in Brazil and probably in Panama did provide

the occasion and focus for host country consideration of and decision on questions of educational policy and programs. In Brazil, the approach provided a means for inducing the changes which Brazil wished to bring about.

The principal reasons for the absence of influence on policy and program content were:(1) in the case of Colombia and the first Brazilian loan, purposes were mixed and related as much, if not more, to non-sector as to sector considerations; (2) AID accepted the basic country education approaches, policies, and programs as valid, made an independent critical analysis of them, and saw no need to suggest significant change; and (3) it was convinced that any attempts to change decisions made or otherwise directly influence policies and programs would be unavailing and result in a deterioration of productive AID/host country relationships. The interpretation of "mature partnership" and "more collaborative style" concepts as meaning more or less uncritical acceptance of host country positions may have also been a factor to some degree.

While it appears that no attempt was made by AID to use the approach and the loans as a means of exercising leverage on choice of basic educational policies, we would not want to argue that use of direct leverage would have been desirable or feasible. Public education is a highly sensitive area of national policy in which anything which might be interpreted as foreign influence would be resisted and rejected. This is not to say, however, that the adoption of a sector approach in education and the development of sector loans cannot be used as the occasion and focus for constructive dialogue between AID and the host country on significant and even fundamental questions. There appears to be no reason why, under circumstances of mutual professional respect and confidence, there cannot be discussion of the implications of educational theory and generally accepted educational practice; the results of educational experience and research for educational policies and programs; problems and the relation of programs to their causes; the implication of cost and financial requirements for feasibility; priorities among competing objectives; and choice among program options. For such a meaningful dialogue to be carried on, however, AID must have made its own analysis in these terms.

In our judgment, several conditions must exist for an AID sector approach and sector loans to provide the occasion and focus for host country consideration of its education policies and programs. First, it is necessary that the country recognize a need for examination of its current situation. As a practical matter it is probably necessary that it have had under way an examination of the present situation and that some ideas be in the process of formation, even if in an unorganized and discontinuous fashion. Second, there is need for an institutional and staff capacity to analyze the sector's problems and development programs and arrive at decisions. Finally, there needs to be a willingness to work cooperatively with AID and to take a position that US assistance can play a constructive role in the accomplishment of host country objectives without undue sensitiveness to questions of external interference.

#### INFLUENCE ON RESOURCE ALLOCATIONS

Panama's educational expenditures are high and an increase in expenditure was not an objective of the Panama loans. No overall increase in relative sector investment was contemplated. Factually, while there has been a large and continuous increase in the absolute amount of expenditures on education, education sector expenditures as a percentage of the total budget declined from 30.4 percent in 1969 to 24.2 percent in 1973.

A significant and sustained increase in total resources going to the sector was a major objective of the Colombia loans and was the primary rationale for the sector budget support approach adopted. In practice, however, the GOC did not adopt the hoped for tax legislation to provide for increasing sector resources. Assertions are made in various documents that education expenditure rose during the sector loan period. We have, however, been unable to find any definitive discussion and factual account of results and have not been able to resolve differences in data. Based on our admittedly imperfect analysis of incomplete and sometimes conflicting data, our conclusions are that the data suggest that: (1) total educational expenditures in real terms probably rose during the period of the sector loans; (2) they did not rise faster than total government expenditures and probably rose by a considerably smaller percentage of total expenditure during the period than in the 1952-1966 period; (3) there is

a fairly strong suggestion in the data that the increase in absolute terms was part of a generally growing level of total government expenditures; and (4) it is not possible to reach any meaningful conclusions as to the relation of AID sector lending to any increases in expenditures which occurred. Finally, it is significant that when reduction of the government budget was considered to be necessary as a means of dealing with the internal inflation, very sharp reductions were made in the education budget and in the program, to such a degree that the last AID loan was reduced after it was made.

An increase in the level of financial resources going into education in general and secondary education in particular was a stated objective of the first loan in Brazil and requirements for annual percentage increases in the amount of the education budgets of participating states were included in agreements. The second loan required commitments as to the percentages of the total budget to be spent on education and the undertaking of "all possible efforts" to increase education expenditures in real terms each year. Participating states found it difficult to meet their commitments under the first loan. Data provided by the USAID show that, after a change in the base period, they were met. The data show that by 1973 the percentage of total participating state budgets going to education was at least 26 percent (required base period of 20 percent plus 2 percentage points per year). However, these data also show that the percentage in the base period was higher than 20 percent in three states, that in two of four states it had not increased over the base period (having fallen in one), and that in a third the increase was 2.8 percentage points in the three-year period.

Our conclusion is that while an argument may be made with some plausibility that the sector loans in Colombia and Brazil may have exercised some influence on the level of investment in the sector, the evidence is not such as to be convincing that sector loans do in fact provide an effective means for obtaining and sustaining a significant increase in allocation of resources to the sector. There is also no convincing evidence of a significant influence on internal allocations within the sector.

## ABILITY TO FACILITATE AID ASSISTANCE

An ability to provide assistance quickly and in significant amounts was advanced as a characteristic of sector loans. Experience in the three countries has been such as to raise questions as to the complete validity of such an assumption. In the first place, the period of development of the first Brazil loan was quite long. This arose in part out of considerations entirely extraneous to whether sector or other type loans were contemplated. Nonetheless, the period of development of the first sector loan involved some two or more years and it is not unreasonable to speculate that it might have been possible to have made some project loans sooner. Doing planning and making the kind of sector analysis contemplated by a sector approach is clearly a large effort requiring considerable time and resources. Deficiencies in analysis undoubtedly flow partly from failure to allow sufficient time to do the needed work. The recent Panama Education Sector Assessment is a case in point. Present pressures are in the direction of progressive expansion in the scope of such analysis which is likely to increase the requirements for time and resources for their conduct. The fact that full analysis requires so much time and resources may be one reason that loans have gone forward in its absence.

The approach has, however, resulted in the authorization of relatively large amounts of loans in Brazil and Colombia. Two loans for Brazil, totaling \$82 million, were authorized in a period of two years. The first, in the amount of \$32 million, was, however, essentially a loan for school construction and might have been just as easily made as a project loan. The specific content of the second loan was not precisely defined and it seems most unlikely that it would have been possible to make project loans totaling such a magnitude in the year between authorization of the first and second loan.

In the case of Colombia, it seems unlikely that it would have been possible to have made annual loans for a period of five years totalling \$75 million without a sector loan approach. In fact, the scarcity of individual projects was one of the reasons for opting for a budget support sector loan approach.

The first Panama loan was essentially a loan for school construction and might have been made initially as a project loan with relative

ease or certainly could have been handled as a series of project loans over a period of time. The second loan is also expected to be largely for school construction and a sector loan appears to have little advantage as far as facilitating absorption of assistance is concerned.

On the other hand, the experience has not demonstrated that sector loans are highly effective as a means of facilitating disbursements once loans are authorized. The time required for disbursement of the sector loans generally has been considerably longer than was expected when the loans were made. This has been true under conditions in which much time was spent before authorization of the loans in development of program content and methods of implementation as with the Brazil loans, and also in the case of a general sector budget support approach as in Colombia. The following table shows the period of time involved.

Country of Loan	Date of Authorization	Date of Signature	Final Disbursement Date		Amount of Extension (Months)	Period from Authorization to Final Disbursement Date (Months)
			Original	Revised		
<u>Brazil</u>						
L-078	6/29/68	11/13/69	6/30/74	6/30/75	12*	84*
L-081	6/29/70	6/17/71	6/30/77	6/30/77	-	84
<u>Colombia</u>						
L-054	4/25/69	5/19/69	12/31/70	2/28/75	50	70
L-059	5/28/70	6/11/70	12/31/71	2/28/75	38	57
L-065	6/17/71	8/19/71	6/30/73	12/31/75	30	54
L-066	5/25/72	7/31/72	12/31/74	12/31/75	18	36
L-073	7/30/73	7/26/74	12/31/75	12/31/75	-	29**
<u>Panama</u>						
L-036	6/25/70	1/19/71	3/31/74	6/30/76	27	72

\* Actual final disbursement made in July 1975 so that period to final disbursement was in fact 73 months.

\*\* No disbursements had been made against this loan as of June 30, 1975. When any disbursements will be made is not clear, and it appears that circumstances are such that it probably should not be included in judging sector loan disbursement periods.

It is apparent from this table that the time from authorization to final disbursement date has ranged from three to seven years, and that a range of four and one-half or five to seven years has been more typical.

Such long periods from loan authorization to final disbursement date have resulted from various factors such as unanticipated delays in negotiating loan agreements, problems of meeting conditions precedent to disbursement, slowness and individual problems of program implementation, and, especially in the case of Colombia, slowness in the flow of funds through the governmental structures. In the case of Brazil, the nature of the programs themselves, requiring, as they do a process of developing plans by several states, review and approval of them by the Federal Government, and the undertaking of large construction programs requiring time for their completion, were important factors.

It thus appears to us that contrary to popular doctrine sector loans involving support of significant policy changes, financing of many activities, and requiring major host country administrative and implementation efforts are likely to involve quite long disbursement periods. When the sector strategy requires, as in the case of the second Brazilian loan, the commitment of funds in advance of specifically identified program activities and the assurance of the availability of funds over the life of the program, periodic loans are not a practical solution. The Colombia experience suggests they may not be a solution even when the strategy is to provide general sector support.

#### POSSIBLE RISKS

The conceptual basis for a sector approach incorporates a quite persuasive logic and is very attractive from one point of view. It provides an orderly and logical framework for analysis and a quite rational approach to program formulation. In principle, it provides a basis for considering goals and problems in a context of interrelations and a means for providing assistance of a nature and with a coverage which has potential for "break-throughs" in the solution of particular problems or for significant expansion of the level of significant activities. Looked at from another vantage

point, such a conception may appear rather hectic, calling as it does for establishment of long-term goals and policies, the application of a formalized analytical process and the acceptance and use of analysis as the primary basis for the formulation of goals and programs, and political, institutional, financial, bureaucratic, and personnel commitments to such goals and programs. Among the more significant assumptions involved in it are: (1) that enough is known or can be established from analysis to permit establishment of long-term goals and programs and to justify such commitments to their accomplishment; (2) that cause and effect relationships are clear; (3) that the major conditions giving rise to sector problems are internal to the sector; (4) that inputs directed toward solution of such problems are largely subject to sector management control; and (5) that the capability exists or can be established to provide the requisite planning, analysis, and administration. It seems apparent that from this point of view the practical applicability of the concept and the extent to which it should be applied in given circumstances can be questioned.

Examination of the experience with use of a sector approach in the three countries and reflection on that experience convinces us that there is enough evidence that such assumptions fall sufficiently short of reality to justify some care in the way the approach should be used and that there may be certain risks in such an approach which may not have been recognized. In particular, it seems to us that there may be the related risks that such an approach may tend to discourage innovation and experimentation and to enhance the danger of increasing gross aggregative distortions.

Sector loans in all three countries have been or are proposed to be made to support programs which bring about changes in the education systems. Educational "reform" is a central objective of the loan-supported programs in Brazil and Panama, and "innovation" is a theme in both AID and Colombian documents. While changes may represent sharp departures from past practice and approaches within the countries concerned, they have not been "innovative" in the sense of representing departures from well-known theories and practices. Their introduction has not been

considered experimental in nature. They have instead represented efforts to install massive and simultaneous changes in entire systems based on established new policies for each system.

Observation of them seems to confirm that a sector approach involving the investment of large amounts of host country and AID funds may carry an inherent danger of inhibiting attempts at experimentation and "trying something new." In the first place, the emphasis on identification of sector and country objectives, the development of national and related sector plans, and the adoption of integrated programs to carry out the plans and accomplish the objectives carry an implication of a straight line approach to known objectives from which one can derive clearly understood programs directly related to desired results. Such an approach tends to leave little room for experimentation, testing of options, or introduction of approaches or programs not demonstrably within the accepted and established framework. The heavy emphasis on "sector analysis" as a tool for identifying problems and developing solutions and thus a basis for program decision seems to have a similar orientation. It is far from obvious that creative "innovation" will flow from such an analytical process. It may even be that the attempt to make programs "systematic" or "integrated" tends to inhibit innovation and experimentation by the host country and, more importantly from the point of view of this evaluation, by AID, which is not constrained by the sorts of political pressures which inhibit free discussion of alternatives and issues within host country governments.

The emphasis on "commitment" and the investment of large amounts of AID and host country resources in support of particular sector programs may reinforce the tendency to shut out experimentation and innovation. The theoretical solution to this problem is obviously to recognize explicitly the absence of known solutions to problems and the existence of much uncertainty as to the best course of action in many areas. However, it is probably unrealistic to expect programs involving the "commitments" and scale of financing contemplated under a sector approach as now understood to be explicitly labelled as experimental by

either the host country or AID. It may be asking too much of human nature, bureaucratic instinct, and political necessity to expect governments (US and host country) to make strong commitments to particular approaches and large investments in them and, at the same time, consider their approaches and programs as experimental or to introduce into them innovations and explicitly experimental undertakings, the results, or even the existence, of which may call into question the wisdom and soundness of the approaches adopted and the investments being made.

Similarly, and for many of the same reasons, the risk of increasing gross aggregative distortions may be inherent in programs involving long-term goals, heavy political and bureaucratic commitment, and large-scale, multi-year financing. This risk is increased if provision is not or cannot be made for feedback of information on errors, progress, and results. If cause and effect relationships are uncertain, if the capacity to obtain and analyze necessary data is weak, and especially if the nature of the results is such that results do not in fact occur until after the program has largely run its course, the possibility of effective feedback may be extremely limited. These conditions seem characteristic of public school education, particularly when it is related to economic development goals since there is so little knowledge of the relations between educational inputs and outputs, of the relation of education to economic development and to income distribution, and of the extent to which factors internal and external to the sector are constraints on achievement of objectives. Even if timely feedback of results is possible, it may be extremely difficult to make changes in country policies and programs arrived at by the processes which characterize a sector approach supported by strong personal, professional, and institutional commitments.

Data are not available and the programs have not been in operation long enough to permit conclusions as to whether there has in fact been such a result in any of the three countries concerned. It appears, however, that the characteristics of the programs supported, i.e., requirements for school size, qualifications required for teachers, and the

desire to exercise a demonstration effect may all work in the direction of continuing or increasing distortions in the distribution of benefits as between urban and rural areas and between economic and social classes. These characteristics and attempts to relate basic education to economic development needs may lead to an education system whose cost is so high as to prevent its general applicability and thus to perpetuate or give rise to a system which is restricted in applicability and open to fewer students thus aggravating the problem of unfilled demand for education. Data which would permit **comparative** cost analysis were not available to us. The programs supported, however, appear prima facie to be high cost options and it is not clear what may happen to the approach if financial constraints force a substantial reduction in per pupil costs.

#### CHOOSING A FEASIBLE APPROACH

The upshot of all the foregoing "implications" is that sector planning and programming remains a promising way to tackle education development problems, but that the pitfalls are numerous. The sought-for "cyclical process of....analysis, planning, implementation, evaluation, and repetition of the cycle" has proven elusive. We have tried to search out and examine the points at which efforts to achieve that cyclical process faltered, and to recommend how some of the problems might have been dealt with, or might be handled in the future. We have tried to keep our suggestions within the range of the practical and feasible. By concentrating and focussing the analysis process on the basic issues as we have suggested, we believe that AID can obtain a better basis for programs without inordinate workloads and programming delays.

## Appendix 1

### OUTLINE OF A CONCEPTUAL FRAMEWORK FOR EDUCATION SECTOR ASSESSMENTS

The following outline is merely a "first cut" attempt to provide a framework for a revised approach to the conduct of sector assessments. As such it undoubtedly has many omissions and deficiencies. It is submitted, however, as a possible base from which AID can begin to develop revised guidance. The objective should be to devise a framework which will: (a) better direct information and analysis to what is essential; (b) to insure that existing voids are filled; but also (c) keep the scope and coverage of the assessments from being so extended as to be impracticable. At this stage the emphasis should be on the better, the right, and the necessary, not on more and more.

#### I. PURPOSE OF THE ASSESSMENT

To provide AID with a basis for choice of

1. the kinds of programs to be supported;
2. the nature and extent of that support;
3. the approach to be made to the host country in negotiating assistance.

#### II. CONTENT OF THE ASSESSMENT

##### A. AID Objectives

Analysis from an AID perspective of the objectives which would be furthered by some type of education program.

In principle, objectives might be conceived of at three levels: (1) broad societal goals related to overall economic growth, changes in the distribution of income or access to earning opportunities, and changes in the social institutions and relationships; (2) more limited goals related primarily to education such as increased access to educational opportunity, increased equity in the distribution of educational benefits, improvement in the quality of the education received, or increased supply of particular skills; (3) goals for improvement of the well-being of a specifically defined target group or groups. While in principle any of these levels can be included for purposes of sector assessments, our strong preference is for confining the assessments to the latter two.

B. Appraisal of Host Country Goals, Policies, and Programs

Analysis of the host country's approach to development in the areas of interest, the appropriateness of that approach in relation to the problems as they are known and understood, their relation to AID purposes and objectives, and the possible role which an AID assistance program might play in serving both country AID goals and objectives. As indicated in II.A above, we would opt for consideration of more immediate rather than more distant, broad or abstract national or societal goals.

C. Assumptions Analysis

In analyzing the relation between educational factors and the goals and objectives to be supported, careful examination of the basis for acceptance of the validity of the assumptions made or hypotheses adopted in both the country and AID approaches.

D. Sector Definition

An identification of factors affecting achievement of objectives treated in A, B, and C above (if objectives are related to a specific target group, target group problems should be identified), and a definition of the sector in relation to those factors, with the sector to be considered as that system of related elements which directly bear upon the accomplishment of objectives. Factors which are indirectly related should be included only to the extent that they significantly and critically constrain achievement of objectives. The effort should be to hold the coverage of the sector within practical limits as constrained by time, data, and the state of the art.

E. Sector Problems

To include identification and analysis of problems related to achievement of objectives; analysis of their nature, causes, and relative importance, and appraisal of current programs and analysis of their accomplishments and deficiencies in relation to the objectives.

F. Potential Programs

To include:

1. An identification of specific program elements, their relation to objectives, and their relative emphasis;

2. A statement of the educational and pedagogic assumptions and hypothesis on which the program is based and of reasons for their acceptance;
3. An analysis of the relation of program elements to causes of problems, including causes external to the sector;
4. An examination of external constraints upon the accomplishment of objectives, and of any programs directed toward their removal;
5. An analysis of limitations and constraints on the ability to carry out the programs, including deficiencies in management and administrative capabilities;
6. An analysis of relation to previous programs and lessons learned from experience;
7. A financial and cost analysis to include:
  - (a) Examination of the financial feasibility of the entire program as related to total costs and expectations with respect to the total budget and financial situation and, if the cost is large, as related to possible overall economic implications; and
  - (b) Examination of the effect on unit costs and of implications of such costs for ability to generalize the programs and upon distribution of benefits.
8. Consideration of program options, both overall and among elements within the total program, in terms of relation to objectives and effects of costs upon other competing objectives. Strengthening of existing programs as compared with programs for "reform" of the system is an option which should always be considered.

### III. CONCEPT OF THE ASSESSMENT

Put in its most simple form, the outline above proceeds on the assumption that sector assessments are to answer the following type of questions that may serve as a check list to test for coverage of the essential points:

1. What AID purposes may education programs in a particular country serve?
2. What host country objectives and programs are related to AID purposes?

3. What is the "sector" in the light of such purposes and objectives?
4. What are the problems in the light of such purposes and what is their relative significance?
5. What are the causes (both internal and external to the sector) of those problems and what is their relative significance?
6. What programs are proposed to deal with the problem?
7. How will those programs deal with the causes and effects of the problems?
8. What are the cost implications of the program?
9. Are there alternatives?

or alternatively:

1. What is the target group in which AID is interested?
2. What are the objectives for the target group?
3. What are the problems from an AID perspective of pursuing the objectives?
4. What are the causes of the problems?
5. What aspects of education are related to those problems and what is the "sector?"
6. What programs are being carried on and are proposed to deal with the problem?
7. How will those programs deal with the causes and effects of the problems?
8. What are the cost implications of the programs?
9. Are there alternatives?

Data and information would be included only as required to support the analysis and should be limited to what is essential to that purpose.

FURTHER COMMENTS ON THE AID ANALYSIS DOCUMENT

Sector "Analysis" materials appear in various sections of the CAPs for the sector loans in all three countries, in much larger separate documents entitled "Education Sector Analysis" or "Education Sector Assessment," and in various papers and documents in AID files.

A. Sector Analysis Documents

In the case of Brazil, a "sector analysis" was undertaken in 1967 and a summary was issued in July, 1967 before the first loan was made. In addition to this, four other similar documents were issued under various titles, one in August 1969, another in March 1970, still another in October 1970, and a fourth in November 1972. These documents all follow the same organization and include the same subject matter coverage. There are few substantive differences in them. Later documents bring some data more up to date and describe actions which have been taken subsequent to the previous document and have a somewhat fuller description of various elements in the system. The 1969 document does include a "Strategy" section which contains some analysis. Such a section is not included in any of the other documents. These documents average about 100 single-space typed pages in size.

In the case of Colombia a single "Education Sector Analysis Paper" was prepared. It is dated April 14, 1972, which is subsequent to the third education sector loan and some three years after approval of the first loan. However, as indicated below, similar sector analysis material was included in the CAPs for the early loans. It has been revised from time to time to include later information. It consists of 15 chapters and 183 pages.

For Panama, a sector analysis study was conducted in the last quarter of 1974 and a "First Draft Sector Assessment" document was issued in December 1974. This draft was then reviewed and an "Education Sector Assessment" document was issued dated April 11, 1975. The draft document consists of an Introduction and 10 chapters and contains some 700 pages. The final summary document contains 5 chapters totalling 101 pages, a Foreword, a "country profile," a description of target populations, 89 tables, a 70-page appendix, and a listing of some 111 governmental, international, semi-autonomous, and private organizations involved in education/training activities. These documents were prepared as a part of the process of preparing a proposed second

education sector loan. While no such document was prepared in connection with the first loan, the CAP for the first loan does contain some similar material.

The Brazil and Colombia documents were prepared by USAID staff. The first draft Panama assessment document was prepared by a combined AID/W, USAID, contractor team of 11 persons consisting of specialists in general education, primary education, education technology, research, and education planning; a general economist; and educational economists. The final document was prepared by a contract team (with one AID assigned person) consisting of a specialist in general education and education planning and four educational economists.

### General Coverage and Content

There are many similarities among the sector analysis documents for the three countries. All of them describe the structure and composition of the system (levels, grades, types of schools, nature of the curriculum, etc.) and its administration. All have some discussion of the private primary and secondary schools and governmental adult, literacy, and skill training programs. All present data on enrollment, drop-outs, repeaters, and failures, and the financing of education. In the Colombia and Panama papers, there is discussion of the relation between education and economic development and between education and overall national goals, especially in the case of Panama. There is some discussion in all the documents of programs being undertaken by the respective governments. All the documents identify problems in the sector.

The Panama Sector Assessment contains a brief "country profile" which describes population characteristics and a short discussion of macro-economic factors including growth rates, investment, consumption, foreign trade, and prices. There is also some discussion of changes in the relative size and importance of various economic sectors. The First Draft Sector Assessment contains a chapter entitled Relation of Output to Priority Human Resource Development Needs in which needs for professional personnel in agriculture, health and community development are discussed. There is also a discussion of attitudinal factors affecting education of the Indian population, of non-educational factors affecting "the efficient utilization of learning

outputs," and finally of social benefits in the form of health/nutrition and family planning factors to be gained from rural education. The final document makes reference to the indicated need for professional personnel and includes an Appendix on social benefits of rural education. Similar material is not included in the Colombia and Brazil documents.

In addition to having similarities in coverage and subject matter content, the documents are similar in their treatment of the subject matter.

Problems identified may be summarized as :

1. An inappropriate primary and secondary school curriculum characterized by an academic rather than a vocational orientation and not related to the students' circumstances and needs and the country's requirements;
2. Limited access to the system as shown by a large unenrolled school-age population (less applicable to the Panama assessment) and lack of educational opportunity in rural areas;
3. Slow flow through the system, including high drop-out, failure, and repeater rates;
4. Inadequacy in number and types of facilities, including too few facilities and lack of libraries, laboratories, shops, and similar facilities;
5. Teaching inadequacies, including obsolete teaching methods and inadequately prepared teachers;
6. Low teacher salaries;
7. Lack of and/or poor quality of textbooks and teaching materials;
8. Inadequate planning, administration, and management;
9. Insufficient research and lack of research capability;
10. Inadequate financing in the case of Colombia and to a lesser extent in the case of Brazil;
11. High cost in the case of Colombia; and
12. Too great an emphasis on and lack of coordination of higher education in the case of Colombia and too many part time students and faculty, distorted enrollment by field of study, and need for leadership in higher education in the case of Brazil.

The documents are all based on the conception of education as an instrument of economic and social policy discussed in Chapter 3. This conception is made

explicit in the Colombia and Panama documents which contain specific discussions of the relation between education and development and education and social goals. The Panama Sector Assessment also charts assumed relationships between educational and over-all national and social goals. Such a conception is clearly implied in the Brazilian documents by the heavy emphasis given to the need for "reform" of the system to provide a "relevant" education and on the desirability of adoption of a vocationally oriented curriculum and the central role given to the Ginasio polivalente in the new educational system. It is rather explicitly stated in Brazilian planning documents quoted.

### Areas of Analysis

Analysis in the Colombian and Panama documents falls into five general areas: (a) internal efficiency; (b) external efficiency; (c) planning, management, and administration; (d) finance; and (e) cost alternatives.

### Internal Efficiency Analysis

The internal efficiency of the system is examined from the point of view of flow through the system with inputs measured by numbers entering the system and outputs by numbers completing particular grade levels. Calculations are also made of time required to complete particular grade levels. The problem is found to be severe at the primary levels and serious, but less so, at the secondary level in Colombia. It is found to be serious but improving, especially at a higher grade levels in Panama. The Colombia Sector Analysis Paper identifies incomplete schools in rural areas, change of domicile, lack of parental interest, illness, distance from schools, bad roads, necessity for working, and dilapidation of school buildings as cause of a high drop-out rate at the primary level. No causes of drop-out rates at the secondary level or of repeater and failure rates at any level are identified. High per pupil costs are also identified as a factor in inefficiency.

The Panama document says that "the proximate causes of measured inefficiencies are school desertion and grade repetition. Factors external to the system said to be likely contributors to desertion are lack of family and community incentives, need for labor participation at an early age, and high cost of school attendance (books, clothes, transportation). Internal system

factors are identified as an inappropriate resource mix (not enough expenditure on materials and supplies); high student/teacher ratios; inappropriate (non-vocational) curriculum (which is identified in the subsector heading although the discussion doesn't really seem to support a conclusion that the present curriculum is inappropriate); poor teaching methods; promotion procedures; inadequate facilities and equipment; inefficient central administration; inadequately prepared teachers; and lack of research and documentation.

There is no explicit analysis of internal system efficiency as in the Brazil documents. There is, however, discussion of pupil flow through the system in terms of high drop-outs, repeater, and failure rates. Two of the documents indicate that conditions external to the sector such as the income and educational level of parents, the opportunity costs of school attendance, and distance from school and requirements for transportation may be important causes of this problem. While not explicitly stated in documents, the impression is left that an academically rather than a vocationally oriented curriculum (lack of relevance) along with poor teaching methods are considered to be factors. Data are also provided on per pupil costs, but no relation to system efficiency is indicated.

#### External Efficiency Analysis

Both the Colombia Sector Analysis Paper and the Panama Sector Assessment attempt to analyze the "external efficiency of public education." While defined in somewhat different terms, external efficiency is in both cases conceived of as a relation of the output of the system to broad national goals which transcend specific educational objectives. The discussion in the Colombia Paper is in terms of perceived relationships between education (undifferentiated) and economic growth; income distribution; social mobility; and social, political, and economic "participation." The discussion in the Panama Assessment is in terms of an examination of relations between education and labor force productivity and economic growth and of effects of education on equalization of economic and social opportunities.

The discussion of the relation between education and economic growth in the Colombia Paper is in terms of the effect of education on the labor force. The conclusion seems to be that, on balance, education leads to a

smaller but better prepared labor force (smaller because educated people have fewer children); that education leads to more knowledge which can make labor more productive by changing the nature of the productive processes and, "indeed, the very products being produced."

The discussion of the relation between education and income distribution concludes that "there is ample evidence that in Colombia higher levels of education are associated with higher levels of average income and lower levels of unemployment" and that this has "obvious important implications for the distribution of income and hence for social mobility." An attempt is made to demonstrate this relationship by calculations of coefficients of concentration of income in 1964 and 1970 for a sample of the population through use of Lorenz curves and using the education levels of 1964. This calculation produced a coefficient of 0.566 in 1970 as compared with 0.604 for 1964 which is cited as evidence of a positive effect of education on income distribution.

An "intergenerational" effect and an effect on the birth rate are then cited as further evidence of the effect of education on broader income distribution. With respect to the first, it is argued that, since there is some evidence ("at least one study") that among the most important factors accounting for retention in the school system are the education of the father and mother, so that "an intergenerational chain is in existence whereby the educational distribution today affects the educational distribution in the following generations and through the correlation between education and income, the income distribution in future generations." (No explanation is given as to how this circle is to be broken in order to produce improved income effects.) It is then argued that since education tends to reduce the birth rate and that, if income is held constant, one would expect a lower proportion of children from large families to attend school, the tendency would be for income distribution to become more unequal. Where all this leads on balance is not discussed.

The foregoing discussion is followed by a section on activities in the Colombian program affecting income distribution. Included are brief discussions of programs for the construction of primary school classrooms in rural areas, provision of secondary school scholarships, loan funds for

higher education students, and non-formal programs directed at the "lowest economic classes." The conclusion is that "in summary there are explicit programs at all levels of the education system that are designed to widen the distribution of education in the country, so that the lower socio-economic groups receive a larger share of the education pie."

Following this is a discussion of the supply and demand for labor. It is stated that on an aggregate basis there is an obvious imbalance (it is not indicated, however, whether demand exceeds supply or vice versa, although reference is made to high open urban unemployment). Statistics are then presented as to unemployment by educational level and IBRD projections of manpower requirements are shown. No conclusions are drawn and the purpose of the discussion is not entirely apparent. If the purpose was to draw conclusions as to educational requirements stemming from projected labor demands, it does not seem possible to draw meaningful conclusions from the discussion and the data presented.

The discussion of social mobility includes a listing of actions planned and undertaken by the GOC and a presentation of data concerning the relation between university entrance and attendance at private and public schools and between entrance and income levels of the parents. Actions listed include: (1) provision of scholarships; (2) creation of a national service obligation for university students; (3) increasing parent participation in the operation of secondary schools; (4) increased utilization of classrooms and sports facilities; and (5) "strengthening" cooperative schools. The university enrollment data show a high correlation between enrollment and attendance at private schools and a high level of parent income. It is stated, however, that "such barriers are lowering." No other conclusions are drawn. The action items listed bear little relation to questions of social mobility and the section clearly does not constitute an analysis of the relation between social mobility and education.

The discussion of the relation of education to social, economic, and political participation interprets social participation as "involvement with social institutions of a large modern society, as opposed to local traditional institutions." The school is stated to be a key modern institution which has as its main purpose the integration of youth into society. School attendance then becomes by definition "social participation." It is also indicated that in Colombia education makes an important contribution to

"culture...a combination of knowledge and behavior that gives one value in the eyes of others and oneself" and thus contributes to social participation. Reference is then made to the Pastrana government "Social Front" doctrine which emphasizes the importance of educational programs in achieving national integration; to programs listed in the previous discussion of social mobility; and to non-formal education programs including the technical training system SENA; Capacitaciones Popular, and training programs of the National Program of Community Integration and Development, involving social and political education for teachers and the domestic student volunteer force. With respect to political participation, it is hypothesized that participation in interest groups which can have political power requires functional literacy and perhaps ability to make basic mathematical calculations. Economic participation is defined as being employed, and it is stated that there is evidence of a relation in Colombia between higher employment and a higher educational level (a previous discussion doesn't support this).

The predominance of "traditional academic" tracks which are said to be out of line with manpower needs of the country is identified as the cause of external inefficiency.

The Panama Assessment deals with the question of the relation of education to productivity and economic growth by presenting a very summary picture of distribution of GDP and employment and discussing marginal returns to education, needs for educated manpower, and increases in occupational productivity. Agriculture is shown as being almost 1/3 of total employment but only about 1/6 of total GDP and its share of both is said to be falling. .

Data on salaries in non-agricultural employment are presented which show increased salaries associated with higher levels of education. Benefit/cost ratios of social investments toward completed primary and secondary education are then calculated. The ratios obtained are 10/1 and 5/1, respectively. It is said that if interpreted in the usual way "it is clearly to the economic advantage of Panama to push toward generalized completion of the present primary cycle and to extend universal education at least through the first three years of

the second cycle." It then added that, "The calculated returns must be heavily discounted, however, since much of what they measure must be attributed to differences in ability and socio-economic background rather than to correlated education differentials. Additional caution is warranted under Panamanian conditions, since structural unemployment exists on a moderate scale and a substantial level of underemployment is known or suspected to be present.

Under models of the labor market consistent with these observations, much of the new inflow of education into the labor force could be dissipated in an "upgrading" of jobs (in terms of "expected" or "required" education of applicants) with only minor contributions to economic productivity."

With respect to "needs for educated manpower," data are presented on results of a study which projects "deficits" of manpower at levels of education beyond the primary cycle. It then cites problems with the projections and concludes that "Thus, the relevance of these figures for quantitative educational planning is questionable." It then closes the discussion with the following :

"The general case can be made, however, that many of the additional jobs which employment policies of the Panamanian Government will hopefully generate are likely to demand an education exceeding six grades. In this perspective, the universalization of education to grade 9 can be viewed as a facilitator of the country's transition to full employment. On the other hand, the same looseness cannot be afforded when it comes to developing technical/vocational tracks in the upper-secondary cycle (designated as "Technical-Professional" cycle under the terms of the Reform) and specific programs in the proposed National Polytechnic Institute. This type of education is too expensive for allowing it to be wasted - a situation likely to develop if facilities in one or several technical areas generate graduates in excess of demand. Accordingly, the highest priority should be given in Panama to continued investigation of "manpower-needs" in technical occupations, so that the required planning information is developed early and competently."

"The most promising avenue open to Panamanian education from the standpoint of its economic-development goals may not be the production of more graduates under traditional labels in response to "rate of return" or "need" computations, but rather the general upgrading of school cohorts in terms of their ability to respond effectively to rapidly shifting conditions in the context of occupations and in opportunities for employment. While progress achieved along this path is difficult to measure, there is good reason to believe that the creation of a versatile labor force, aware of its alternatives and freed of occupational prejudice, is a basic ingredient of successful development policies."

"This is one of the justifications for the proposed redefinition of primary education in Panama and the incorporation of the first three years of secondary education into a universal "Basic General" cycle emphasizing exposure of all pupils to vocational activities in a "production" context. It is evident, however, that the logistical problems of developing such a program are enormous. Another priority of planning in Panama is the close analysis of the resources required both within and without the school system to generalize the "production school" approach to all pupils, so as to ensure that this ambitious experiment does not founder under its own weight."

Statements are then made to the effect that since agriculture has a large volume of self-employment, the lowest education, and the lowest productivity per worker, "the potential effects on agricultural productivity of extended school attendance with a well designed vocational component is of a high order." The need for a reinforced body of agricultural professionals to provide technical guidance is then referred to.

The relation of education and social distribution is discussed in terms of the impact of education on the future distribution of incomes, on social mobility, and on the social role of women.

Discussion of the first consists of three paragraphs, the first of which concludes that based on available international evidence and with some important exceptions, it is doubtful that education per se can do much to reduce the income disparities presently observed in Panamanian society. In all sectors where salaried employment dominates, the hierarchy of occupations and recommendations is largely determined by considerations of organizational efficiency, and is not sensitive to shifts in the general level of education.

The discussion adds that a potential for narrowing income distribution through education does exist for the "marginalized" portion of the labor force and the self-employed are said to be able to "translate" additional education directly into increments of productivity and income without displacing other labor force members, and thus to reduce the overall disparity of incomes.

While the assessment does not deal specifically with the question of balance in the educational distribution, it does identify "the rural poor" as a "target group," provides data on the extent and distribution of that poverty, cites

problems of providing the rural poor with education, and identifies problems of rural development. It concludes that the internal efficiency of education is higher in urban than in rural areas and cites incomplete schools and the locations of schools as being an "other factor" contribution to external inefficiency. It argues, however, that the increased education must be such that it increases agricultural productivity. If it does not, the effect is only to improve the competitiveness of rural workers in urban labor markets and to accelerate their migration to cities where they simply displace other marginal earners. No analysis, however, or data are presented to show that education can in fact be translated directly into increased agricultural productivity. Neither is there any indication of whether such results are likely to be significant enough to have any appreciable effect on the structure of income distribution.

The Brazil Sector Assessment documents do not contain any specific "external efficiency" analysis. In connection with a discussion of illiteracy it is stated that "the relationship between literacy level, a high level of economic development and a concentration of population in cities is visible." What is considered cause and what is considered effect is not indicated. It is, however, further stated "the seriousness of this problem (illiteracy) for a nation moving toward industrial development and also attempting to operate a democratic society...is hard to overestimate." There are also other statements such as that education expenditures were increasing in real terms thus "demonstrating the country's recognition that the investment in education is a vital input for economic development;" that school enrollment has increased with a resulting "democratization of opportunity;" that the attempt to apply "space age technology" to education is a "healthy sign that Brazil aspires to the advantages of the latest educational technology to take both its economy and the development of human resources out of the shackles of underdevelopment and into an age of modernity;" and "the focus (of the educational program) on the objective of using all resources invested in education...so as to maximize the quality of the development of the individual and the relevance of education to the development of the nation;" that the existing "academic curriculum is

inappropriate to ensuring industrial manpower needs;" and that "elite spokesmen in the planning group continue to advance the strategy that (among other things) the curriculum must be 'modernized' so that graduates possess the 'vital skills' needed by the economy." While this is far from analysis of the relation between education and economic and other social goals, the underlying assumptions as to the existence and nature of such relationships are clear.

### Planning, Management, and Administration

Little is said in the Colombia Sector Assessment Paper about the relation to sector problems of planning, management, and administration except to identify inadequacies as a problem and to state that problems arise from inefficient organization and procedures, lack of sufficiently trained personnel, and lack of coordination among the various leaders of government. Lack of adequate data gathering is also identified as a problem.

The Panama Sector Assessment identifies deficiencies in management and administration as a factor in internal system inefficiency and again discusses it under "Other Constraints." It is somewhat unspecific as to deficiencies but does identify difficulties in communications, excessive centralization, and lack of adequate research and documentation as being problems.

The Brazil sector analysis documents do not contain a single, integrated discussion of problems of management and administration in the sector. The discussions of the primary and the secondary level indicate a need for "strengthening" administration, supervision, and leadership at the school level. Difficulties in the collection, analysis, and distribution of statistical information are also identified, as were inadequate planning and research and lack of such capabilities.

### Financing

The sector analysis documents for all three countries contain similar data on educational financing, and all three describe the structure and

sources of public education financing. Difficulties of obtaining complete and accurate data as a result of complex and multiple governmental structures and levels and multiple sources of financing were noted in the case of Brazil and Colombia. Data are presented as to (a) absolute amounts of expenditure on education by year over various periods and projections for two of three years and annual rates of increase; (b) trends in education expenditure as a percentage of total governmental expenditure; and (c) trends in educational expenditure as a percentage of GDP. In the case of Brazil and Colombia, data are also provided on central and local government expenditures and as to regional and local distribution of expenditure as related to distribution of population. Data as to central government expenditure by educational level are given, but none of the documents for any of the countries provides information as to total expenditures by educational level.

While such information is provided in considerable detail, the Colombia and Brazil documents make little analysis of it and base no operationally relevant conclusions on it. The Brazil educational expenditures as a percentage of the total central government budget are shown as increasing. The analysis attributes the fact that the federal government's share of total educational expenditure is falling (with that of states remaining relatively stable, and that of municipalities increasing from 5% in 1965 to 14% in 1970) due in large part to the Educational Reform Law which changed the assignment of educational responsibility and tax allocations. The Colombia Paper concludes that central government is "becoming dominant" in the financing of education in Colombia, that while some unevenness is shown, the distribution by area is not "too onerous" in relation to the distribution of population, but that variation in distribution as between urban and rural areas within the regions are "extreme."

The Colombia Sector Analysis Paper lists the distribution of education as between rural and urban areas as a major problem. It says that "the imbalance between the availability and quality of education in rural and urban areas is the most obvious problem of Colombian education." It then cites facts as to much higher "wastage rate" (drop-outs, repeaters, etc.) in

rural than in urban areas. It says that, in addition to external factors, this condition results from incomplete schools, inadequate facilities, poorly trained teachers, and lack of learning materials. It concludes that these factors are the result of insufficient availability of financial resources.

No conclusions are drawn from the data on distribution by region and state for Brazil. Data for Brazil on the general rates of growth of educational expenditure by selected states show enormous variations (ranging from a low of 1.6% to a high of 32.0%).

The Panama Sector Assessment, on the other hand, does examine the extent to which proposed total investment in education will (a) force an "excessively sharp" reallocation of resources within the economy and (b) "bring the percentage of GDP allocated to education beyond the maximum suggested by international norms." The conclusion is that expenditures, excluding externally financed local costs, will remain at a level of about 5% of GDP through 1969 and thus no "reallocation shock" is anticipated and that the percentage of GDP absorbed by education, "While on the high side for Panama's development stage," will not be raised further. It then adds, however, that the result would be different if expenditures financed by external loans and counterpart funds were included in the analysis. It is said that under those circumstances (that is, if it were required to finance the program with its own resources), "the resulting half-point increase in percentage of GDP going to education (and an increase of over 10% in educational expenditures) would result in a significant jolt and push Panama's resource allocation further out of line with international norms" and that "since the import component of the assistance is substantial, an additional drain on the country's balance of payments would result."

Both the Colombia and the Panama analyses present data on expenditures by object (personnel, materials, supplies, etc.) and conclude that these allocations clearly show under-expenditure on non-personnel items which is

**suggestive of ineffective teaching methods.**

Projections are made of percentages of investment going to basic education, secondary education, and higher education in Colombia. The paper concludes that the proportions of projected investments "are clearly geared to the principal directions of the GOC educational strategy ", with the possible exception of higher education which may be getting a little more than necessary. This conclusion, however, really only says that the larger amounts of money are going to the principal programs. There is no analysis to determine whether the amounts allocated are in reasonable relation to estimated costs in each area nor whether they represent a reasonable allocation and priority from an educational perspective. It is also concluded that "the sharp rise in amounts to be invested in teacher education and training is a clear indication of the GOC's recognition of the critical nature of a key problem in Colombian education." There is no analysis of whether the amounts provided are enough, too little, or too much in relation to projected teacher training costs and to the needs of other programs.

The Colombia and Panama documents present information with respect to external financing. It is indicated that in the case of Colombia the GOC had adopted a policy that not more than 45% of any educational investment program or of total investment would be financed from external sources. Information is then provided of projected investment by source, but not by program. No analysis is made of the financial or program implications of such a policy, of whether it is likely to be attainable, or whether what appears to be heavy dependence on external financing is wise or unwise in terms of the anticipated capabilities of the Colombian internal fiscal system and of continuity in the education program. The analysis made in the Panama Assessment has been discussed above.

### Cost Alternatives

The treatment of costs varies among the documents for the three countries. One common characteristic, however, is that it is related almost entirely to the question of its impact on total sector budget expenditures and the ability to finance the program.

In general costs are given little consideration in the Brazil sector analysis documents. The 1972 document, for example, provides a table showing public costs (current, capital, and total) at the primary level in six states for a single year (1968); data on average per-pupil costs at the secondary level in 1967 with a break between public and private schools and between current, capital, and total costs; and data on average per-student costs in higher education in 1961 and 1964-65 and relative costs for various courses of instruction. No significance is attached to the data and no conclusions are drawn.

One exception to this generalization is the discussion of "Education Development Strategy" which appears in the 1969 Sector Analysis. Here projections are made of per-pupil costs and level of education by year through 1975. Projections are made on the basis of then current costs without adjustment for any changes resulting from the proposed program. Projections of enrollment on various assumptions are then made, and finally projections of educational expenditure are made on the assumption that such expenditure will level off at 4.5% of GNP in 1974, which is said to be an admittedly high percentage, well above the average for most countries at similar stages of economic growth. It is concluded that, even under that projection, the rate of increase in spending on education will slow down considerably over the 1968-1975 period with the result that the rate of expansion will have to be modest. It is said that a continuation of previous high rates of increase in enrollment would put an enormous strain on government budgets, probably require cutbacks in other strategic development areas which the GOB will not be prepared or able to make, and seriously sacrifice quality for quantity in the educational system. The projection of per-pupil costs is also used to make alternative projections of possible enrollments by school level. The one which shows a higher rate of expansion at the secondary level is said to be preferable. Beyond this no conclusions are drawn as to the significance of the analysis for educational policy in general.

The Colombia Sector Analysis Paper identifies high costs as a major problem of the sector. It says that "inadequacy of resources" is "the primary limitation on the rate of change in the sector" and that the GOC recognizes that the needs and demands for education exceed its financial

and administrative resources. However, it presents no data which show the dimensions of the problem and makes no analysis of how it might be dealt with. Data are presented on cost-per-student by object of expenditure at the primary level in 1971. It is concluded that the cost for teachers is low and that for materials "pitifully low." No conclusions as to significance are drawn. Average per-pupil costs in three types of schools at the secondary level in 1970 were also presented, but no conclusions are drawn. There is a discussion of financing the education plan which is entirely in macro terms - educational investment levels, education's share of the budget, and education investment budgets by program and year. Costs per se, however, do not enter into the analysis and what the implications of costs are for educational system size, operations, and results is not analyzed.

The Panama Sector Assessment makes no attempt to present a detailed picture of educational costs in Panama. Data are presented to show that non-personnel costs are a very low percentage of total costs. Per-pupil costs for primary and secondary education are used, along with projections of enrollment, as a basis for estimating the total costs of the proposed program. Adjustments for increased program costs are made by making an allowance for higher teacher salaries and increased costs of better trained teachers. A flat amount is added for teacher training costs. Allowance for increased costs of curriculum changes is provided by increasing non-personnel costs as percent of personnel costs to give a 10% - 90% division. The resulting total cost is then compared with possible educational budgets as a percent of the total budget and of GNP.

#### B. Analysis in the Capital Assistance Papers

Analytical material is included in the CAPs for all loans as well as in the various sector analysis documents. Such material may be the same as or different from that in the sector analysis documents. In some cases the analysis is more specific and in general it is more related to the educational programs proposed for loan support. Data and analysis in the first three CAPs for Colombia and that for the first Panama loan are particularly significant for this study since those CAPs preceded the sector analysis documents.

## Colombia CAPs

The CAPs for the first two education sector loans in Colombia describe the structure and composition of the education system, identify problems and deficiencies, and describe the GOC educational strategy in basically the same terms as does the Sector Analysis Paper. They also are based on the same assumptions as to educational roles and the relation of education to development which are involved in the Paper. This is significant in that the CAPs and both loans preceded preparation of the Sector Analysis Paper by about three and two years, respectively.

The CAP for the third loan is quite similar in coverage, data, conclusions, and language to the Sector Analysis Paper even though the CAP was dated about a year earlier than the Paper. While the material in it is quite disorganized and repetitive, it provides essentially the same information and conclusions as does the Paper. It discusses the role, structure, and functioning of the educational system and the various educational levels (primary, secondary, etc.). In connection with the role of education, the discussion, similar to that in the first two CAPs, is in terms of the relation of education to economic and social development. Relationships are asserted to exist in the areas of economic growth, income distribution, social mobility, political, social, and economic participation. While there are differences in detail and some material is included in one which is not included in the other, the discussion is largely the same as that included in the Sector Analysis Paper. In fact, the language in the two is, in many cases, identical and either one has been drawn from the other or both have been drawn from a common source.

Like the Sector Analysis Paper, the third CAP contains information on educational expenditures by levels of government, by region and by agency; population, school enrollment, and educational expenditure by region; and expenditures by type. There is also a discussion of "Internal Efficiency" which parallels and is more complete than that in the Paper.

The CAP for the fourth loan also contains material similar to that in the Sector Analysis Paper. It, however, also contains a section on "Present Status of Colombia's Economy" dealing with the rate of increase in GNP and a balance of payments surplus. It says that fiscal revenues in 1971 were above projections. Investment expenditures were also above projections and operating expenditures were below. Domestic credit revenue and drawing on foreign assistance loans were below estimates. It states that, "The overall good fiscal results for the year were made possible by maintaining...

rather than reducing as planned the GOC floating debt, and by some additional central bank borrowing." Prices are said to have increased by 10-15%, depending on the index used; a higher rate of inflation than in previous years. The only causes identified are shortages due to the weather and a modification of the petroleum exchange rate. Whether this is good fiscal or economic performance seems to be open to question.

The CAP for Loan V again lists four principal types of distortion in the system; (a) high desertion and failure rates; (b) obsolescence or irrelevance of traditional curricula; (c) low internal and external efficiency; and (d) great inequality of opportunity as between urban and rural areas and high and low income groups, without discussing what changes might have occurred in the several preceding program years.

A section on "Present Status of Colombian Economy" says that real growth in GNP was good in 1973 and is expected to continue to be so if inflation can be controlled. Data are presented on consumer price increases. It is further indicated that the growth of government revenues slowed and that "the perennial billion peso gap between revenues and desirable investment levels once again faces Colombian planners in 1974, if not to nearly as great an extent as in 1973." It is said that with the help of external borrowing public investment of the national government "rose impressively" by 28%. Tax measures, tax collection efforts, and restraint in operating expenses are said to have proved insufficient to produce the revenues needed "to meet growing requirements of national development." As a result of all this, it is indicated that the administration is taking a series of measures, including "monetary and fiscal measures of a more traditional character" to deal with the problems of inflation. However, no analysis is made of the implications of all this for the level of activity in the education sector or of the possible inflationary implications of sector loans and other foreign borrowing for budget support. Instead it is stated that, "It seems fair to conclude that Colombia's economic programs and prospects, on balance, even taking into account current strong inflationary pressures, provide a basis for cautious optimism. Uncontrolled, sharp inflation, natural disaster, or political difficulties could change the perspective in Colombia or elsewhere. However, the principal factors determinant of sustained growth (unidentified) - and which are not likely to suffer major reversal - generally are positive."

## Panama CAPs

The CAP for the first Panama loan has much in common with the Sector Assessment prepared in anticipation of a second loan. It gives a description of the structure of the education system similar to that in the later Sector Assessment and presents similar data with respect to enrollment, facilities, teachers, and educational expenditures. It also contains a discussion of the growth of the economy and its distribution by sector which in its essential aspects differs little from the discussion in the Assessment. Similar data with respect to wages received by educational level are also contained in both documents. The CAP, however, fails to indicate the limitations of conclusions based on such data as well as the Assessment does. Problems and deficiencies are discussed in somewhat different terms, but both make reference to the need for "quality and relevance," discuss the problems of drop-outs and repeaters, and identify the inadequacy of facilities as being a serious problem. On the other hand, the CAP does not attempt to relate educational goals and objectives to national goals in the specific way that the Assessment does. It also does not organize the material in an analytical framework as does the Assessment and, at least by implication, reaches somewhat different conclusions as to the relation between education and income distribution. It contains no specific analysis of the relation of education to increased productivity as does the Assessment. Finally, its financial analysis is limited to an appraisal of the ability of the GOP to finance the specific program being assisted, whereas the Assessment provides some analysis of possible economic implications of anticipated requirements for total sector expenditures.

The CAP for the proposed second loan relies heavily on the Sector Assessment. It describes the structure of the system and repeats the point that the system has emphasized (increased enrollment) and has thereby been successful in meeting the problem of access to education, but insufficient attention has been given to the rural population or to the "relevance" of the education provided. Results of these deficiencies are said to be high repeater, drop-out, and failure rates. How these results follow from the alleged deficiencies or what the evidence is that they do, is not discussed.

From this it concludes that the system is not responding to needs for "equity, social justice, skill training, and economic efficiency." It adds that the 1974 Reform Program and the Ministry of Education "are now committed to restructuring programs to be responsive to the kind of training Panama needs for its population," including an emphasis on using education as a means of accomplishing "development objectives" and bringing about social integration.

Alleviation of inequalities in income and employment distribution and reduction in migration are also cited as expected project benefits. A 1972 study is cited as showing that there is an unequal distribution of income and "that a major income equalizer in government's hands is education." It does not explain how the study supports the latter conclusion. Similarly, a 1972 Harberger study on employment is cited as pointing out that the average earning potential of persons with 12 years of schooling is 4 times that of a person with 0-5 years. How this relates changes in the education program to changes in the structure of income distribution is not discussed. There is also no reference to the Sector Assessment's conclusion that the program will not generally affect income-distribution, nor to a similar discussion in the section in the CAP on "External Efficiency."

AID assistance strategy is to "continue and in early FY 1976 (July 1975) expand AID financial and technical support to MOE educational reform program...." It is said that such a strategy must be viewed in terms of support of a larger GOP effort to modernize, restructure, and re-orient educational programs at all levels within the formal as well as non-formal education system. The only other efforts mentioned, however, are IDP assisted programs in construction of vocational schools and basic cycle schools and UNDP/UNESCO assistance to the Central American Institute for the Administration and Supervision of Education.

An "Economic Analysis" section discusses internal and external efficiency in the same terms as does the Sector Assessment. The CAP treatment does, however, attempt to relate specific program elements to increased internal efficiency by laying out assumptions as follows:

1. Increased "relevance" of the curriculum to student needs for occupational training will bring about a major improvement in student motivation with a consequent increase in retention and promotion rates;
2. Improved teaching techniques and superior teaching materials are likely to stimulate student interest and the ability of the system to impart knowledge;
3. Improved coordination of curriculum from grade to grade and between different level schools will serve to lessen repetition and desertion rates;
4. Decentralization and organizationally superior administration will permit more efficient application of resources with greater cost effectiveness;
5. Improved accessibility of schools, especially in rural areas, will improve attendance and retention rates;
6. Higher rates of utilization of personnel through double sessions, year-round schools, higher pupil/teacher ratios, etc., will reduce unit costs;
7. A more cost-effective pupil/teacher ratio will "permit a substantial increase in internal efficiency";
8. The production output of the schools will pay a portion of their operating costs;
9. The community orientation of the schools will induce community assistance in both construction and maintenance thereby reducing costs;
10. "Rationalization" of textbook utilization policies should result in important financial savings for students thereby increasing their ability to remain in and progress through school, and
11. Better funding levels for necessary school supplies will relieve a portion of the cost burden now borne by poor students, enrolling more poor students to partake of education.

A discussion of external efficiency is included which is basically the same as that in the Sector Assessment.

#### Brazil CAPs

The CAP for the first education sector loan contains an annex entitled "Brazil Education Sector Analysis." The organization and content of this

annex is by and large the same as that of the sector analysis documents described above. The sector is defined as the public system with the main emphasis on the secondary level. The same data are presented and the same problems are identified. Deficiencies in the Brazilian education system are identified as an enrollment of only something like one-third of the school-age population, lack of adequate training of a majority of primary and secondary teachers, an outmoded and overcrowded physical plant, insufficient availability of teaching materials, and a curriculum which stresses the academic when economic development needs require more preparation in the applied arts. There is, however, little or no analysis of the causes of these deficiencies. The paper consists largely of a description of the organization and structure of the system, of the nature of the education provided, of the size of the system, and of the problems in it.

In addition to the "Sector Analysis" annex, the CAP contains some analyses more directly related to the loan. First, there is a discussion of the reasons for putting primary emphasis on secondary education, for the selection of priority areas within secondary education, and for selection of specific projects. Generally, the rationale was that secondary education was the main source for trained manpower, had been least amenable to improvement in the past, and had serious problems requiring attention (the same as those identified in the Sector Analysis). Selection of the ginasio as the priority area in the secondary system was based on the fact that it was the largest element in the system, was able to accept only about 46% of applicants, had a high loss of enrollment, and the multipurpose ginasio concept had been accepted by the GOB. The program content was said to be based on the system relationships among enrollments, facilities, staff, and curriculum.

There was an analysis of the cost of the program for the period of the loan and of the ways in which the cost would be met. The cost projections were based on detailed estimates prepared by the states which were reviewed by the MEC and AID. Provision was made for cost escalation and

contingencies. Revenue projections were made by state and source. They were related to past collections and commitments required under the sector loan. No analysis was made, however, of the possible cost of extending the program throughout the system and of the feasibility of covering such costs. Similarly no comparative cost analyses were made; e.g., as between the comprehensive ginasio and other approaches to secondary education, including a better supplied and equipped, more traditional approach.

Finally, the CAP contains a section headed, "Economic Analysis." This section begins with a discussion of the economic value of education. It says that, while data to verify the facts do not exist, based on studies in the U.S. and other countries, there is every reason to suppose that returns to investment in education in Brazil will be substantial since Brazil can be no different from other countries in this regard. It adds that given the high rate of investment in physical investment as compared with "human investment" in Brazil over the last 20 years, it would be reasonable to expect the relative rate of return for the latter now to be exceptionally high. With respect to the concentration on secondary education, reliance is placed on citation of high rates of return shown by studies in Mexico, Venezuela, Chile, and Colombia.

There is also a discussion of the emphasis on quality improvement as opposed to increased enrollment. It is concluded that "Realistically, the sector loan program will probably not expand enrollments much more rapidly than otherwise would occur" and that:

In short, the educational "payoff" attained by raising the system's average productivity far exceeds what we could achieve by marginal additions to the rate of expansion at constant or declining levels of productivity. The greatest returns to be derived from this program will not be the direct benefits of constructing a specific number of schools, but rather the result of having institutionalized the concept of educational planning and administration, the increased professionalization of the teaching corps, and the increased recognition of the need for continuous adaptation of the educational system to the requirements of a progressive society.

The section also includes a discussion of distribution of benefits. It indicates that educational opportunity is highly correlated with family

income and seems to suggest that program benefits will flow to other than the lowest income levels. With respect to the impact of the program as between rural and urban areas, it is indicated that the size of the schools, cost effectiveness considerations, and the fact that the program is primarily demonstrational, requiring that it be carried on where it is most visible, all dictate that it be primarily urban.

Finally, there is a discussion of the size of the program. In summary, it is said that the size of the loan was determined by "absorptive capacity," that is, the practical limitations or the ability of the states to use matching funds to administer programs and on the ability of MEC and USAID to prepare programs and monitor their implementation in other states. Inclusion of fewer states would create political problems in view of efforts already undertaken by the four states in preparing programs. It is also said that to do less would "sacrifice important quantitative and qualitative educational goals and would reduce AID's leverage in rationalizing state fiscal efforts in education."

The CAP for the second loan refers to 1970 and earlier versions of the Education Sector Analysis and provides a summary. In discussing the rationale for concentrating on primary-secondary education, the CAP indicates that review of Brazil's educational needs and plans led to the identification of secondary education as the big bottleneck in the system. It then says that the GOB has recognized that the treatment of primary and ginasio education as separate entities "has created serious problems in articulation and has seriously impeded student flow through the system." It was added that the GOB planned to combine the two into a single "fundamental education" unit, and to eliminate the qualifying examination for ginasio entrance. Other material is included which is similar to that in the first CAP.

### C. Other Analyses

AID analysis was not entirely confined to that contained in the formal sector analysis and CAP documents. The files contain various other reports, communications between AID/W and USAIDs, minutes of meetings, and internal memoranda which are analytical in nature. Subject matter areas involved included:(a) the adequacy of proposed methods of program and loan imple-

mentation; (b) the size of the loan proposed; (c) the rationale of the linkages between identified problems and program objectives and activities to be financed; (d) the coverage and adequacy of sector analyses; (e) the soundness and appropriateness of the basic strategy, policy and program content involved in the country program being supported; and (f) individual questions of particular concern to particular offices or persons.

Most analysis outside sector analysis documents and the CAPs was concerned with questions of implementation methods. Generally it involved the raising of questions by AID/W as to the ability of the host country to administer the program to be financed, the nature of the implementation arrangements being proposed, and the extent of AID involvement in program implementation as, for example, the extent of supervision of construction and for AID supervisory review, AID approval of agreements and procedures for release of funds, needs for technical assistance, period of funding, etc.

Questions were raised as to how the amount of proposed loans was arrived at, but we found no evidence of specific analysis leading to determination of the particular amounts.

The question of linkages between identified problems and program objectives and activities was raised in AID/W guidance for preparation of the CAP for the second Brazil loan. It is also implied in various internal critiques of sector analysis documents and the CAPs.

Various critiques of sector analysis documents and CAPs raise questions in most of the areas indicated above. The following examples in the case of the Colombia loans illustrate the type of questions raised.

In a memorandum of May 1970 from the Sector Analysis Group, AID/W, to the Chief of Education in the USAID, significant questions are raised concerning the preliminary draft of the 1970 loan paper. The basic point made in the memorandum is that the analysis in the paper does not provide a satisfactory basis for the strategy. The more important specific points made include the following:

- The proposed strategy of expansion and improvement at all levels needs to be quantified, costed, and compared with estimated future resources;

- The analysis fails to differentiate problems in accordance with their importance and fails to take account of the fact that resources are limited;
- The analysis does not examine the basic issue of distribution of funds, deliberate the priority and distribution of funds among various educational levles, nor does it provide justification for the proposed distribution of funds among the levels;
- There is a need for data on system outputs rather than providing information only on inputs;
- There is a need for identification of and judgments as to strengths and weaknesses of the various sector organizations. No data are provided on the needs for management improvement nor of what progress has been made. Technical assistance requirements are thus not identified. Analysis in this area is important because changing management capacity is essential to changing the system. Construction of classrooms will not reform the system;
- "Qualitative improvements" are too vaguely defined to specify the development of programs needed for their accomplishment; and
- Innovations and experimentation aimed at reducing unit costs are not adequately treated and insufficient funds (only \$90,000) are allocated for such activities.

A quite good critique of the Sector Analysis Paper is contained in a paper entitled AID/W Comments and Suggestions Concerning the 1972 Colombian Sector Analysis (an undated and otherwise unidentified paper). Major points made in that document include the following:

- The point is made that the finding of a relation between education and income distribution and employment (as the paper does) is not enough. In order to make resource allocation decisions, one needs to know what levels and types of education have the greatest effect;
- It is indicated that cost data and analysis is central to the determination of the feasibility of programs and a lack of such data and analysis was stated to be a major deficiency of the Paper;

- It was suggested that analysis was needed of what appeared to be high administrative costs of the primary school system and the comparative cost of the INEM and other secondary schools with the suggestion that the cost of INEM schools might be beyond the ability of the GOC to support. An analysis of the SENA operation was also suggested as being needed to determine the possibility of cost reductions and of using SENA as an alternative to vocational schools. Analysis of the costs of decentralized agencies was also suggested. It was also indicated that revenue needs should be addressed;
- The lack of quantitative data were identified as being such as to make it impossible to appraise the feasibility of the GOC strategy, e.g., the financial feasibility of nine years of basic education; what enrollment was contemplated at what cost; how many classrooms were needed, built, and remained to be built; was a program for training 208 Ph.D.s feasible? Conversely, it was indicated that far too much detail was included which was not relatable to analysis or argument;
- The lack of quantified targets was identified as a shortcoming. It was suggested that even if quantitative targets were not established, it might be well to determine the cost of hypothetical targets to determine what was possible of accomplishment;
- The mixed discussion of outputs and inputs should be separated. Further, the magnitude and cause of problems needed identification. Some assumptions as to relationships seemed questionable and needed re-examination, e.g., that the quality of teaching affects drop-out rates;
- If social demand was the determining motivation of the program, appraisal of the strategy should show how it responded to that demand rather than its relation to economic development;
- Attention was given to diagnosis but not to analysis of strategy alternatives;
- The possibility of developing an optimum strategy and using assistance as a means of moving GOC strategy closer to the optimum should be considered;
- There was little discussion and analysis of conclusions on which the study seemed doubtful. Little attention was given to the use of experimentation. It was not indicated what had happened in the several areas and, if nothing, why not. Neither was there any consideration of how change could be promoted more effectively;

- There was no indication of how GOC decisions were made;
- The paper failed to deal with the question of the uses of and the rationale for aid; and
- There was no indication of how the document could be used. If, as appeared to be the case, the GOC had already determined what its problems were and solutions were already being worked out, there was a question as to the uses to which the document could be put.

Specific questions raised in other internal documents include the following:

1. In the case of Colombia, what would be accomplished by a sector loan which could not just as well be accomplished through program loans with allocation of counterpart funds to sector programs?
2. Why were sector rather than project loans being proposed?
3. Whether a strategy of supporting all activity in the sector in the case of Colombia was preferable to selection of key, critical elements for support.
4. Whether there was a need for some cut-off date for sector support rather than leaving the commitment of support in effect open-ended.
5. The possibility of causing financial and economic problems by attempting under a sector approach to increase the relative shares of a number of sectors in the total budget.
6. Whether government fiscal performance and self-help measures were adequate, and the amount of foreign borrowing in support of the sector was wise.
7. Whether high costs raised questions as to the soundness of the type of program adopted and supported.

The question of the relation of costs to the appropriateness of programs adopted is raised in other internal documents. For example, a series of tables and comments entitled "Background for an Education Sector Loan - Colombia" (undated and otherwise unidentified but apparently prepared before authorization of the first Colombia education sector loan) emphasize the fact of high per-pupil costs and concludes that "New combinations of factors leading to reduced cost per-pupil are absolutely necessary if satisfactory progress is to be made." In the same vein an

internal memorandum of May 1, 1972, commenting on the proposed fourth Colombia loan points out that the annual per-pupil costs of the multi-purpose "INEM" school are high unless there are internal efficiencies and says that while lip service is given to the necessity for reducing costs in fact nothing is being done to achieve it.

A number of questions and comments cited above have implications for analysis of the soundness and appropriateness of the basic strategy, policy and content of the country programs supported by the sector loans. In addition there are two study reports in the file which also have such implications. One is A Study of Primary School Efficiency in Colombia, March 1971, by Robert S. Drysdale. This study concludes that "Primary education cannot be developed and extended in an efficient manner independently of other programs of social and economic development in a region." Based on an analysis of factors affecting efficiency, it says that external factors of the level of living of parents and the health of students are the most important elements in school retention rates with the availability of school facilities and teacher quality being important internal factors.

The other is a paper, The Brazilian Education System, by Francine and Richard Weischoff and Judith M. Lohman, which was prepared after the first but before the second loan. It includes a number of conclusions and implications pertinent to an analysis of the soundness and appropriateness of the basic program supported by the Brazil sector loans. Questions are raised as to possible effects of probable high costs of the polivalente school on the ability to increase enrollments, its suitability as a model for rural areas, whether the highest returns to public school education come from the acquisition of general verbal and mathematical skills rather than from the acquisition of familiarity with a particular skill, and whether there is a need to vary the level of education to be provided in accordance with variations in regional conditions and circumstances.

We did not find any evidence of use of the first study. The Brazil USAID did examine the second study and apparently rejected its implications and an internal memorandum commenting on the report was prepared. The following are indicative of the major points of difference:

1. Strong disagreement with the report conclusion that higher pre-student cost means fewer children educated and that as a result the polivalente school approach will reduce enrollment over what it could otherwise have been. It is agreed that this would be true only if a fixed level of appropriations or a "firm lid" on educational expenditures is assumed. It is further argued that the polivalente approach is not more expensive than others and the rhetorical question is asked whether an appropriate level of educational quality is "one which leaves Brazil falling further and further behind."
2. The conclusion of other studies that the highest returns go to acquisition of general verbal and mathematical skills "completely ignores Brazilian tradition."; and
3. The polivalente school is in fact more the right kind of school for the rural area than the "ineffective" agricultural ginasio and that "someone ought to figure the cost of equipping a small agricultural ginasio plus the operating costs and see which is more expensive." The question is then asked, "Who would make the assumption that rural areas will get secondary schools with or without the program?"

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