

Strengthening Education Research Capacity:
The Colombian Case, 1960-1981

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INTRODUCTION

The general purpose of this paper can be summarized as follows: to understand better the process, and the factors affecting it, of growth and consolidation of a national capacity to carry out research on education in Colombia. We will begin with descriptions of the historical and social context for research in Colombia, the present research climate, the structural geography and the skills and competencies of researchers, the organization of research, and the themes and the methodological approaches used. We will then examine in more detail four "research strategies" followed during the triennium of 1979-1981. The four strategies differ in terms of their organizational arrangements, leadership, funding patterns, thematic and methodological emphases, and relationships to policy. Finally, we will offer conclusions in the form of hypotheses and questions about alternative strategies and methods that might be adopted to strengthen the educational research capacity, based on the Colombian example.

In approaching our topic, we view the research process as a social process encompassing all phases of research activity from the birth of an idea to the use of research. Each major phase -- conception, design, conduct, dissemination and use -- is influenced by the social identity of, and the relationships among people carrying out and using research. Further, the process and outcomes of research are conditioned by the way in which research is organized and by the larger social and political circumstances within which it is embedded. We take the research process (and the development of research capacities) to be non-linear. We will

speak of research capacities rather than a research capacity, and will distinguish among types of research.¹

Our information is drawn from previous studies, from a small seminar,² and from a review of research completed or begun between 1979 and 1981.

The previous works upon which we have drawn most heavily are:

- José Bernardo Toro and Agustín Lombana, "El Fenómeno de la investigación en Colombia (1960-1978)," Bogotá, FEPEC-CEDEN 1978, which analyzes characteristics of 238 works of educational research carried out over the 18-year period, 1960-78;
- COLCIENCIAS, La investigación en la universidad Colombiana," Bogotá, 1978, which compares university-based research in 1972 and 1978;
- Clemencia Chiappe, "Anotaciones sobre la situación de las ciencias sociales en Colombia," Bogotá, May, 1979, a paper prepared for a meeting of CLACSO, 30-31 May, 1979, describing and analyzing the main thematic disciplinary, and institutional tendencies in Colombian social science in the 1970s; and
- José Bernardo Toro, Rafael Campo, and Robert Myers, "Educational Research Capacity: the Colombian Case," a forerunner of this paper which describes the Colombian educational research scene in 1979.

Our own review of educational research was based on conversations with researchers, visits to institutions, funders, and the Ministry of education, and an examination of periodicals. We identified 102 research works or projects completed or begun during the 1979-81 period. These were classified by institution, discipline and educational level

¹We have drawn directly upon material from the Education Research Review and Advisory Group (RRAG) in stating this position (see RRAG, "Progress Report," Ottawa, The International Development Research Centre, November, 1979).

²We would like to thank particularly Alvaro Pantoja, Agustín Lombana, and Gonzalo Cataño for their comments and suggestions.

of the researcher(s), source of funding, and the type of dissemination given research results. The review complements that for the 1960-78 period by Toro and Lombana. Finally, we obtained more detailed information about two institutions -- the National Pedagogical University and the Planning Office in the Ministry of Education -- and two research networks, COLCIENCIAS and the Interinstitutional Committee for Educational Research. The purpose of these case studies was to determine the impact of the respective strategies on climate, skills, themes, and institutionalization of educational research.

Background³

Colombia, a country of 27,000,000 people, shares with other Latin American nations a Spanish colonial legacy and more than a century and one-half of political independence. That legacy is evident in the stratified, hierarchical social structure of Colombia dominated by Spanish speakers of European heritage. It is evident in the prominent and enduring influence of the Roman Catholic Church. And it is evident in an "essayist" intellectual tradition. It places Colombia squarely within the Western world. Over time, and certainly within the last 50 years, that Western view has been influenced more and more by the United States. Colombia does most of its trading with the United States. Many of the present Colombian elite received their education there and many Colombians have migrated permanently to the U.S. A large share of

³Space limitations preclude anything but the most superficial treatments.

Colombian technology originates in the United States. Within the Western tradition, private enterprise has flourished, and the State has not been a major actor in the business world.

The People of Colombia are far from homogeneous. Over the last four centuries, most of the originally large Indian population has been incorporated into the dominant Spanish culture, creating a large mestizo group. Still, many indigenous groups remain on Colombia's geographic and social margins. Most important, approximately 30 percent of Colombia's population is black (or mulatto), concentrated along the coasts and in valleys where sugar cane is grown.

The rugged and diverse geography of Colombia has fostered strong regionalism. Three branches of the towering Andes mountains cut through the country. Colombia boasts tropical coastlines on both the Atlantic and Pacific oceans. Vast tracts of interior flat land are drained by the Amazon and Orinoco rivers. In the geographically fractured country, 20 major cities have grown up and local loyalties have dominated. Only in the last two decades does power seem to have shifted toward the capital city, Bogota. During that time, communications have improved and Bogota has grown five-fold to a city of approximately 5 million. Migration has helped swell other cities as well, changing Colombia from a predominantly rural to a predominantly urban country.

Ethnic, social, geographic, and rural/urban differences are reflected in huge educational and economic disparities. The black population along Colombia's Pacific coast, for instance, almost totally cut off from the rest of the country, is extremely poor, uneducated, generally

malnourished, and beset by malaria. At the center in Bogota's expensive and elegant suburbs, a healthy population, educated in elite private schools, lives in spacious comfort. Contrasts have increased despite economic growth at an average of almost 6 percent (GDP) per year during the 1960s and 1970s. The per capita income for all of Colombia was over \$900 in 1980. Nor has massive educational expansion reduced the contrasts.

A federal system of government, modeled on that of the United States, attempts to cope with regionalism and diversity but is overlaid with deeply-rooted clientelism. Politics (and other institutions) build on strong personal loyalties. A period of widespread violence in Colombia following World War II, and feeding upon political, regional, and social differences, forced a political modification in 1958. The two leading parties declared a "United Front." They agreed to alternate periods of control and to balance government appointments. "Politics of compromise"⁴ among members of an established and expanding elite, together with a reasonably dynamic economy, helped the country maintain a relatively open political environment during the 1960s and 1970s.

In Colombia, as in most Latin American countries, education is highly valued -- at least in urban areas. It is perceived by the majority (for most, incorrectly) as a major channel for social and economic mobility. It is perceived by governments as a source of needed manpower. Approximately 5 percent of the Gross Domestic Product is spent for public

⁴For a recent treatment of the theme and description of modern Colombia, see R. Albert Berry, Ronald Hellman, and Mauricio Solaun, Politics of Compromise, New Brunswick, N.J.: Transaction Books, 1980

and private education. The percentage of the national budget allocated to education has hovered around 20 percent of late and by law, the combined spending for health and education is supposed to account for between 15 and 25 percent of the budget.⁵

In the past 20 years, primary school enrollment has increased annually at an average rate of more than five percent. Most Colombian children (over 80 percent) now have access to primary schools at the entry age of 7 (as compared with only about 60 percent in 1960). In rural areas, however, access lags: only two-thirds of the eligible population are enrolled. Moreover, repetition averages about 15 percent countrywide. The rate of primary school completion remains low, particularly in rural areas where only 40 percent of the schools contain all five grades. Thus, increasing access in rural areas and improving the internal efficiency and quality throughout the system are key tasks.

The enrollment ratio at the secondary level is now about 40 percent and at the tertiary, about 8 percent. Both levels have expanded rapidly in the last 15-20 years -- to the point where, as in so many other places, educational qualifications are out-running available jobs. Secondary and tertiary education are concentrated in urban centers. At both levels, more than half of the students enrolled are in private schools. Among the private schools, many of which are church-related, are found not only the most expensive schools, but those reputed to be

⁵The statistics used here have been taken from data obtained from the Ministry of Education.

best, attended by children from the middle and upper classes. The dual public/private system, which reinforces social differences even while occasionally assisting mobility, is firmly entrenched.

Within the Colombian educational system, emphasis has been placed, at all levels, upon imparting knowledge (as contrasted with aiding the discovery of knowledge). At lower levels of the educational system that propensity translates into a curriculum stressing memorization. At university levels a parallel phenomenon is present in the continued dependence on "notes" published by professors, in predominance of the lecture method, and in the relatively minor involvement by professors themselves in research. The teacher, particularly up to the 1960s, has been viewed more as coach than scientist or specialist and has been more concerned with helping form personality, transmit moral values, and impart facts than with promoting independent inquiry.

In Colombia, out-of-school educational opportunities are widely available. Radio schools of the church-related Popular Action Organization (ACPO) reach deeply into the rural areas. ACPO's success over a period of 40 years may help account for the fact that, despite the low level of primary school completion, literacy in Colombia is relatively high, over 80 percent. A widespread training and apprenticeship program, SENA, reaches several hundred thousand Colombians each year, and is financed by a 2 percent payroll tax. In major cities entrepreneurial educational establishments have proliferated -- for completing a secondary degree, for learning English, or for acquiring a technical or managerial certificate.

The Research Environment and Climate

Inquiry has long been valued in Colombia, particularly in academic circles. That tradition has, however, been largely historical and essayist until recently. Although scholarly in the extreme and often systematic, the forms of inquiry that are most widely accepted in Colombia still approximate more closely philosophy than "science" as it is often defined today. This heritage does not facilitate the application of scientific reasoning to the examination of social problems. Inroads on the dominant research tradition have been made with the increasing "technification" of government bureaucracy, with the return of students abroad -- especially from the United States -- and with nudges from international funders of research. These changes have also helped increase the demand for empirical research.

As will be seen, a significant portion of the research on education in Colombia has been carried out by social scientists applying their methods and theoretical perspectives to education. Within the social sciences, one finds in Colombia two general strands of research running in parallel.⁶ A "reflective," critical strand, building on an "essayist" tradition, has become increasingly associated with conflict analysis, increasing "empirical," and increasingly related to debates grounded in the work of Marx, Gramsci, or the Frankfurt school. European scholars are important interlocutors. This strand is evident, for instance, in

⁶For a much fuller treatment of the social sciences in Colombia, see Clemencia Chiappe, "Anotaciones sobre la situación de las ciencias sociales in Colombia," Colombia, the National Pedagogical University, 1979 (mimeo).

research on the origins and development of capitalist modes of production, or in the examination of education as an agent of underdevelopment. The other strand is heavily empirical, positivistic, survey-oriented, and with strong ties to work done in the United States in the 1960s and 1970s. That tradition is illustrated by household survey work done on Colombian unemployment or relating education to employment.

The more "reflective" research strand is based more often than not in public universities where individual researchers enjoy the modest institutional support their salaries provide, attracting outside funding occasionally, but mostly working on their own. It is noteworthy that this strand has survived ever-present problems of institutional instability and has not depended on high levels of financial support. The "survey" strand tends to be located in private universities and research centers and funded, often by international agencies, through institutional research projects. These trends in the social sciences are mirrored in educational research.

Colombian researchers in the social sciences and education can publish critical as well as technical work. The government monitors work done from the political left and researchers practice some self-censorship. And the potential impact of independent research, critical in tone, is further blunted by absence of what one might label "public opinion," and by the prominence of political concerns in decision-making. It also suffers a certain lack of credibility stemming from the fact that researchers, who are predominantly from elite backgrounds, seem to accept in practice for their own children the established

arrangements, educational and other, they criticize in their research. The Colombian scientific community is not known for open criticism among colleagues. It, too, tends to live by a compromise norm.

Although a tradition of inquiry exists, although demand for technical research has increased, and although a relatively open environment exists, researchers in Colombia must contend with a series of difficulties in order to carry out research. The strong oral tradition, for instance, provides little incentive to publish. Institutional instability hampers continuous research efforts. From a study by COLCIENCIAS⁷ comes the following list of obstacles limiting research in Colombian universities:

a. Financial obstacles:

1. Universities do not give as important a place in their budgets to research as is required.
2. Salary incentives are lacking for professors to carry out research.

b. Institutional obstacles:

1. Teaching is favored over research.
2. The number of teacher-researchers is small.
3. Post-graduate programs do not focus their programs on research.
4. The university lacks mechanisms for promoting and coordinating research.
5. Laboratory facilities are insufficient.
6. Bibliographic sources and documentation are weak.
7. Opportunities to attend scientific meetings are few.

c. Socio-cultural obstacles:

1. The value of research is not properly recognized.
2. Links to the community at large are deficient.

⁷COLCIENCIAS, La investigación en la Universidad Colombiana, Sub-Dirección de Asuntos Científicos y Tecnológicos, Bogotá, 1978.

These affirmations are all the more relevant because they are made by the organization officially charged with bettering science in Colombia. They suggest that research does not yet seem to have become an integral and valued part of the process of social reproduction in Colombia. What has been said in general is even more pertinent within education faculties and teacher training colleges.

The Structural Geography of Educational Research

A centralized, government-guided approach to educational research was pushed very hard in 1968, with the creation of the Colombian Institute for Higher Education (ICFES), the Colombian Fund for Scientific Research and Special Projects (COLCIENCIAS), and the Colombian Pedagogical Institute (ICOLPE). ICOLPE's mandate included responsibility for basic research, designing curricular models, preparing teacher training programs, and gathering information for the Ministry of Education. This diverse mandate and the well-intentioned desire to marry research and practice brought along bureaucratic red tape, political demands, focus on immediate problems, and leadership turnovers, undercutting ICOLPE's research mission, and leading to its early demise in 1976.

The centralized institutional initiatives described followed by one year establishment of the first Colombian post-graduate program in education (at the University of Antioquia). They were accompanied also by sweeping educational reforms. In support of these reforms groups of Colombian educators were sent abroad for advanced study. With this coming together of events in 1968, the volume and sophistication of educational

research grew. The result is evident in Table 1. There is no doubt that government initiatives contributed directly and significantly to this growth, despite the failure of ICOLPE.

Following the ineffective attempt to centralize research, a process of institutional decentralization reasserted itself within government agencies, and among public universities, private universities and private research centers. In the 1960-1978 period, according to Toro and Lombana, approximately 43 percent of the research completed was within governmental agencies (see Table 1). Adding in public universities brings the public sector percentage to 67, leaving only one-third of all education research during the period in private institutions. An unpublished review of education research by COLCIENCIAS staff turned up additional research activity in public universities but that research seemed only infrequently to lead to publication.⁸ In brief, the public sector dominated the production of education research from 1960-1978.

In the 1979-1981 period, the public sector seems to have played a less dominant role in education research (see Table 2). Of the 19 institutions we surveyed in Bogotá that were producing educational research in that period, 13 were located clearly in the private sector, accounting for more than 50 percent of all research.⁹ The Ministry of Education

⁸Personal communication from Alvaro Pantoja

⁹Because our survey was limited to Bogota, our survey is not directly comparable with that of Toro-Lombana. If we added institutions outside Bogota, and if we applied a stricter definition of research, the percentages would change, but not drastically.

continues numerically to dominate research in the public sector.¹⁰

Most Colombian educational research has been carried out in Bogota. Important exceptions exist, particularly in Medellin and Cali, concentrated in the universities or in private institutions.¹¹ As was evident from Table 1, regional, departmental, and municipal levels of government do not participate in research. Whether or not the trend is toward or away from greater concentration in Bogota is not clear from our data.

Institutional differentiation normally accompanies differentiation in functions, work tasks and methods and vice versa. Basic information-collecting tasks, some evaluation, and diagnostic studies related to planning are found in the public sector. Such "basic" research as there is tends to be found in the private sector or in universities. We will have more to say below about this shift and its implications.

Research Skills and Capabilities

Colombia can boast considerable education research talent, some "certified," some "uncertified," but extremely competent. An informal sounding produced a list of 45 individuals in Colombia at the "all-but-dissertation," Ph.D, or M.D. level, who were involved in, or had been

¹⁰At this point we have not distinguished research by purpose or method or "quality." More analytical, sophisticated research is seldom located in the Ministry.

¹¹In Medellin, for instance, the public University of Antioquia and the private institutions, CINDE and ANIF have produced research. In Cali one finds a host of research at the private University of the Valley, and private centers such as The Human Ecology Research Foundation, the Foundation for Higher Education, and Vivamos Mejor.

specifically trained for education research.¹² At least six other Colombian Ph.D's in education are presently working abroad.

Many "education researchers" have received their training in fields other than education. Many have carried out research "on" education, but not "from within" education. The informal list of 45, for instance, includes sociologists, economists, historians, medical doctors, a communications specialist and an urban planner. A similar diversity is evident in the disciplinary origins of those who completed the research reviewed by Toro and Lombana for the 1960-78 period: only 40 percent were trained in education. In our survey of research, 1979-81, we could determine the "disciplinary" background of 65 principal researchers, 30 of whom were not trained in the field of education (see Table 3).

This "crossing over" seems to have enriched the field of education and has probably contributed to a rise in its prestige. It also means that there is a lack of first-rate researchers within education itself. Research skills are, for instance, in painfully short supply within schools of education.¹³ Crossing over has occurred frequently from sociology and economics. However, research on education from anthropological, psychological, and political viewpoints is in short supply.

Among education researchers in Colombia, there seems to be a

¹²We do not wish to equate such certification with competence. Nor will we enter into a discussion of what constitutes research skill. Suffice to say that simple possession or even use, of sophisticated methodological and statistical skills acquired while completing a Ph.D does not assure proper application.

¹³The exception is the National Pedagogical University which will be treated in more detail below.

scarcity of "entrepreneurial skills."¹⁴ In addition there is an evident lack of individuals trained for the administration of research, possessing the ability to organize and coordinate the research process. These skills do not necessarily accompany solid theoretical or methodological training. In fact, it would be fair to say that little recognition had been given to the importance of research coordinators and managers or to the related need for a supportive infrastructure requiring orderly administration. We will return to this below in the discussion of institutionalization.

Research Topics and Methods

Demand and the personal interests and capabilities of researchers influence choices of research topics and methods. As we have seen, the general demand for research from the public sector grew during the 1960s, driven by a need for information to serve the increasingly technical planning process. The growth of planning and an expansionist mood within education may help explain the dominance of descriptive, global studies during the period (see Tables 4 and 5) and the dearth of micro-level studies looking at problems within classrooms or related directly to the teaching/learning process. It may help explain also the important place of research by economists or sociologists. Moreover, economists and sociologists were available and interested. These social science disciplines were already well established academically, and had a record of impact

¹⁴"Entrepreneurial" skills include the ability to "sell" research. See Sheldon Schaeffer, "Increasing National Capacity for Educational Research: Issues, Dynamics, and Alternatives," Ottawa: IDRC, 1979, p.18.

on policy, and had attracted students of development anxious to influence Colombia's future.¹⁵

Neither anthropological¹⁶ nor psychological approaches had been prominent in research on educational processes in the 1960s and 1970s. Nor had historians or political scientists turned their attention to education, with a few notable exceptions.¹⁷

The quantitative and descriptive demands of the time fit well also with academic training and interests of researchers. Prior to 1980, social science researchers from both the "reflective" and "technical" traditions preferred to carry out sweeping, "macro level" studies on a country-wide basis and/or covering extremely long periods of time. By 1980, however, more specific, regional or time-bounded studies had begun to appear, a shift perhaps best explained by the feeling that macro-level descriptive and diagnostic needs were by then being met, at least for the

¹⁵These statements are based on a careful study of the lectures on The State of the Art of Research on Education in Colombia, which were submitted to a National Seminar which took place in Bogota in April 1980. The reader is referred on this topic to the studies: Instituto SER de Investigacion, Seminario Nacional de Investigación Educativa, Informe Final (mimeo), Bogota, 1980, and Revista Colombiana de Educación, No. 5 First Semester, 1980.

¹⁶An isolated effort is constituted by Gerardo and Alicia Reichel-Dolmatoff in, for example, "La enseñanza formal en Aritama," in Educacion y Sociedad en Colombia, Gonzalo Cataño (Ed.), Bogotá, Universidad Pedagógica Nacional, 1973.

¹⁷Jaime Jaramillo Uribe, Historia de la Pedagogía como historia de la cultura, Bogotá, Universidad Nacional de Colombia, 1970
Guillermo Hernandez de Alba, Documentos para la historia de la educación en Colombia, Tomo VI, Patronato Colombiano de Artes y Ciencias, Bogotá, Editorial Kelly, 1980.

most basic variables.¹⁸ The shift may also have represented a reaction against large, often superficial surveys, related to an "imported" methodology.

With the Colombian educational system approaching "acceptable" level of literacy and primary school attendance in the late 1970s, attention began to turn, slowly during the last half of the 1970s, toward quality and an examination of the education-process. A survey in 1978 of researchers, policy-makers, and practitioners in education,¹⁹ for instance, identified the need for studies of classrooms and curricula, for research on teachers, and for an examination of the preparation of children entering primary school.²⁰ These themes began to find their way into research. So did attention to less advantaged groups and to

¹⁸Titles of works by three authors illustrate the shift:

Jaime Jaramillo Uribe, El pensamiento Colombiano en el siglo XIX, Bogota, Editorial Temis, 1964; as compared with Jaime Jaramillo Uribe, "Notas para la historia de la Sociología en Colombia" en: Apuntes para la Historia de la Ciencia en Colombia, COLCIENCIAS, 1970.

Bernardo Kugler y Alejandro Vivas, Efecto del Gasto Publico en la Educacion sobre variables poblacionales en el largo plazo. CCRP, Documento No. 14, 1975; as compared with: Bernardo Kugler y Alvaro Reyes, Educación y mercado de trabajo urbano en Colombia: Una comparación entre sectores modernos y no modernos, CCRP, 1979.

Rodrigo Parra, Dependency and Education in Colombian Underdevelopment, Madison, Land Tenure Center, University of Wisconsin, 1971; as compared with: Rodrigo Parra, La Educación Rural en la Zona Cafetera Colombiana. Buenos Aires, UNESCO-CEPAL-PNUD, 1978.

¹⁹Ligia Parra and Alvaro Pantoja, "Primera ronda de la consulta Délficia sobre necesidades y prioridades de la investigación en educación," Bogota, COLCIENCIAS, 1978 (mimeo).

²⁰In 1978 a group of researchers with interests in pre-school education met, providing extra stimulus to work in that field.

education in rural areas. These slow shifts accompanied the aforementioned broadening of education research to include ethnographic, micro-level analyses.

Statistical methods used in education research have grown increasingly sophisticated. The Toro-Lombana review of research, 1960-1978, illustrates the progression (see Tables 4 & 5). The return of researchers trained abroad began to affect both the sophistication of design and statistical treatment significantly in the 1970s. The trend continues.²¹

In Table number 6, we have classified research roughly by theme for the period 1979-81. Only one-eighth of the studies identified are descriptive. The economics of education continues to be an important category of research. Sociology is less prominent. Work on curriculum and methods is another major category of research. The list includes research that has psychological, ethnographic, political, and historical foci. In its entirety, it illustrates trends we have been pointing out: 1) toward greater concern for the quality and content of education, 2) away from purely descriptive work, toward more sophisticated analyses, conceptually and statistically, 3) away from sweeping macro-level studies and toward pointed, sometimes micro-level research, and 4) toward a

²¹Economist Bernardo Kugler lists in his article "Una revision critica de las investigaciones hechas en Colombia sobre Educacion y Economia," forty-five studies, out of which the oldest is dated in 1964. Out of these forty-five studies, at least fifteen show a high degree of quantitative sophistication. The papers submitted by Kugler at the Seminar on the State of the Art of Research on Education held in 1980 can be found in Revista Colombiana de Educaci6n, No. 5, 1980. (We do not suggest that "more sophisticated" is necessarily better.)

broader spectrum of methodologies including anthropology, psychology, and political science.

Finally, a research typology developed by Jean Pierre Vielle²² can be applied to differentiate research according to its main purpose. Vielle distinguishes disciplinary research, the primary purpose of which is knowledge generation, from research directed principally toward planning, instrumentation or action. In the late 1960s and early 1970s, educational research activity in Colombia was often identified with a process of data gathering for the purpose of elaborating political projects and programs, fulfilling a "fire department" role. During that period, "disciplinary" or "basic" research continued in the universities, usually carried out by individuals working on their own time and with little or no funding. In 1979, university-based researchers were focussing their efforts on basic research, leaving policy-directed

Disciplinary Research: Projects that analyze and evaluate educational phenomena and the interaction of the variables that constitute them, or the relationship between Education and Society. This is a type of research designed to create new knowledge.

Research for Planning: Projects that diagnose, prognose and evaluate educational systems; projects that design educational programs. Their results serve as a basis for educational policy, for decision-making within the framework of an already designed educational policy and for the implementation of new action.

Instrumental Research: Projects whose immediate aim is the introduction of modification into educational contents, proceedings, technologies, methods and systems. This type of research serves as immediate support for innovations.

Action Research: Projects that directly assume the realization of an educational process in a new fashion, often as an experiment. They are often an experience shared between the researchers and the groups toward which their action is directed.

See Jean Pierre Vielle, The Impact of Research on Educational Change, International Development Research Centre (IDRC), 1980 (mimeo).

research largely to the government and, occasionally, to private research institutions. "Action" research, designed to change directly behavior of those involved in the research, was just beginning to take hold, usually from a base in a private institution. In brief, differentiation of research efforts was occurring embracing a spectrum of research purposes, types, and institutions.

Research Institutions

Perhaps as many as 25 institutions in Colombia are involved in a serious and sustained way in the production of educational research. In our survey, we identified 19 institutions in Bogota, most of which fall in that category, located within the government, in public and private universities, and in the private sector. Many other institutions dabble occasionally in educational research or serve as a base for individual researchers.

In previous sections, we have noted how, as research has grown and decentralized, different institutions have taken on different research functions. To help understand better that process of growth, consolidation, and differentiation of education research, we will look in this section at the organization of two institutions which were very active on the Colombian research scene between 1979 and 1981: The Center for Research at The National Pedagogical University (CIUP), and the Office of Planning of the Ministry of Education.

The Center for Research, National Pedagogical
University (CIUP)

CIUP was created in 1976 as an educational research center attached to the Pedagogical University. Financial support comes mainly from the University, which means that indirectly, most funding is provided by the Government. Several research projects also have financial support from national and international foundations. Originally, most of its researchers came from ICOLPE, when it was closed down in 1976.

CIUP seeks an impact, through research, on both the academic world (Schools of Education at the different universities and educational research in general), and the world of educational policy (by designing, experimenting and/or evaluating innovative models that have to do with educational problems).

CIUP has sought both theoretical and administrative articulation in order to provide integration, quality and continuity in its research and its organization. Articulation at a theoretical level, of different methodologies and different disciplines, occurs in application to a single problem defined as a research priority. CIUP researchers agree on a topic providing focus for teams of researchers with different viewpoints. Early in the research process the approach is uni-disciplinary, that is, the problem is treated from the viewpoint of the researcher's own discipline and specialty. At a later stage, the combined work within each team produces a multiple approach -- that comes from several disciplines -- centered on a single problem.

The multidisciplinary approach described should not be confused with that of interdisciplinary studies, since the aim here is to preserve the different research methodologies which are particular to each discipline. The approach allows historical, ethnographic, and quantitative research to be focussed on one topic. It has led to increased sophistication in the methodological treatment of the subject matter. It has helped also to attract excellent researchers from other institutions to work in CIUP.

Theoretical articulation requires administrative coordination of projects in order to insure their efficiency and impact. Coordination is also necessary both to produce continuity within the Center and to maintain the researcher's continuity in his or her "topic." At the same time, active coordination of research teams at the institutional level allows research results to be published in a unified fashion.

During the 1979-81 period, CIUP has zeroed in on problems related to the primary school, attention to pre-school children, and science training. Historical studies have dealt with the history of pedagogical practices in primary school and with the history of educational policy. Ethnographic research has been conducted on three themes: The primary school teacher, teacher training institutions, and pedagogical practices which are effectively used in the classroom in rural areas.

The institutionalization of educational research in CIUP has had several effects on Colombian educational research. First it has helped improve the prestige of educational research. CIUP researchers have presented educational topics at Seminars in History, Methodology, and

Epistemology. These presentations have linked education more closely to other parts of the academic world, i.e., to the body of researchers who relate to one another fundamentally via a discussion of their own work.

CIUP's work has also had a bearing on educational research topics and methodological approaches. It has, for instance, encouraged anthropological and historical studies, which we have noted were seldom applied to education in the 1960s and early 1970s. CIUP's choice of topics has helped fill research gaps. These choices resulted from weighing results from analyses of: 1) research needs, 2) the functions assigned to a Research Center which was attached to the University, 3) CIUP's functions as part of the governmental sector, and 4) the human resources in CIUP -- in terms of their mastery of certain areas of knowledge.

CIUP's method of organizing itself around topics for research and methodological approaches leading to joint and continued actions has begun to attract the attention of other research institutions in universities, governmental agencies, and private research institutes. As the research center has gained recognition, it has been able, slowly, to recuperate for the Pedagogical University the task of designing experiences and models (curricular, administrative, etc.) -- as a sound academic exercise which could nevertheless be of use in the governmental sector.

CIUP devotes special attention to the publication of its journal, Revista Colombiana de Educación, which is directed to educational researchers both within the outside of the University and to the students in the Social Sciences in general. The Journal, together with Documentación Educativa, which is published by the library at the Pedagogical

University, constitute the most significant contribution on the part of the Pedagogical University to the process of dissemination of research-based information.

Up until now, CIUP's research work has had little bearing on graduate studies programs at the Pedagogical University. It has, therefore, done little to help produce a new generation of researchers or even to instill research skills in students. The quality of the formation given students depends on the quality of the professors, which, in turn, is a function of their pedagogical abilities and -- most importantly -- the degree of their involvement in research work and their relationship to other colleagues in this type of work. This lack of involvement in research work is largely responsible for the questionable quality one can find in graduate study programs in Education. Reinforcing this state, many Universities close their doors to potential researchers by excluding alumni from the use of the facilities once they have obtained their degree.

These circumstances illustrate the weakness of the Colombian "scientific community." Until the average University professor participates with commitment in that community, research will have little bearing on the quality of university education, or on the demands professors place on their students.

Colombia-PNUD-UNESCO Program (Project COL 76/003
Planning Bureau of the Ministry of Education)

Paralleling the growth of educational research within the university system, at CIUP and elsewhere, has been an attempt to strengthen educational research within the government agencies. By strengthening research within the bureaucracy, it is hoped that research will better serve policy and practice. During the 1979-81 period, the Colombian government aided efforts of two educational research teams within the Ministry of Education, one associated with a broad program of rural development, the other with an effort to improve educational planning.

The governmental program for Integrated Rural Development (DRI) was launched in 1974 as part of the Social Policy incorporated in the four-year Development Plan for the Lopez Administration. It seeks to integrate small campesino producers to the mainstream of the National Economy through development of the necessary socio-economic infrastructure. Among the objectives of the program is a widening of the coverage of, and an improvement in, the quality of education and a raising of the educational levels in the rural areas. To help guide the DRI program, several research projects were undertaken.

Initially it was thought that the research should be contracted out to several public universities. A series of coordination bottlenecks, however, prevented this, and it was decided then that the Planning Bureau of the Ministry of Education would assume responsibility. Accordingly, a special office devoted to research on DRI projects was

created as a part of the Planning Bureau. The young researchers hired produced six final reports in about two years' time. These reports presented educational and demographic characteristics of eight Departments (states), and described the stage of rural development in each.

A second, and more extensive set of activities, was carried out under a Program titled "Administration, Planning and Research in Education." Under the strong leadership of UNESCO advisor, Guillermo Briones, evaluative studies of national educational programs and five studies on human resources were completed between 1978 and 1981.²³

Although it is difficult to determine, the impact of these studies

²³Studies of national educational programs:

- Evaluación de las Escuelas Normales de Colombia. 3 volúmenes.
- Evaluación del Programa de Jornada Adicionales.
- Evaluación de la Educación Contratada con la Iglesia Católica. 2 volúmenes.
- Evaluación de la Educación de Adultos. 2 volúmenes.
- Evaluación de los Colegios Cooperativos. 2 volúmenes.
- Educación para el Desarrollo Rural de Colombia. 1 volumen.
- Evaluación de la Educación Agropecuaria (Escuelas Agropecuarias, Concentraciones de Desarrollo Rural, ITAS, Núcleos e Internados Escolares, INEM), En impresión.
- Evaluación de los Institutos Técnicos Industriales. 1 volumen.
- Evaluación de la Educación Comercial a nivel medio (Procesamiento información).

Human resource studies:

- Análisis demográfico, educativo y económico para la diversificación de la Educación Media en los Departamentos de Antioquia, Valle, Norte de Santander, Caldas y Meta.
- Demanda y utilización de Técnicos Agropecuarios en Colombia (Trabajo de Campo en curso).
- Relaciones entre Educación, Trabajo y Empleo en Colombia, en colaboración con el IIPE (en impresión).
- Demanda y utilización de Técnicos Industriales en Colombia (en impresión).
- Perfiles ocupacionales y profesionales de los egresados de los Institutos Técnicos Industriales e INEM en las ciudades de Cali, Barranquilla, Medellín y Bogotá (redacción informe final).

on policy or implementation seems to have been slight. The studies produced some potentially useful new data and added several new themes to the literature. They did not provide methodological advances. Indirectly, the information has helped, providing a stronger base for planning efforts, including those presently underway as part of negotiations for a World Bank loan. There is evidence that a portion of the data found its way into general planning or policy documents -- in the same descriptive form it was produced.

The contribution of these government-based initiatives to the institutionalization of research in Colombia is also difficult to assess. Whether the process helped move government officials to be more receptive, in general, to using hard data collected systematically is doubtful, receptivity lying much more in transitory individuals than in the system.

Whether it helped provide continuity in research is open to question, at least in part because it is too soon to see results. Studies done were generally isolated efforts, responding to a demand or idea of the moment rather than to a desire to strengthen planning and monitoring by carrying out repeated studies. No attempt was made to "add up" results. Diffusion of results was not broad. There was no active participation by the government-based researchers in non-governmental research networks.

Before a judgment can be made, several current discussions must run their course. The most important of these is the present negotiation with officials of the World Bank regarding a pending education loan. One major item on that discussion agenda is continuity of research within

the Ministry. Now that UNESCO funds have run out, a new source must be found. That does not seem to be forthcoming from the regular budget and it remains to be seen whether loan funds will be appropriated. The same is true for the uncertain future of a continuous data-collection system experimented with under the project during Briones' tenure. Continuity will probably depend also on whether or not a strong successor to Briones can be found. Finally, we do not yet know whether the individuals who received some on-the-job training in the research process will be able in the future to apply that experience.

Networks

Prior to 1978, there were no formal education research networks functioning in Colombia. Communication among researchers remained informal and sporadic. In the 1979-1981 period, two initiatives helped increase formal contact and communication among researchers. The first was a national effort mounted by the Colombian National Science Research Council (COLCIENCIAS). The second initiative involved formation by six private research institutions of an Interinstitutional Committee for Educational Research.

The National Science Research Council of Colombia

(COLCIENCIAS)

COLCIENCIAS is a semi-governmental institution created in 1968 and charged with strengthening science in Colombia. Its emphasis is on the

natural and physical sciences but some funds are allotted for programming and support of research projects in the social sciences as well. In June 1977, the then Vice-Minister of Education requested COLCIENCIAS to take responsibility for strengthening and supporting research in the field of education, this in the absence of a special institution established for that purpose. In part, the request was to fill a gap left by the demise of the Colombian Pedagogical Institute (ICOLPE), which had carried that function, not too successfully, from 1968 to 1975. In part, the request from the Ministry was motivated by a desire to harness research to help up-grade the quality of education and to help seek out and evaluate innovations. COLCIENCIAS accepted this challenge.

The first year's activities within COLCIENCIAS were dedicated to developing a set of priorities for educational research. To that end, a set of interviews was carried out with leading educators and educational researchers throughout the country. Results were tabulated with the idea that they would be fed back to the original respondents, in order to obtain a second round of responses (and in the process raise the consciousness of those involved). That never occurred. During the year a committee was formed to provide guidance. The committee suffered from lack of leadership and turnover. Five projects were funded during 1977 and 1978, one of which was partial support for a survey of educational research from 1960-1978. Total funding in 1977/78 amounted to about \$US 16,000.

In October, 1978 a new approach was begun, replacing the earlier diagnostic phase with an emphasis on funding specific research projects.

Rather than trying to attract researchers by offering funds in certain pre-set, "priority" areas, COLCIENCIAS sought to stimulate research by funding projects which were on-going or which researchers themselves felt were important. Programming was to follow research, not vice versa. Behind this approach was a desire to improve the second class status of research on education by providing funds to good researchers who would lend their prestige, and it was hoped, produce high quality results, enhancing the field.

To carry out its strategy, COLCIENCIAS staff visited research institutions to find research in progress that needed a boost and to discover projects people would like to do. Although the staff did not have a set of rigid priorities in mind, it did keep an eye out for possible projects in two areas: pre-school education, and research dealing with teachers. These areas had been identified as important in the earlier COLCIENCIAS exercise and in the review of research covering the period from 1960-1978.

In 1979, 15 projects were funded by COLCIENCIAS, ranging in value (of the COLCIENCIAS contribution) from \$US 1,000 to \$SU 20,000. The total amount spent was approximately \$US 120,000. All but two of the awards were made to university-based researchers. Support was given to a wide range of research including experimental, historical, survey, and evaluation research, carried out by researchers from several disciplines. These activities were buttressed by support for seminars dealing with appropriate technology in education and research on pre-school education, by a short course in project evaluation within education,

and by support of a national seminar on education, an initiative of the Interinstitutional Committee (see below). The Advisory Committee to COLCIENCIAS was revived to review projects and discuss general guidelines for activity in the field. Two publications were funded, one from the Appropriate Technology Seminar, the other a small grant to assist a bulletin titled "Educational Documentation."

In 1980, COLCIENCIAS again shifted its emphasis, devoting energy to setting out policy, derived from the earlier experience, and toward getting completed (in some cases underway) the research funded in 1979. Thus, relatively few projects were funded in 1980.

What has been the impact of this limited and relatively inexpensive flurry of activity? By providing some leadership and a degree of "certification" of research, COLCIENCIAS seemingly provided leverage on other funds and increased, at least temporarily, the general prestige of the field of educational research. Perhaps the best example is that of a \$US 20,000 grant made to the University of the Valle. Once that grant was approved by COLCIENCIAS, the University and the Foundation for Higher Education together contributed another \$US 160,000. A shot-in-the-arm was given to particular institutions, specifically to the University of Antioquia and The National Pedagogical University of Antioquia and the National Pedagogical University by providing some attention when there had been little before.

The strategy paid relatively little explicit attention to "infrastructure," although it did fund one bibliography, and the documentation bulletin. The Advisory Committee meetings, the seminars, and the

training course helped communication among researchers. Perhaps the best example is that of an on-going and fruitful dialogue among researchers of different persuasions, working in the field of pre-school education.

COLCIENCIAS also helped break a seeming monopoly by empirically oriented researchers with grounding in sociology or economics by funding some historical and experimental psychological research. Relatively little impact occurred on research skills. Rather, the project sought to draw out and support existing research talents, providing the entrepreneurial initiative that seemed to be missing in the researchers and in the organization of which they were a part.

How lasting these apparent advances will be remains to be seen. A decrease in activity in 1980 does not bode well. An attempt to develop an interinstitutional project (in history) has not yet taken hold after a year and one-half, hampered by an air of reserve among the four institutions involved. In the opinion of the COLCIENCIAS staff stimulating interinstitutional collaboration within particular sub-fields is, nevertheless, the most important next step to take.

The Interinstitutional Committee for Educational Research

This initiative arose at about the same time, in late 1978, that the COLCIENCIAS strategy was beginning to take hold. It contrasts with the previous strategy because it groups private institutions, is informal, is restricted to institutions in Bogota, and is supported mainly by

foreign funding. Six institutions originally made up the Interinstitutional Committee. The Instituto SER de Investigación is a multidisciplinary research and consulting organization headed by a former university President who is well-connected within the public sector. SER survives from contract research and grants and draws funding from both national and international sources. FEDESARROLLO is also private, lives mainly from research contracts, is headed by an ex-minister of Finance, and emphasizes economic analyses. It has both national and international funding. The Regional Population Center (CCRP) is also well-connected to the public sector, lives from contracts, leans on international funding, and emphasizes demographic research. The Center for Studies of Economic Development (CEDE) lies within the private University of Los Andes. Although it is university-based, most of its research is also by contract and researchers must scramble for grants.

Before turning attention to education, these four institutions had established reputations through the previous research work of their economists, demographers, engineers, and sociologists. With the injection of funds, and budding interest of particular researchers in each institution, all four moved easily toward research on education.

A fifth participant in the Interinstitutional Committee, Acción Cultural Popular (ACPO), has its roots in a program of non-formal education by radio set up and promoted by the Catholic Church. In recent years the program has loosened its ties from the church and has developed an inhouse research capacity. The organization is not dependent on external funding but seeks such funding for its research. Finally,

the Foundation for Permanent Education in Colombia is a research-oriented, private organization focussing on non-formal education. It, too, lives from contract research.

To these last two institutions, which come at educational research from within the field of education rather than from outside, two more were added in 1980: The Research Center of the National Pedgagogical University (described above) and the Educational Research and Technology Program within Javeriana University (also a private University), offering a Masters degree in educational research.

The origins of the Interinstitutional Committee lie in part with a shared concern that the Colombian educational research "community" needed leadership and revitalization. At the time, the COLCIENCIAS effort to stimulate research had not yet gained momentum; even if it had, however, there were several practical reasons why a complementary initiative was set in motion by private institutions depending for their existence on their ability to obtain research funding. First, COLCIENCIAS had the reputation for being unconscionably slow in their process of making decisions and getting out the money. To these private institutions, delays and related cash-flow problems can be very costly. But more important, COLCIENCIAS had a strong bias toward the universities, particularly the public universities -- for two reasons: Given their limited funds, COLCIENCIAS did not feel it could afford to pay the high overheads private institutions charge. By way of contrast, grants to universities could provide leverage on university funds and usually did not have to pay salaries or overhead. Second, the COLCIENCIAS staff felt that new

ideas were more likely to come from the university than from the more technically oriented private sector. Two other factors helped explain the formation of the Committee: The personal leadership of Agustin Lombana, and the fact that Lombana was then acting as a consultant to the Ford Foundation which seemed predisposed toward support of collaborative research.

The Committee met regularly and frequently over a period of seven months in late 1978 and early 1979. Members attempted, as a group, to develop a research agenda, but wound up with a very general set of research categories staking out the field: Education and Economics, Education and Culture, Education and Politics, Education and Social Differentiation, and Teaching. Individual institutions then formulated research proposals within the respective themes and presented the package to the Ford Foundation for funding. Each of the five proposals in the package had been aired and critiqued at meetings of the Committee during 1979. Also included in the package were funds to help to organize a national meeting on educational research, to design a joint research project, and to support a coordinator (Lombana) working part time. Funding was approved by the Ford Foundation in early 1980, at a level of \$US 215,000.

In April 1980, a national seminar was held, planned and administered by the Interinstitutional Committee, with financial help and staff participation from COLCIENCIAS. At the meeting, five state-of-the-art papers were presented and critiqued, and working groups discussed each main theme in greater detail. The 80 participants came from private

institutions, universities, and the public sector. A report of the meeting was distributed and three of the state-of-the-art papers were published in the Colombian Review of Education. Beyond that, it is difficult to know whether the meeting had an effect. It did help mobilize COLCIENCIAS and it did put a number of people in contact who had not met before, but there was no other follow-on.

The Committee has continued to meet, sporadically. It has formulated a joint proposal -- a major accomplishment -- in which the several institutions have fashioned a major questionnaire and field study around the theme "Income Distribution and Education in Rural Colombia," from which each institution will draw data for analysis of a different aspect of the theme. Proposals have been critiqued within the group. In addition, the Committee has begun a seminar series for researchers, the first of which was very well attended.

What have been the results of this approach to strengthening research capacity? To a degree, the Committee has helped integration and communication among researchers, at least among those immediately involved. However, the group is small, has expanded slowly, and has been seen by some outsiders as a clique, seeking preferred access to funds. Its broader efforts -- the national seminar, and the newer series of research seminars -- have not had a cumulative impact. If the seminar series continues, that integrative impact could occur. Much depends on the energy of the coordinator. Despite some differences of opinion within the Committee (between those who are social scientists examining education and those within education applying social science research

techniques), the Committee has helped communications across disciplinary lines.

By working within a general framework, by formulating a joint proposal, and by commissioning state-of-the-art papers, some assistance has been given to integrating and providing continuity in research. In addition, four of the studies continued, but added new dimensions to, previous research interests of the researchers. Seminars have helped dissemination, but mostly to other researchers; a few well-placed and knowledgeable civil servants have participated, but not many. But research has not been brought to bear on the discussion of burning educational issues. To that end the Committee expects to begin a public forum that would run during the months of the election campaign.

Funding has been obtained, from only two sources, however, the Ford Foundation and COLCIENCIAS. Whether the Committee can tap other national and international sources remains to be seen. Marketing the joint proposal will provide a test.

In theory, the Committee has helped sharpen research skills, through critiques of each other's research and by discussing issues from several different disciplinary perspectives. However, the ethos is such that critiques are sometimes very weak. Institutions and the individuals representing them are reluctant to step on each other's toes. Activity by the Committee has helped to fill a gap in entrepreneurial and coordinating skills.

The Committee strategy has, as in the case of COLCIENCIAS, drawn upon existing research talents. It has probably done little to strengthen

those talents or the infrastructure of individual institutions, although it has helped maintain them. Together with the COLCIENCIAS strategy, it has added some prestige to the study of education, by involving first rate researchers, in research on education.

The Data Base and Data Processing²⁴

A relatively ample data base for research on education exists in Colombia but it is not well-organized, lacks periodicity, and may not be accurate or comparable over time. Moreover, as might have been projected from earlier discussions of research topics, skills, and institutions, the data base is not closely tied to the practice of education. Indeed, no national assessment is carried out by the Ministry of Education on a periodic basis, although proposals for such an assessment exist and some pilot work has been carried out.²⁵ There is no education data bank, Nor is there a good listing of available data about education in Colombia.

The mountains of data that do exist pertaining to education can be found in historical records, household surveys, nutrition reports, epidemiological surveys, and population studies. Some special research projects (such as the costs and labor market studies of ECIEL) have generated large quantities of unanalyzed data.

Nor is there in Colombia a major problem of computer availability.

²⁴Information in this section relies heavily on Toro, Campo, and Myers, op. cit., pp. 15-16.

²⁵Pilot work has been done by the Planning office in conjunction with the Instituto SER.

The latest models are on hand. In most cases, financing can be found. Software is still in a pioneer state, but meets most research needs. It is not, therefore, availability but organization for use and access that cause problems. Hampering access are a host of difficulties ranging from university strikes which close libraries and computer centers to bureaucratic demands that cause long delays.

Dissemination and Documentation

Again using information from Toro and Lombana's study of research 1960-1978, it is clear that most (at least three-fourths of all) research reported remained in mimeographed or type-written form. Less than one-fourth of the research analyzed appeared in the form of a magazine article or a book. The general trend is supported by our survey of research in the 1979-1981 period. Toro, Campo and Myers wrote in 1979:

"Since 1971, special efforts have been made to accumulate and diffuse research results. ICOLPE prior to its closing in 1976, COLCIENCIAS, ICFES, ICETEX, the National Pedagogical University by way of its Revista Colombiana de Educación (1978), have experimented with diverse strategies for diffusing national and foreign research findings. In the private sector, the journal Educación Hoy (1971) aims its publication at practicing educators.

COLCIENCIAS and ICFES have established a reference service, with support from the World Bank, with according to informal sources, has generated bibliographies in response to more than 1000 requests. Javeriana University is establishing a catalogue and archive of educational research, beginning with the works analyzed by Toro and Lombana. Supporting bibliographic sources in the social sciences generally has improved considerably in recent years. Thus, although the COLCIENCIAS study notes that bibliographic

sources and documentation are weak, the situation is not bleak and is improving rapidly."²⁶

Of late some experimentation has occurred to try to move research findings from the printed page into action. Educación Hoy has organized a series of seminars with teachers in an attempt to meet their needs and to demonstrate how research results reported in Educación Hoy could be useful in practice. The growth of action research, is aimed also at improving dissemination -- by bringing the researcher and actor together from the start. Despite these efforts, there is enormous room for improvement, something that will require, eventually, a broad change in attitudes among Colombian educators and bureaucrats.

Funding

Educational research in Colombia is supported with both national and international funds. The main public-sector sources of national funding are: university budgets which cover researchers' salaries but little else, COLCIENCIAS (see above), and the Bank of the Republic. Occasionally, the Ministry of Education contracts research. These sources are less attractive than they might be because of the excessively bureaucratic procedures involved in obtaining awards, long and inevitable delays in payment, and the failure to provide "overhead," conditions which affect particularly private research organizations trying to live from contract research. Private sector support for research is not

²⁶Toro, Campo, Myers, p.14.

large but the Foundation for Higher Education, The Caravajal Foundation, the National Association for Industry and Finance, and others provide some funds. These funds are not available in open competition.

Although information about sources of funding for research is far from precise, it is evident that foreign funding has played, and continues to play, an important role in support of educational research in Colombia. A survey by COLCIENCIAS of research in 1972 and 1977 indicated that almost one-fourth of all social science research carried out in Colombian universities was funded from foreign sources.²⁷ Because private institutions are likely to have an even higher percentage of their funding from abroad and because educational research has in recent years been increasingly located in private institutions it is likely that dependence on foreign funding is even higher. Our own survey of research, 1979-1981, supports that.

It is not our purpose in this paper to analyze the effect of foreign funding on Colombian research. Certainly, however, Colombian institutions are influenced by international fads and fashions. At the same time, foreign funding can provide local institutions with an additional degree of freedom to pursue critical research which would not be funded locally. In some instances, the government welcomes foreign funds for research, desiring the information it will produce, but finding it difficult for political reasons to justify support for research within its own budget.

²⁷COLCIENCIAS, op. cit., pp.16-17

From our information, we are not able to determine whether the level of funding available for educational research is "adequate" or whether it is increasing or decreasing. More important than such information, however, would be a better fix on sources and modes of funding. These not only influence the form and content of research but the process of institutionalization as well.

Training

The ability to train a next generation of researchers provides one test of whether or not a "national research capacity" is in place. That capability does not yet exist in Colombia in education, despite the presence of considerable research talent. Only one major university program exists specifically to train researchers in education at the Masters level -- at Javeriana University. One other MA research program has sprung up outside the university system within the last year.²⁸ No doctoral programs exist. For some time to come, most Colombian educational researchers will probably continue to be trained abroad or will receive their training outside the field of education, then turn their attention to educational research.

²⁸The International Center for Education and Human Development (CINDE), located in Medellin, has embarked on an ambitious program, drawing its teaching talent from Colombia and providing certification through an arrangement with NOVA University in Florida.

Summary and Conclusions

Since 1960, educational research in Colombia has grown and changed dramatically. An active cadre of qualified researchers has formed, often attracted to the study of education from other fields. A process of institutional, thematic and methodological diversification has occurred. That is evident in the growth of educational research in private centers and within the government as well as in universities. Greater attention is now being paid to the content and quality of the educational process itself. Micro-level classroom studies and ethnographic research have appeared alongside the macro-level research, based primarily in economics and sociology, that characterized most of the 1960s and 1970s. Research has become more sophisticated and analytical. The data base has improved.

A relatively stable political climate during the period, and an increasingly technical attitude within government helped research grow, but the demand for research is still low and a "research mentality" is not widespread. Despite a long tradition of inquiry in Colombia, researchers continue to face major institutional and socio-cultural obstacles to their research. Research incentives are lacking.

With many of the elements of a national research capacity present at a relatively sophisticated level (researchers, institutions, data, some publications), a major question now seems to be how to organize and coordinate research activity so it can have a cumulative impact on education. Closely related are questions of continuity, stability, and communication within educational research. Throughout the period,

skills needed to organize and promote educational research were in short supply and general conditions were not conducive to attract them from other fields or to develop them.

Since 1979, and beginning somewhat before, several strategies have been pursued in Colombia, consciously or unconsciously, to strengthen and consolidate educational research. In our discussion of institutions and networks, we described four **specific** strategies:

1. Institutionalizing research within the Bogota-based National Pedagogical University places research close to the training of educators, in an established, publicly funded institution one step removed from the government. The Center has taken a coordinated, critical/analytical approach to research, applying several disciplinary methods to a set of selected problems.

2. The Ministry of Education, with foreign funding, has tried to institutionalize research "in house" and bring it to bear on policy and planning through diagnostic/descriptive work.

3. COLCIENCIAS, operating with public funds, has focussed primarily on educational research in public universities. Acting as a catalyst and with a more general scientific purpose in mind, it has supported individual researchers' projects, tried to promote communication among researchers, through seminars and joint projects, and provided national diagnoses of research needs.

4. Finally, the Interinstitutional Committee for Educational Research, established with foreign funds, has attempted to strengthen educational research by regularizing informal communication and debate

among research institutions, by brokering projects, and by fostering joint research. The Bogotá-based network is comprised almost entirely of private sector institutions.

These strategies should be seen as complementary initiatives. They reflect, and have stimulated, diversification and differentiation of research. In greater or lesser degree, each has helped identify and fill research gaps, added prestige to the research field, and facilitated communication among researchers (less often with policy-makers). In the process, a slow start has been made toward filling the important gap in entrepreneurial and organizational skills, mentioned above. None of the strategies seems to have had a major impact on the Colombian ability to produce a "next generation" of educational researchers. Nor have they had much effect on the general research climate, on incentive systems, on the ability to publish, or on the demand for research. They have, however, increased continuity in educational research by strengthening institutional bases, by capturing funds, by stimulating professional exchange, and by setting problem areas to be tackled over time. in something other than an ad hoc fashion.

In the final paragraphs, we will advance several theses, intended as a basis for general reflection on the process of strengthening a national educational research capacity, based on the Colombian experience.

1. In the earlier stages of expansion of an educational system, the need for diagnostic and descriptive studies predominates, reinforcing

a tendency to disregard the analytical work which takes place at the margin, and mostly in universities, and to favor quantitative over qualitative research. As expansionist pressures decrease, qualitative research, often restricted in scope, becomes more common. This can aid the process of differentiation, but also encourages disciplinary research outside the confines of the university.

2. There is a tendency for research to become increasingly decentralized and differentiated over time -- in terms of goals, methods, themes, and institutional locations. Institutional differentiation of research occurs as research capacity grows. Government agencies sponsor specific, self-contained research projects oriented toward planning and implementation, often of a descriptive, diagnostic, or evaluative nature. University-based research is likely to be disciplinary, "basic" research, sometimes critical in tone. Private research centers, usually living from contract research, attempt to combine "basic" research with evaluations. Most so-called action research is located also in private centers.

The process of differentiation brings with it the advantages of specialization, and opens opportunities for institutions with new and imaginative research and methodological strategies. At the same time, the process can create communication gaps among researchers and further divorce research from policy. Thus, conscious efforts are needed increasingly to bring together researchers, to accumulate research results, and to foster communication between researchers and policy-makers.

3. Strategies directed toward creating or supporting informal and

formal networks at personal and institutional levels and toward greater dissemination of research results can be used actively to support specialization, consolidation, and deepening of research. That strategy contrasts with after-the-fact attempts to strengthen communication once differentiation has taken place. A "networking" strategy has played a catalytic role in education in Colombia. (In other parts of the social sciences in Colombia, consolidation of research occurred first -- then networks grew.) The catalytic effect of a networking strategy will depend on the presence of skilled researchers and on the timing of the effort. In order to avoid restricting communication among researchers, it is probably necessary to promote multiple networks, particularly as the size of the research community grows.

4. Research entrepreneurship and organization are missing and increasingly important capacities as research grows. It is not enough simply to build up a stock of methodological and substantive expertise, something that can occur relatively quickly in the first stage of building a national educational research capacity. An unstable institutional environment and lack of incentives work against attracting to the task existing talent or developing those talents. Several strategies can be followed to help fill the gap, including: providing entrepreneurial and organizational assistance from a central point (as done in COLCIENCIAS); supporting informal leaders with those abilities (as in the Inter-institutional Committee); and strengthening organization within particular institutions (as in CIUP). Until strong local research institutions are in place, other organizations, and particularly funders, are

likely to play an influential role, affecting research priorities and styles.

5. Attracting to the field of education capable researchers trained in other areas can increase the prestige of research in education. Prestige is also aided by supporting a mix of research activities, including "basic" or disciplinary research as well as "applied" or policy-oriented research.

6. A host of methodological approaches can be applied with varying degrees of success depending on the outcomes desired and the people involved. "More sophisticated" is not necessarily better."

7. Insufficient attention is given to the difficult task of locally training next generations of researchers. A first step toward such training may be the creation of a small community of researchers whose academic action in turn will force administrative attention to research.

8. Modest financial support can go a long way toward strengthening research capacity, productivity, and use by: identifying and supporting isolated researchers, adding in entrepreneurial and organizational skills, and promoting joint projects.

9. Efforts to identify priorities and gaps can help stimulate research in missing areas and help vary methods applied to the study of education.

10. Influencing the climate for research is extremely difficult and cannot occur over a short period except in superficial ways. Columbia's history of inquiry, experience of social research, and relative openness favor research, but a tradition of received wisdom works against the spread of a research mentality beyond an elite.

TABLE 1
 INSTITUTIONAL LOCATION AND DATE OF PUBLICATION¹

Institutional Location	Date of Publication				N	%
	1960 1967	1968 1971	1972 1975	1976 1978		
Ministry of Education	1	4	53	6	64	23
Decentralized Offices or Administrative Departments	-	11	10	14	35	15
Regional Government Offices	-	-	-	-	-	-
Departmental Gov. Offices	-	-	1	-	1	-
Municipal Gov. Offices	-	-	-	-	-	-
Governmentally-financed Universities	-	4	34	18	56	24
Private Universities	-	1	6	9	16	7
Private Research Institutions	9	13	16	13	51	22
Individual Authors	-	2	4	-	6	3
Other	-	1	1	1	3	1
Total N	10	36	125	61	232	
Total %	4	16	54	26		100

¹Source: Jose Bernardo Toro and Agustin Lombana, "El Fenómeno de la investigación en Colombia (1960-78)," Bogotá: FEPEC-CEDEN, 1978.

TABLE 2

LOCATION BY SECTOR OF COLOMBIAN RESEARCH INSTITUTIONS
AND RESEARCH ON EDUCATION¹

Sector/Type of Institution	No. of Research Institutions	No. of Research Studies ²
Ministry of Education	1	30
Public Sector		
Public Universities	4	14
Private Sector		
Private Universities	3	32
Private Research Centers	10	24
Other	1	2
Total	19	102

¹Source: A survey of Research Institutions carried out by Clemencia Chiappe, August-September, 1981

TABLE 3
SPECIALTY OR PRINCIPAL RESEARCHER

Specialty	1960-1978 ¹		1979-1981 ²	
	N	%	N	%
Education	51	40	35	54
Psychology	4	3	5	8
Sociology	42	33	6	9
Economics	17	13	8	12
Demography	2	1	-	-
Medicine	8	6	-	-
Law	1	1	-	-
Anthropology	-	-	1	1
Political Science	-	-	1	1
Philosophy	1	1	3	5
Engineering/Mathematics	-	-	6	9
Other	3	2	-	-
Totals	129	100	65	99

¹Source: Toro and Lombana, p. 68.

²Source: Chiappe

TABLE 4
RESEARCH DESIGN AND DATE OF PUBLICATION¹

Design	Date of Publication				N	%
	1960 1967	1968 1971	1972 1975	1976 1978		
Documentary-Historical	4	10	36	6	56	24
Descriptive	6	21	54	35	116	50
Descriptive	-	3	8	11	22	9
Descriptive-correlational	-	1	21	2	24	10
Causal-Experimental or quasi-experimental	-	1	7	7	16	7
Total N	10	36	126	61	233	
Total %	4	16	54	26		100

¹Source: Toro and Lombana, pg. 129.

TABLE 5
 STATISTICAL LEVEL AND DATE OF PUBLICATION¹

Statistical ¹ Level	Date of Publication				N	%
	1960 1967	1968 1971	1972 1975	1976 1978		
Tendencies/Percentages	10	27	71	35	143	67
Contingency Tables						
Correlations	-	6	13	10	29	14
Regressions, covariance						
Factor analysis	-	3	26	11	40	10
Total N	10	36	110	56	212	
Total %	4	17	52	27		100

¹Source: Toro and Lombana, p. 132.

TABLE 6
 DISTRIBUTION OF COLOMBIAN EDUCATION RESEARCH
 BY THEME, 1979-1981¹

Theme	N	%
Statistical descriptions of the school system	12	12
Studies of educational needs	6	6
Evaluative studies of the school system	15	15
Human resources/labor markets	10	10
Educational finance	7	7
Politics of education	4	4
History of education	4	4
Curriculum and methods	15	15
Determinants of educational performance	3	3
Child development	4	4
Ethnological studies (primary schools)	3	3
Preschool education	9	9
State of educational research	4	4
Not classifiable	6	6
Totals	102	100

¹Source: Chiappe.

BIBLIOGRAPHY

- Chiappe, Clemencia. Anotaciones sobre la situación de las ciencias sociales en Colombia (mimeo), 1979.
- COLCIENCIAS. La investigación en la Universidad Colombiana. Sub-dirección de asuntos científicos y tecnológicos, Bogotá, 1978.
- Instituto SER de Investigación. Seminario Nacional de Investigación Educativa, Informe Final, Bogotá, Instituto SER, 1980.
- Myers, Robert. Connecting Worlds, Ottawa, Canada: International Development Research Centre, 1981.
- Parra, Ligia and Alvaro Pantoja. "Primera ronda de la consulta Délfica sobre necesidades y prioridades de la investigación en educación," Bogotá, COLCIENCIAS, 1978.
- Shaeffer, Sheldon F. Increasing national capacity for educational research: issues, dynamics, and alternatives. Prepared for the Research Review and Advisory Group. A project of the International Development Research Centre (IDRC), Canada, October, 1979.
- Toro, José Bernardo and Agustín Lombana. El fenómeno de la investigación en educación en Colombia, 1960, 1978. FEPEC/CEDEN, Bogotá, 1978.
- Toro, José Bernardo, Rafael Campo and Robert Myers. "Educational Research Capacity: The Colombian Case," a paper prepared for the Educational Research Review and Advisory Group, Bogotá, Colombia, November, 1979.
- Vielle, Jean Pierre. The impact of research on Education change. Educational Research Review and Advisory Group. A project of the International Development Research Centre (IDRC), Canada, April, 1980.