Educational Planning: an Inventory of Major Research Needs

International Institute for Educational Planning, Paris
EDUCATIONAL PLANNING:
AN INVENTORY OF MAJOR RESEARCH NEEDS

International Institute for Educational Planning
PARIS
A WORD ABOUT IIEP

The International Institute for Educational Planning came into existence in July 1963 as an international centre for advanced training and research. Created by Unesco as a semi-autonomous body, it is also financially supported by the World Bank. Its physical facilities are provided by the Government of France.

The Institute's aim is to expand knowledge and the supply of competent experts on educational planning in order to assist all nations to accelerate their educational development as a prime requirement for general economic and social development. In this endeavour the Institute will co-operate with interested training and research organizations throughout the world.

Details of the Institute's Governing Board, Staff, and Council of Consultant Fellows, and also its other publications, are to be found at the back of this volume.

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For most of the world, educational planning is a new field of endeavour. It has rapidly accumulated an impressive body of useful experience, gained by trial and error, but thus far it has derived little benefit from organized and methodical research. It was with a view to filling this gap, to strengthening educational planning through research and advanced training, that Unesco, with the aid of the World Bank, the Ford Foundation and the French Government, launched the International Institute for Educational Planning in July 1963.

This report is the third in an inaugural series of IIEP publications, all designed to serve three main groups: first, the producers of research, the research workers themselves; second, the consumers of research—the policy-makers, planners and administrators; and last, the supporters of research, that diverse group of international organizations, bilateral aid agencies, philanthropic foundations and national agencies who are both producers and consumers of research, who have been the principal advocates of educational planning, and who must be relied upon to provide much of the practical support for research.

The Institute's first report was a comprehensive Bibliography on education planning, setting out the present state of knowledge by listing some of the most significant documents—a few hundred in number—published in eight languages. The second report was a Directory of Institutions, some 85 institutions in 30 countries doing research and training important to educational planning. This third report aims at mapping out, admittedly in a somewhat sketchy and incomplete way, the most urgent research needs of today as seen from the vantage point of both producers and consumers of research.

It should be made clear at the outset that this report does not attempt to dictate research subjects or to confine the efforts of research workers within rigid patterns. It simply suggests a number of research topics which, in the opinion of people of experience and repute, are considered to be particularly useful and important as well as feasible, and attempts to show how such research can contribute to a better knowledge of the whole field of educational planning. Although it treats each topic as a "project" and roughly suggests how each might be approached, these suggestions are only illustrative; it remains for the researchers themselves to work out the details and the best strategy to fit their own conditions and inclinations.

The twenty-five subjects—which are numbered serially in this book for easy reference—recommended for priority rating were chosen from a much larger number on the basis of fairly simple criteria: Is the problem important? Does it
lend itself to research? Is the research practicable in terms of costs, manpower and other essential resources? Is it likely to yield useful results fairly rapidly? Naturally a priority list thus drawn can never be final or complete; it represents no more than the best consensus of opinion as of today, and but a transient image of a fast-moving frontier of knowledge.

It should also be noted that the projects were selected with a decided bias towards practical application. This does not mean that longer range fundamental research is unimportant in the Institute's opinion, quite the contrary. But the primary concern of the Institute is to aid the "operators", particularly in the developing countries, to cope with the practical problems of educational planning. Besides, the Institute believes that applied research must in any event be the pace-setter for fundamental research: a valid and useful body of general theory in this field can emerge only from a systematic examination of practical experience.

Lastly, it should be emphasized that the only research topics considered were those that have an immediate bearing on educational planning, which means in practice largely topics that require an interdisciplinary approach. The exclusion of many important problems, such as the investigation of the learning process by educational psychologists, or the study of the impact of education on village life by sociologists, or the inquiry into the historical return on educational investment by economists, may disappoint specialized scholars interested in these questions. But the main concern of this report is with those problems of educational planning which cut across several disciplines and which risk falling between the stools of traditional academic disciplines. It is precisely this risk that emboldens the Institute to venture its suggestions on research priorities.

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The reader may be better able to appraise the value of this report if he knows how it was produced. The process involved three separate stages. The first, lasting almost a year, consisted in a kind of far-flung "brain picking"; by means of direct interviews and correspondence, conducted by the staff of the Institute, a number of research scholars and experienced "operators" who had made significant contributions to this field were asked to enumerate half a dozen or so specific research topics which they considered most worthy of early attention. Many dozens of opinions were thus collected and, as might be expected, they varied greatly depending on the particular vantage point of each contributor. These contributors are listed below, as an expression of the Institute's gratitude to them.

These ideas, that gave a good view of the problems that were uppermost in the minds of leading producers and consumers of research, were then sorted and synthesized in a working paper which provided the basis for the second stage—a ten-day seminar of experts held through the courtesy of the Rockefeller Foundation at Villa Serbelloni in Bellagio, Italy, in July 1964. Particular thanks are
due to Guy Benveniste, a senior member of the Institute’s staff, for preparing this working paper, which provided the basis not only for the discussions of the seminar but also for the drawing up of the present report. The Institute also wishes to express its gratitude to the participants who prepared discussion papers and contributed their advice and counsel to the seminar. They, too, are listed following this Preface.

The seminar succeeded in reaching a substantial consensus of opinion on the topics which, in its view, deserved priority attention. It then proceeded, mainly in specialized sub-groups, to consider how each of the selected research topics could best be defined and approached. There was no voting and no attempt to adopt formal resolutions; each participant felt free to express his personal views irrespective of his institutional affiliations, in the knowledge that he was not speaking “for the record” but simply contributing ideas to a report which the Institute itself would prepare under its sole responsibility.

The Bellagio seminar was followed by the third stage, which involved a further sifting of ideas and the preparation of the present report. The Institute owes special thanks to John Vaizey, a senior consultant whose creative contributions to educational planning are widely known, for his help in drafting this report in association with the Director of the Institute.

It may be mentioned here that, from the research topics which emerged at Bellagio, the Institute has selected several which appear best suited to its particular mission and capabilities for its own priority attention. It hopes in the next two or three years, with the help of others, to initiate work on as many of these as possible.

In presenting the following research suggestions, it is the Institute’s hope that scholars and research institutions throughout the world will find them profitable in making their own choices and designing their own projects, and that organizations which are in a position to support research will find in them a useful guide to action. Needless to say, the Institute is keenly interested in learning of work undertaken on any of these or related topics so that it can inform others and its own research work can be better informed.

Although Unesco created the Institute and has since helped it in a host of ways, Unesco bears no responsibility for the content of this report; it rests entirely with the Institute, whose intellectual autonomy Unesco has been careful to preserve.

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CHAPTER I

THE ROLE OF RESEARCH IN EDUCATIONAL PLANNING

In order to provide a context for these research priorities, it may be appropriate to consider what we mean by educational planning and what research can do to improve it.

Planning must be distinguished from day-to-day administration, yet it must be intimately related to administration if it is to have any real effect. It must clearly be more than the elaboration on paper of future targets which bear little relation to what happens in the schools and universities or to the process by which policies are formed, budgetary decisions made, and resources allocated. An educational plan should be capable of being translated into action. It should be a continuous process running from the diagnosis of present conditions and the assessment of future needs to the formulation of plans for meeting these needs, the formal approval of such plans, their practical implementation, the evaluation of results, and the revision and formulation of subsequent plans in the light of this experience.

Educational planning should, in principle, cover the whole educational system and relate its development to the economic and social needs and objectives of the nation. It should provide for a balanced development of all the levels and types of education and training, for adults as well as for children, in school and out of school. It should be concerned not only with the quantitative expansion of education, but also with its qualitative improvement, with the reforms and innovations which will make the schools and universities of tomorrow not merely bigger, but more efficient, effective and appropriate than those of today.

Educational planning is thus a process which requires the participation of many different kinds of people: teachers, educators, parents, pupils, administrators and politicians. In a sense, all of these are educational planners; but in the context of this report, the term "planners" will be restricted to those working at a strategic level who are technically competent to express national objectives and aspirations in the form of a coherent plan and who are in fact responsible for drawing up such a plan.

In some countries, planners will be officially identified as such and may be part of a separate unit, perhaps of the Ministry of Education or a central planning commission, or both. In other countries, the planning function may be more diffused and assumed by administrators who are not officially planners, though their planning function is quite separate from their administrative duties.
and calls for different kinds of skills. Whatever the organizational pattern, there must be effective linkages among all those involved in planning, decision-making and execution if effective results are to be achieved.

A planner, of course, is as interested as any citizen in the content and quality of education and in its usefulness to the individual and to society. As a planner, however, he has a special concern in making more specific the objectives, policies and priorities of the nation, and in the practical means of pursuing them. He is concerned particularly with the costs of education and with the possibilities of reducing them while preserving or improving quality; with the salaries and other inducements needed to attract more and better teachers; with the most effective way of using teachers; with the cost and quality of school buildings, the cost per pupil, the cost of drop-outs; in other words, with how to get the best possible results from the resources available. His principal task, however, is to elaborate policy and programme alternatives and formulate clearly their implications, because it is on the basis of these that political leaders and decision-makers in general will make their choice.

Educational planners have thus a role similar to that of economic planners and manpower planners. Indeed, there is no clear demarcation line between them, and their functions overlap to a large extent. Education is so intimately related to economic and social development that educational, economic and social planners must always work closely together. The educational planner must thus clearly take into account many different variables in a very complex equation, and put into a proper perspective many aspects of a very tangled picture. He cannot be an expert on each of these aspects, but he must be able to identify the problems that need to be solved, and find the right people who may be able to solve them. This is where research comes into the picture.

In considering the role of research, it should be borne in mind that there are several kinds of research. There is, first, fundamental research, which is the disinterested quest for knowledge without regard to its immediate application. There is, next, applied research which aims at finding answers to problems more immediately relevant to practical operational matters. There is, lastly, the tapping of a body of assessments and judgments made by people of discernment and good sense on the basis of their wide and long experience. All three contribute to the planning process, and most of the projects outlined in the following chapters can be attacked by any of these three methods, singly or in combination, for they form a continuous spectrum and are not mutually exclusive.

Here, however, our main concern is with the middle of the spectrum, i. e., with applied research. This does not mean that we are not concerned with fundamental questions, such as shedding more light on the role of education in transforming cultural patterns or in spurring economic growth. But we are convinced that often the best way to tackle these fundamental problems is by attacking spe-
specific practical problems and studying them in their real context. In the field of educational planning, this is the only way to generate the material from which a sound and usable body of theory can be evolved.

Nor do we mean to ignore the other end of the spectrum—the assessments and judgments of people of experience and discernment. On the contrary, one of the important tasks of research is precisely to tap this experience, for it is a prime source of valuable evidence. But the experience of any one person, however wide, or of any one country, is rarely broad enough to provide an adequate basis for valid generalizations. Only a systematic and comparative examination of a sufficiently large and diversified cross-section of national experiences and individual judgments could provide such a basis. The collection and classification of data from a variety of situations is, therefore, a prerequisite for most of the research projects envisaged in this report. In other words, the practical problems of educational planning must be studied systematically in their real setting in a representative sample of countries where there is already available a body of accumulated practical experience which, if properly handled, can yield a rich harvest of knowledge.

If it is to be effective and efficient, applied research must have a well conceived strategy. For most of the projects outlined in this report the first step is a tentative design of the research structure and the careful examination of all the relevant literature, including operational reports and surveys often scattered in files of many agencies and institutions.

With the completion of this first stage, the time may, however, not yet be ripe for making a final decision on the full design of the project. Where the problem under study is large, complex and relatively unexplored, the wise second step will often be a pilot project of field investigation aimed at testing out hypotheses, methodologies, feasibility, and at ascertaining the size of the sample (number of country case studies, for instance) needed to ensure reliable conclusions. The third step would then be the final design of the project followed by its execution. Many of the projects suggested in this report will require very extensive field investigations conducted in a sufficiently uniform manner in a variety of countries to permit comparative analysis at a later stage.

The scope of these research projects can vary of course within wide limits, from one man working several months to a large team drawn from a number of disciplines working for several years. Similarly, the cost can range from a few thousand dollars to several hundred thousands of dollars. When a research project is very large, it is usually possible to break it into smaller components which can be "farmed out" to different research units, the results being later synthesized at the centre. Most of the research projects outlined below are so defined as to lend themselves to a more or less complete investigation by teams, or even by individuals, according to the degree of research support at their disposal.
The research workers themselves will have to be drawn from a variety of disciplines, according to the subject under study. Most of the projects in the field of educational planning call upon the skills not only of educators, administrators, economists and other social scientists, but, in each of these broader categories, of experts with a narrower specialization, such as educational accountants, educational budget officers, comparative educationists, social anthropologists, psychologists, demographers, economists specialized in cost and price analysis, public finance specialists, econometricians, manpower economists and accountants.

There are some problems, however, which research cannot solve. Administrators and political leaders are often obliged to make choices and decisions which are governed by hunches and intuition rather than by the results of scientific investigation. No amount of research can remove this necessity, nor the perplexity which it necessarily entails.

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Out of a large number of topics considered in the course of preparing this report; twenty-five have been finally selected. The number could easily have been doubled or trebled without deviating from our main criterion, which was to consider only projects of direct relevance to the contemporary needs of the educational planner. But priorities imply choices, and the choices here were often as difficult to make as in educational planning itself. The twenty-five projects are classified under six headings: Educational Costs and Efficiency (7 projects), Financing Education (3 projects), Teachers (3 projects), Manpower Aspects (4 projects), The Planning Process (3 projects), and International Aspects of Educational Planning (5 projects). The classification is somewhat arbitrary, since many of the projects cut across two or more divisions. Yet these divisions have a certain logic and convenience, though it should be borne in mind that these different aspects of educational planning are interconnected and should be viewed as such by the educational planner.

All these problems, if they are to be studied realistically, must be investigated "on the spot". Hence the almost monotonous emphasis in the chapters that follow on case studies, and these must be conducted on a sufficiently similar basis to lend themselves to comparative analysis. Also, the countries studied must be selected so as to reflect an appropriate diversity of size, level of development, educational system, experience in educational planning, economic and social structure and other relevant characteristics. Moreover, the research team must have a proper balance of skills and be capable of harmonizing individual efforts—no easy matter where research workers with different disciplinary backgrounds are involved. Lastly, each case study must be clearly circumscribed and focused: if it attempts to cover too much, it may end by covering nothing very well.

These are all difficulties which it would be naïve to ignore. In particular, the social sciences have still much to learn about interdisciplinary team research,
about comparative country analyses, and about inter-institutional collaboration, especially that involving research institutions and personnel in both developing and advanced countries. Nor have they found it easy to orientate their research toward practical and operational issues so as to provide genuine help to those responsible for making decisions and taking action. But it is precisely by coping with such difficulties and overcoming them that the social sciences will advance towards greater maturity and thereby enhance their capability for helping society itself to advance. And in so doing, they are likely to free themselves from the severe and chronic financial handicaps which have retarded their own development for so long.

There now remains one last question: How realistic is it to expect that the research projects recommended here can actually be carried out in the next few years?

One possible bottleneck, of course, is the world-wide shortage of competent social science research workers. But this is an argument which applies to virtually every kind of specialized talent and simply underscores the need to give more serious attention to research priorities. This, in turn, raises the question of whether priorities are compatible with the spirit of true research. The answer is, of course, that while freedom of inquiry, including the freedom to choose what to inquire about, is a prerequisite of creative research, this freedom implies a duty, particularly on the part of social scientists, to weigh heavily the needs of society in choosing the subjects of research. This is, in fact, the raison d'être of applied research as distinct from fundamental research.

But going back to the question of a possible shortage of research workers, it should be borne in mind that the research projects recommended here require the work to be shared by specialists in many professions and disciplines; it need not overburden any one of them. In any event, the requirements for making early and rapid progress on these particular projects can be measured in dozens of research workers rather than in hundreds. In this respect, the enterprise is entirely manageable. The greater problem, perhaps, is to get specialists drawn from different disciplines to work fruitfully together on interdisciplinary problems.

The ultimate bottleneck, however, as many experienced researchers will be quick to point out, is the finance for the job. It may be said, in this connection, that the chronic shortage of funds for social science research, including educational research, has, sometimes, actually encouraged a wasteful use of resources by restricting many research projects to fragmented, trivial—and ineffectual—forays where in fact only a concerted and major effort could have yielded any useful results. Be that as it may, the financial requirements for the projects outlined below appear modest, at least in relation to what is spent every day on the physical sciences and on the educational enterprise itself. Something of the order of two million dollars a year, for three or four years, would probably underwrite a really significant effort along all the lines suggested here. It is true that these twenty-five particular
projects represent but a fraction of the research needed in the field of educational planning and development. But if as much as ten million dollars a year in all were devoted to research on educational planning in the course of the next few years, divided among a number of competent research organizations and wisely spent, the results could be spectacular. The odds are promising enough, and the stakes high enough, to warrant the gamble—if gamble it be.
CHAPTER II

EDUCATIONAL COSTS AND EFFICIENCY

We begin with costs, which are a matter of major concern to educational planners, because money is, together with manpower, the principal factor limiting educational development. Yet the shortage of reliable cost data and the inadequacy of analytical techniques are a major handicap to educational planning in most countries.

Cost data and cost analysis serve essential purposes: they make it possible to appraise the comparative merits of alternative ways of pursuing the same educational tasks, to determine alternative patterns of allocating fixed educational resources between different levels and sectors of the educational system, to assess the financial merits or demerits of changes and innovations, to test the efficiency of established educational practices, to judge the economic feasibility of educational plans and the aptness of individual projects. Cost analysis is, in fact, the principal means for assessing the efficiency of an educational system, a problem which today confronts every nation and every educational administrator. For scarce resources—teachers, pupils' time, buildings, equipment and finance—are often used inefficiently and ineffectively. And while some forms of waste, such as high dropout rates and lavish buildings, are obvious, others, such as inefficient teaching methods, obsolete or irrelevant curricula, half-used facilities, bad administrative procedures, are often much less apparent and can be brought to light only by cost analysis.

It is often assumed that any cost-increasing change in education inevitably improves the results. This, however, is a misleading half-truth, for, in fact, the money might often be spent better in a different way. Not nearly enough critical attention has been paid to factors which greatly affect aggregate unit costs, such as the pupil/teacher ratio, the size of schools, the variety of the curriculum, and the yearly number of hours of instruction per pupil. Sometimes the introduction of new teaching technologies, such as television or programmed instruction, or a new organization of the teaching process, such as team teaching, may increase the educational results at a smaller cost than would be involved in merely spending more on the conventional methods. Again, the performance of certain training tasks outside the school rather than inside may give quicker, cheaper and equally good results. Comparable effects may be achieved by reorganizing teacher training, teacher careers and salary structures so as to put a premium on quality and performance. Clearly, all these alternatives must be examined in terms not only of costs, but also of results, both qualitative and quantitative, for these are but two sides of the same coin.
The seven projects relating to cost analysis in this chapter deal with several different aspects of education. They all require close collaboration between educators, economists and experienced administrators, with occasional help from other kinds of experts.

Project 1. RAISING PRODUCTIVITY AND REDUCING COSTS IN ESTABLISHED EDUCATIONAL SYSTEMS

This project takes a broad view of a major question that faces every educational planner and administrator: how to get more and better results from the educational expenditures already being made. It calls for an analytical frame which (a) will help to identify the areas and points within an educational system which offer the most promising opportunities for reducing costs and raising productivity, and (b) can provide clues to the specific kinds of changes capable of producing such results without impairing quality.

The study would thus consist essentially in an examination of concrete cases with a view to ascertaining how cost savings have in fact been achieved in the educational systems of both developed and developing countries, and what possible new approaches to this problem would merit further consideration, in the form of experimental testing, for example. Particular attention should be paid to six major objects of expenditure: school construction and maintenance; equipment, textbooks and teaching materials; teacher supply and utilization; administration; drop-outs; and curriculum content.

The project would begin with an examination of available information on a wide range and variety of specific cases in which economics and improved results have actually been achieved in one country or another. Some useful general guidelines might emerge from an analysis of this information. The second stage would consist in a more rigorous examination of a substantial number of these specific cases. In the third stage, proposed pilot projects for testing additional possibilities for cost savings, not already demonstrated, would be formulated. The findings should be set forth in a manner designed to serve the practical needs of educational planners and administrators.

Project 2. DEVELOPMENT AND DISSEMINATION OF IMPROVED METHODOLOGIES OF EDUCATIONAL COST ANALYSIS

The aim of this project is the preparation of a handbook setting out practical procedures in costing for the use of educational planners and administrators. The handbook would explain such problems as the need for clear definition of various cost concepts, the techniques of sampling and of data processing, the pos-
possible sources of error that they entail, the administrative machinery they require, and would compare existing practices on the basis of their merits and demerits. It should start with basic techniques and proceed to the more refined methods applicable in countries where the requisite staff and equipment are available. It should enable educational administrators to compare such matters as current costs per unit in individual schools and in school districts, capital costs per unit, the components of aggregate costs and the respective proportions of these components. This kind of analysis can bring to light deviations from the average, which may prompt useful investigation of the causes of such deviations.

Account must also be taken of trends in unit costs. It is often assumed, without much evidence, that the costs of educational services follow general changes of productivity and prices in an economy. But the prices of mass-produced teaching materials and equipment, for example, may remain constant or even fall while at the same time teacher salaries rise with the general wage level. It is necessary, therefore, to apply the principles of price index construction to unit costs, and to consider how the different components of costs are likely to behave when the educational system and the economy are expanding.

The handbook should make it possible to translate any programme for educational expansion or reform into money or real terms (i.e., costs measured in terms of the actual manpower, construction goods and services and other "real" factors required), or, alternatively, to show which factor combinations are possible within a given amount of expenditure.

Project 3. EDUCATIONAL UNIT COSTS IN DEVELOPING COUNTRIES

Unit costs are a particularly important planning tool, and this project aims at improving both the methodology and the supply of data with regard to unit costs. It might be undertaken in three stages.

The first stage would consist in establishing clear concepts and definitions, and applying them initially in some sample field studies. The essential problem here is to evolve concepts which are both relevant to the practical needs of planners and policy-makers, and lend themselves to practical use with the kind of data likely to be available in developing countries. A clear distinction must be made, of course, between costs measured in current prices, costs measured in constant prices, costs measured in real resources (manpower, facilities, etc.), and costs involving the use of foreign currencies. Government budgets are expressed in current local prices, but measuring cost trends over a period of time requires the use of constant prices. Resource costs become important when the question arises, for example, of deciding what proportion of the nation's qualified manpower or construction capacity would be required to implement a given educational expansion plan, or of assessing the substitutability of one type of educational resource for another to ease a particular shortage. Foreign currency costs are an important
consideration when educational needs must compete with other important national needs for allocations of scarce foreign exchange.

This first stage would also include exercises in gathering and analysing actual cost data in some sample situations, in one or a few countries, including the main components of various aggregate unit costs and some initial comparisons of unit costs for different levels and types of educational activities, with a view to determining the extent of variations and their main apparent causes.

The second stage would seek to establish some cost norms applicable to a particular country for the purpose of identifying cases in which costs deviate substantially from such norms and investigating them. It would also be desirable to establish, if possible, norms for certain prototypes, such as a rural elementary school based on "austere but adequate" standards, an urban general high school, a vocational school and such. As data accumulate, it should also be possible to study the evolution of unit costs in relation to the size of educational institutions and to determine the optimum size. These and many other questions of importance to educational planning and administration may become clearer when more evidence on unit costs becomes available.

The third and last phase would consist in attempting some international cost comparisons. To avoid serious errors and misconceptions, these comparisons would require the application of comparative price indexes, as outlined in Project 9.

**Project 4. APPLYING EDUCATIONAL INNOVATIONS IN DEVELOPING COUNTRIES**

Much experimentation on new educational methods and technologies has been done in recent years, and the results have been encouraging. Innovations such as programmed learning, the use of film, radio and television, language laboratories and team teaching, fresh approaches to teaching modern mathematics and science, and the like are beginning to make their mark. Until now, however, they have been evaluated mainly from the point of view of their educational efficacy. The time has now come to study their economic implications as well, in order to determine their possibilities for use on a larger scale, particularly in developing countries. For many developing countries have simply not the resources to meet their vast educational needs, both quantitative and qualitative, by merely expanding the present conventional methods and techniques of education. Education is in need of innovation just as much as industry, agriculture or medicine.

The study would thus attempt to answer the following questions: In what critical areas of the educational system, informal as well as formal, and of the curriculum could the new educational media be most useful, and what educational
results could be expected from them? How could the new media be most effect­
vatively combined with traditional methods to overcome the shortage of teachers,
facilities and funds? How much would they cost in money and in real resources
compared with conventional methods? What are the main variables which affect
their cost, and under what conditions would they be most economical? What are
the foreign currency costs involved in their use? What practical factors other than
economic costs affect their feasibility?

The first stage of the project would consist in gathering and evaluating the
readily available cost data and other information concerning existing experi­
ments, with a view to assessing, at least tentatively, the economic feasibility of
these new techniques in developing countries.

The second stage would aim at studying in greater depth some dozen or
more significant projects in both developed and developing countries in order to
obtain a more complete view of the problems and opportunities offered by the
new methods.

In the third stage, the results obtained in the two preceding stages would
be applied, in co-operation with educational specialists and planners, to some actual
situations in one or more developing countries specially selected for this purpose,
with the aim of developing plans for the application of these new techniques on an
economically acceptable basis. Such plans might well become the basis for action
projects. It would be important to build evaluation measures into such action
projects so as to gain further, and perhaps more reliable, information on both the
economic feasibility and the educational effectiveness of the various innovations.

Project 5. THE ECONOMIC ASPECTS OF PILOT LITERACY
PROGRAMMES

Pilot literacy programmes are under way or are being initiated in a number
of developing countries as part of a broad campaign to eliminate illiteracy. Unesco
is initiating a series of pilot programmes in 1965. There is also the problem of
sustaining literacy once it has been achieved.

Literacy in this context means something more than merely reading and
writing: it aims at providing the non-school population, or specific groups of that
population, with functionally useful knowledge which can be applied in the inter­
est of both individual advancement and national development. To improve
one’s “literacy” about agricultural or health techniques, for example, may not
necessarily require the skills of reading and writing, though these obviously are
important tools for further learning.

The implementation of these programmes encounters great difficulties
through lack of teachers and of finance. But the major difficulty perhaps is due
to the fact that knowledge on the best ways and means of achieving literacy is far from being conclusive. And it is with a view to developing better knowledge of techniques and planning in this field that pilot literacy programmes are being carried out. One aspect of these programmes concerns the economics of the various techniques and the economic benefits that may result from successful literacy campaigns carried out by different methods.

It is this aspect which forms the subject of the project proposed here. Established or new literacy programmes using different methods of teaching would be examined with a view to estimating their relative costs, in resource terms and in money terms, and to comparing these costs with the observable results achieved. At a later stage, an analysis of costs and results would be built into a number of future pilot literacy programmes in order to provide a better basis for ascertaining the relative merits of different approaches to large-scale literacy campaigns.

Particular attention should be paid to the costing of new educational techniques as outlined in Project 4, and to the possibilities of using “voluntary” efforts and local support so as to mobilize more resources for the purpose. The ultimate aim of the project would be to find the most economical ways of using resources in order to achieve universal literacy, and to select the most propitious conditions for introducing such campaigns.

Project 6. COMPARISON OF ALTERNATIVE METHODS OF VOCATIONAL TRAINING

In view of the importance of vocational training, whether within or outside the formal educational system, for modernization, a major effort is being made everywhere to develop this branch of education. The problem has been approached in different ways, both formal and informal, but there is as yet no adequate basis for choosing between these two main approaches or for determining the best combination of the two in any given situation. An analysis of the vast body of experience accumulated in the past should now prove possible; and it may also prove extremely useful, as the scope for economies, in time and manpower as well as money, seems considerable. Without doubt there is need for several different approaches; the question is: What combination is most efficient and effective in any given situation?

This project would therefore attempt to assess the costs of vocational training, on the one hand, and the results obtained, on the other. This, however, is not always an easy matter. Thus, the costs of industrial training, for instance, cannot always be ascertained from the accounts of even large enterprises, because the training is connected organically with production and the breakdown of costs is often not detailed enough. The problem is likely to be even greater in the case
of smaller enterprises. In addition to the resources provided by the enterprises—manpower, buildings, equipment etc.—grants, subsidies and facilities are sometimes provided by government, both central and local, and by industrial associations and trade unions, and these must be identified and assessed. The government can also provide tax remissions and help by organizing administrative procedures which enable training to be undertaken more effectively. In the case of vocational education in secondary schools the costs are more easily ascertained, but here the problem is to sort out what is vocational and what is general education.

The result, i.e., the output, is relatively easy to measure when the training leads to a defined qualification, but where there is no such objective test the problem is more difficult. In short, there are many difficulties in the way of assessing the relative costs and effects of different forms of technical training, but the huge sums involved and its importance for development warrants a serious effort, despite these difficulties.

Both the ILO and Unesco have had much experience in this field and would have strong interest in contributing useful data and expert knowledge to this project.

Project 7. ECONOMIC ADVANTAGES OF MULTINATIONAL CO-OPERATION IN EDUCATION

It is difficult and exceedingly expensive for developing countries to provide the whole range of educational services and supplies needed for a full-scale educational system. The diseconomies of small scale are especially great in the training of specialized high-level manpower, but they are by no means negligible in the preparation and production of textbooks, equipment and other educational materials. Nor are they trivial where educational innovation is being tested by means of pilot studies. Neighbouring countries may thus often find it cheaper to share facilities and to learn from each other's experiences rather than to undertake independent action.

This project would therefore be concerned, in the first place, with multinational co-operation in developing institutions for training high and medium level manpower. The number of such institutions already in being—including some within large countries serving sub-areas—is large enough to permit some preliminary judgments about their effectiveness. The subjects to be studied would be, first, the cost advantages of such institutions, their quality, then the best methods of administration and financing, of selecting the staff and of choosing pupils, the impact of such institutions on the host country and the Member countries, and the relationships between such multinational institutions and other national institutions in Member countries.
Another part of the project would be concerned with the cost aspects of joint production of textbooks and other educational materials.

This project is closely related to Projects 2 and 3, and the teams working on these two projects would gain considerable knowledge from the investigation of multinational enterprises in the educational field.
CHAPTER III
FINANCING EDUCATION

The fiscal burden of education is considerable: in every country it represents a substantial—and growing—proportion of the national budget. The problems of financing education, whether from public funds or from private sources, are therefore of prime importance to educational planners. How is education, public and private, financed at present? What are the most effective measures for raising educational revenue? What norms can be established with regard to the pattern of educational finance? These are the central issues with which we are concerned here. The three projects in this chapter deal, therefore, respectively with the methods of financing education, the question of how much a nation should spend on education, and the special problems of financing compulsory education.

Project 8. METHODS OF FINANCING EDUCATION: A COMPARISON

The purpose of this project is to answer two basic questions:

a) How is education actually financed today in various countries?

b) What conclusions can be drawn from that experience about the efficacy of various revenue-raising measures?

The best way to tackle these questions is to examine the actual experience of a cross-section of countries. The first stage would thus consist in finding out the detailed pattern of educational income from both public and private sources, on the one hand, and the detailed pattern of expenditure, on the other. Wherever possible, these data should distinguish between national, regional and local revenue and expenditure, because the flow of funds from the more developed to the less developed areas is of particular importance to educational policy. It is also important to identify educational expenditures which fall under other budgetary headings, such as defence, agriculture, health etc., and such unconventional sources of educational finance as lotteries, loans, tied taxes etc. Lastly, it will be necessary to examine the elasticity of the yield of various sources of revenue, including private fees and donations, in response to changing income, and to relate the fiscal structure of education to the entire fiscal system of a country.

In the second stage of the project, the data thus obtained would be used to trace guidelines for enabling governments to determine what are the best ways of financing education and what is the most appropriate relationship of educational
outlay to other public outlays on social services. There is a certain degree of competition and complementarity between education and health services, for instance, which merits more detailed examination.

This project requires a thorough analysis of government accounts, something that has not yet been undertaken on a wide scale, although the O.E.C.D. convention on this matter has already helped to make some progress in this field. With the gradual improvement of statistical material relating to government accounts, it should be possible to make more detailed comparisons of the pattern of government revenue in different countries and of the fiscal structures of the various educational systems. Incidentally, this work will also be necessary for Projects 2 and 9.

Project 9. HOW MUCH SHOULD A NATION SPEND ON EDUCATION?

The question of how large a proportion of its resources a country at a given level of economic and social development should devote to education is a major issue facing educational planners and political leaders everywhere. Naturally, there is no mathematical formula to answer this question; beyond a certain minimum, the range of choice is wide. But comparisons can be useful in helping countries to make decisions in the light of experience, current and historical, of a number of countries at different levels of development. This project would aim, therefore, at developing better techniques for relating the educational effort to Gross National Product and to the efforts made in other sectors of national activity, and at comparing educational efforts and patterns in a number of countries at different stages of development. This, it is hoped, should make it possible to suggest an order of magnitude for the educational effort which a given country would have to make in order to reach the next stage of development.

One of the first tasks would be to develop criteria for judging the degree of priority to be given to education as against other forms of expenditure—private consumption, social welfare, defence and so forth. The basic tool of economic and social planning is usually macro-economic estimates of the present size and distribution of Gross National Product, and of its future size and distribution as determined by projections and forecasts. Education will have to be fitted into this picture, and every educational plan will require an exercise of this type to trace sources of expenditures and make relevant comparisons with other sectors of the economy.

The first stage of the project would thus consist in the collection and analysis of data relating to educational expenditures in both absolute and relative terms, relative, that is, to other sectors of national activity.

The second stage would be concerned with elaborating "norms" of expenditure by relating outlays on education to outlays on other economic and social sectors. The problem is to decide what level and proportion of total resources
seem appropriate to a given situation. Here the relevant factors will be not only the balance struck in various countries between education and other social and economic sectors, but also the amount of lag in education to be made up, the social pressure for spending on education, the proportion of the population of school-age in the total population, and the price of education in relation to that of other services and goods.

In fact, the working out of these relative prices of education in different countries is essential to any reasonably accurate comparison of how much different nations spend on education compared to other things. The prices of educational goods and services vary widely from country to country and do not necessarily, or even often, move with the general price level. But what is even more important is the relative prices. For instance, the absolute price of a primary school teacher in Nigeria may be much lower than that of the corresponding teacher in England, but the relative price, relative, that is, to other services and goods in the two countries, may be much higher in Nigeria than in England. As long as such relative prices have not been worked out, all international comparisons of educational outlays will remain invalid. The work done by Milton Gilbert on goods and services in general is a pioneer study which can serve as a model for a comparable study on the relative prices of education*.

Project 10. FINANCING THE EXPANSION OF COMPULSORY EDUCATION

The expansion of compulsory primary education is a major target of all developing nations. The right to universal free primary education is guaranteed by The Declaration of Human Rights and many national constitutions, and the conferences at Karachi, Addis Ababa and Santiago drew up programmes for the regional implementation of this guarantee.

However, the problems of financing these programmes have become acute. Consequently, many governments would welcome a study setting out the difficulties encountered in various countries and the methods adopted to overcome them. The project would thus consist in an intensive study of the ways in which programmes for the achievement of universal compulsory primary education have been financed in a number of selected countries. Attention would be paid, in particular, to ways of meeting capital and current costs, to unorthodox methods of finance, to local participation in kind, voluntary or otherwise, to any co-ordination of compulsory primary education with community development and agricultural services, to the actions of other organizations, such as the armed forces, for instance, and to the methods of remunerating teachers. Such comparative studies would provide useful insights into the problems of financing compulsory primary education.

CHAPTER IV

TEACHERS

Teachers are, of course, the most crucial—and scarcest—resource in education. Of the many aspects of this broad subject that merit research, we have selected three which are particularly important and urgent. The first deals with the major factors that determine the supply of and the demand for teachers, the aim of the project being to identify policy alternatives and possible measures for coping with imbalances in the supply of and demand for teachers. The second project examines the possibility of improving teacher supply through broadening educational and employment opportunities for women. The third project represents one possible approach to the vital question of the role of education in rural development, that which consists in inquiring into the functions and role of the rural teacher.

Project II. BALANCING THE SUPPLY OF AND THE DEMAND FOR TEACHERS

Past studies of teacher supply or demand, though useful for particular purposes, have usually been piecemeal and have ignored the interaction between supply, demand, and teacher utilization. This project aims at examining this aspect of the teacher problem within a wide framework with a view to devising measures capable of ensuring a better balance between the teacher demand and supply. Such a study would afford an unusual opportunity for co-operation between research workers and teacher organizations concerned with strengthening the teaching profession. The World Confederation of Organizations of the Teaching Profession, for instance, has undertaken a series of brief studies of teaching conditions in Africa, Asia and Latin America which could be very useful to this research project. Other studies on this subject undertaken under the auspices of Unesco and ILO could also provide valuable information.

It should be noted that, since teachers are usually the largest single group of qualified manpower in any country, this study might also throw useful light on the demand, supply, and utilization of qualified manpower in general.

The study would be in two stages. The first would consist in examining, for a number of selected countries, the past growth of the teaching profession, in particular, the measures taken to expand the supply of teachers and the outflow of teachers to other occupations, especially administration and politics. In this
connection, it would be important to study the socio-economic conditions and status of teachers (which affect supply and turnover), the social and geographical (i.e., urban v. rural) origins of teachers at different levels as well as their educational background, problems of unemployment and of "double employment" among teachers, opportunities for advancement through in-service training and on the basis of performance, the attractiveness and unattractiveness of the teaching job itself, the training of head teachers and their functions.

In the second stage, the date thus obtained would be analysed with a view to devising measures aimed at improving the quality of teaching services and the balance between supply and demand for teachers through a better utilization of the teaching force. Here are some of the questions which the study would seek to answer: What is respectively the minimum and the desirable level of qualifications of teachers at different levels of the educational system? How can teachers keep up-to-date with new knowledge and new educational techniques? How should they be trained in order to cope with the flow of educational innovation? How can the rewards and attractiveness of teaching be increased and the demand for teachers be reduced by a more effective utilization of teachers, especially those of the highest ability? How can the demand for teachers be kept in balance with other demands for people of similar ability so as not to deprive the community of qualified manpower in sectors other than education? To what extent is the recruitment of the right kind of people into teaching affected by social and institutional barriers, and to what extent by economic barriers? What practical measures can be taken to reduce these barriers?

The methods by which particular countries have successfully attacked some of these problems would be illustrated by specific examples which could serve as a kind of model for other countries facing similar problems.

As already mentioned above, this project could throw some light on the training and utilization of high-level manpower generally and prove useful for similar studies of other professional groups, as proposed in Project 16.

Project 12. THE EDUCATION OF WOMEN AND THEIR PLACE IN THE TEACHING PROFESSION

In every country women represent a major potential source of teachers. But the extent to which this source is actually tapped depends on the educational opportunities available to girls, and these in turn are closely bound up with the general problem of the status of women in society, in particular, with the employment opportunities available to women in a given society. The more advanced a society from the point of view of women's emancipation, the greater the possibilities of using the womanpower for economic as well as educational development.
Most developing countries favour in principle improving the social status of women and are agreed that education is the principal means to this end. But the implementation of this principle raises some very difficult questions. For one thing, many developing countries have not yet succeeded in implementing the principle of compulsory primary education with regard to boys; a massive enrolment of girls would create insuperable difficulties, at least in the initial stages. For another, many developing countries are already seriously troubled by the unemployment of male elementary school leavers; would not the problem become much worse if there were a massive influx of girls into primary education? Or would the advantages, such as the acceleration of social development resulting from the education of young wives and mothers, outweigh these disadvantages? Then there is the question of what the education of girls should be, what they should be taught and for what purposes. These are, of course, basic questions of social policy which have far-reaching implications for the development and utilization of human resources. The project is not intended to answer all these questions, but it could help to clarify them.

The focus would be naturally on women teachers, on the role women could play in the expansion of education, but this role would be viewed in the larger context of the role which the education of women plays in economic and social development in general. In fact, a study on the training and career of women in the teaching profession could throw much needed light on the professional employment of women in general, since the teaching force usually includes a higher proportion of women than any other profession.

The project could be divided into three stages. The first would consist in ascertaining certain general facts about the education of women in a number of selected countries. What is the proportion of women receiving education? How does the education of girls differ from that of boys? What role does co-education play in any given country? What is the place of women in the occupational structure?

The second stage would concentrate more particularly on women teachers, ascertaining numbers, relative salary levels, status, conditions with regard to marriage, pregnancy leaves, children and so forth, and the place of women as school principals, a key role which is of special importance in this context.

The third stage would be concerned with the obstacles to the employment of women in education. How far has the progress of women's emancipation succeeded in providing more teachers? What problems arise for education in this connection? To what extent have obstacles been overcome and incentives increased with regard to the employment of women in education? The answers to these questions could be provided in the form of concrete examples illustrating cases of difficulties which have been successfully overcome.

The aim would be to produce a comparative study on conditions, policies and practices relating to the employment of women as teachers and administrators.
in education, and to identify the measures taken by the various countries to raise the supply of teachers by putting emphasis on the training and employment of women. The work implied by such a study would involve a series of thorough interviews of women teachers and group discussions among women aimed at finding out the prejudices and special conditions which affect the employment of women in general, and in education in particular.

Project 13. THE VILLAGE SCHOOL TEACHER AND RURAL DEVELOPMENT

Many economists have come to believe that rural development—and the increase in agricultural productivity which it brings in its wake—are a prerequisite for the take-off in sustained industrial development. The whole process of rural development is so vast and complex, especially in a subsistence economy, that it is difficult to approach it directly and comprehensively without being superficial and banal. However, broken up into its components, the problem becomes more manageable, and the purpose here is to approach it from the educational angle, more precisely by viewing it through the eyes of the village teacher. For it is he who, for good or ill, determines the part that education will play in the local community, and therefore in rural development. It is on the quality of his work, its relevance to rural problems, the degree of support he gets from inside and outside the village that rural development must substantially depend. To be effective, rural schooling must go hand in hand not only with other educational forces but also with other essential ingredients of rural development, such as land reform, agricultural credit, health and transportation.

The focus of the work proposed here is change in the village and the part the teacher plays and could play in this change if he were suitably strengthened in his work. What part does the teacher play in agricultural development? Does he, perhaps unwittingly, alienate bright village youngsters from their environment? How much validity is there in the thesis that education unfits people for rural life rather than fitting them for it?

The study would start with a diagnosis of present conditions in what may be considered as typical villages. What kind of person is the village teacher? What is his social and educational background? What is his position in the community? What is his religious and political status? What are his activities apart from teaching? What are his working conditions, his advantages and his handicaps? What are his opportunities for advancement and his employment options? How and what does he teach the children? Who prescribes it? What facilities, equipment and material does he have at his disposal? What are the results of his work, what effect does it have on his pupils and their parents? What part does he play in adult education and other community activities? How is his work co-ordinated with other programmes aimed at rural development?
Who is his supervisor, how is the latter selected and trained, and what are the relations between the two?

The analysis of the present conditions would lead to the next stage—the consideration of the measures which need to be taken in the future to improve the status and effectiveness of the teacher, redefine his role in rural development, support his efforts more forcefully and integrate them with the other factors of rural development.

The project would thus involve a study and assessment of a number of contrasting situations, some typical ones which reflect prevailing conditions and problems, and other rather unconventional ones where special measures have been taken to strengthen the village teacher’s rôle and improve the effectiveness of rural education as a force for rural development. Consequently, the investigation has two sides: one concerned with analysing typical and non-typical villages, the other with evaluating the results and possibly initiating further experiments.

It should be stressed that this vast subject of rural education has already received a great deal of attention from Unesco, FAO and others. One of the aims of the project should be, therefore, to see what lessons can be drawn from these efforts. The object is not to devise specific formulas or ready-made solutions, but rather to raise some useful questions, to gain new insights and to get, if possible, a new perspective from the viewpoint of the educational planner rather than that of the specialist.
CHAPTER V
MANPOWER ASPECTS

One of the important tasks of education is to supply manpower of the right kind and in the right numbers for economic and social development. Manpower projections constitute, therefore, one of the main criteria for determining the priorities between levels and types of education which should govern the quantitative and qualitative evolution of the educational system.

A considerable body of expertise has been built by manpower planners on methods of projecting future skill requirements. These requirements may, on certain assumptions, be translated into terms of educational output and thus serve, at least partly, as criteria for establishing educational targets. The task of the educational planner is to establish such targets taking account not only of manpower needed for economic growth but also for social and cultural development of the country.

The four projects contained in this chapter are aimed at improving the techniques of manpower analysis as an aid to educational planning. The first aims at a critical evaluation of the present techniques of manpower projections. The second is concerned more particularly with middle-level technical skills, and the third with high-level skills. The fourth project deals with the popular demand for education and with the problem of bringing it into balance with the society’s actual pattern of educational needs.

Project 14. METHODS OF MANPOWER PROJECTIONS: A CRITICAL EVALUATION

The manpower approach to educational planning rests on the assumption that the changes needed in the composition of the labour force can be derived from projections of economic and social development, and that these changes are then brought about by a corresponding adaptation, both qualitative and quantitative, of the educational system. However, there are several methodologies for estimating future manpower needs, and the real problem is to ascertain which is the most suitable in given circumstances. Some methods rely on estimates derived from projections of the future economic structure, others proceed by extrapolating future changes from past trends, still others derive their estimates from employer interviews, or from an analysis of the occupational structure of typical firms or of other countries. Each of these methods has its merits and its limita-
tions, and the purpose of the project is to examine them critically in order to provide the best possible advice to countries at different stages of development—and of statistical sophistication. In short, the project seeks an answer to the question: What lessons can be drawn from the body of experience now available?

The work would be divided into two stages. The first would consist in the examination of the literature available on the subject and the identification of a variety of concrete cases in which different methods of manpower projections have been used. The second stage would be a detailed and critical evaluation of these cases with a view to ascertaining how the method worked, where and why it succeeded, and where and why it failed. A certain amount of field work would be necessary to check the results. This evaluation could best be made in collaboration with ILO, O.E.C.D. and certain aid agencies and individual experts who have had substantial experience in this field.

**Project 15. THE EDUCATIONAL CONTENT OF MIDDLE-LEVEL SKILLS**

Among the various groups of skilled manpower required for development and modernization, that of middle-level personnel is numerically by far the most important, and in many countries there are shortages of certain types of these middle-level technical skills. The aim of this project is to help overcome these shortages as quickly and inexpensively as possible by relating educational and training programmes more efficiently to the skills and other competencies actually required to perform various jobs effectively.

The problem consists essentially in ascertaining:

a) the knowledge and skills that are *effectively* required for the successful performance of particular types of jobs, as distinct from the knowledge and skills that are *conventionally assumed* to be required, and

b) the type of education and training really required for imparting such knowledge and skills, as distinct from the type of education and training which is *conventionally assumed* to be required.

The aim would be to provide an educational basis more in keeping with the real demands of particular jobs, and to evolve more rapid and effective methods of training for these jobs than the conventional methods used at present.

The project would be divided into three stages. The first would consist in identifying the key sectors where skill shortages are likely to be most acute. This could be done by a thorough statistical examination of the distribution of skills in a number of selected countries with different levels of G.N.P. and a different sectoral distribution of manpower (as between agriculture, industry, and serv-
ices, for instance), coupled with an examination of the educational background of the different skills. This procedure would lead to the identification of skills which are likely to be in short supply in developing countries.

The second stage would consist in breaking down each of these skills into its components in order to determine the real qualifications required for the effective performance of a given job. This would necessitate the actual study of the jobs and of the component skills they require—or not require—based on interviews of employers, supervisors and workers, and on other techniques of job analysis. The object would be to propose new patterns of staff that might be easier to produce and better suited for particular jobs, as well as more adaptable to job changes.

The third stage would aim at determining the kind of education and training required for these new patterns of middle-level personnel. One way of doing this would be by examining the educational and training background of people who perform a given job well and of those who perform it badly. But in general, the third stage would consist essentially in translating into educational terms the results obtained in the second stage.

Project 16. ADAPTING PROFESSIONAL TRAINING TO THE NEEDS OF DEVELOPING COUNTRIES

Many developing countries have adopted, more or less automatically, the professional training programmes and standards which obtain in the advanced countries. It may be doubted, however, whether these programmes and standards are appropriate to the needs and resources of the developing countries. To take the medical profession, for instance, brain surgery or skin grafting are of far greater relative importance in a highly-developed country than in, say, an African country where the main problem is how to cope with the major diseases. The average type of doctor needed for Africa is quite different from that needed in the U.S.A. or France; he may require more or less training than his counterpart in these more industrialized countries, but probably does not require precisely the same kind of training. Quite possibly, also, he requires more para-medical help than his American colleague. Similar considerations apply to other professions, such as engineers and agronomists. It therefore becomes necessary to review the methods and standards of professional training for developing countries, and this project aims to do for high-level personnel what Project 15 is intended to do for middle-level personnel.

The work would fall into two parts. First an assessment must be made of the growth of professions and sub-professions in a number of developing countries, and of the effect this growth has had on educational and training programmes. A number of studies have been made on the education of engineers, scientists and
teachers, which could serve as models. In the second stage, an assessment would be made of the adequacy and appropriateness of the training in various circumstances, and of the effect of para-professionals on the effectiveness of and qualification requirements for full professionals. This assessment should be made by or with the help of the professional groups themselves so as to involve them in a critical evaluation of the appropriateness of their training, standards, and patterns of utilization.

**Project 17. ADJUSTING POPULAR DEMAND FOR EDUCATION TO THE PRACTICAL NEEDS OF NATIONAL DEVELOPMENT**

Educational planning must take into account not only future manpower requirements as seen from an objective national point of view, but also the popular demand for education based on the subjective desires of individuals. If the two fail to match, public policy must try to bring them together or else serious waste will ensue. It is generally assumed that in most developing countries the demand for education is for all practical purposes unlimited, that if more schools were available they would immediately be filled. But this is not always the case. Sometimes, for example, technical schools are built and staffed but not filled, simply because technical education is not popular in that particular country and parents, perhaps for status reasons, prefer more general or classical education for their children. The fact is that each country has its own pattern of demand for education based on its particular social, economic and cultural traditions, values, and prejudices, and this pattern is not necessarily the one which the national development requires. Thus, if the educational system is adapted primarily to social and cultural demand, the resulting pattern of school leavers and graduates may not correspond to the pattern of skills required for economic growth and social development. On the other hand, if the educational system is adapted primarily to the needs for skilled manpower with little or no regard to the private preferences of parents and students, some of its capacity may just lie idle, and there may be considerable public dissatisfaction.

The problem then is to find out

a) where private demand and economic needs deviate most seriously, and

b) what can be done to alter private demand so that it accords more nearly with national development needs.

The first thing, of course, is to determine what methodologies can be used to assess private demand, bearing in mind the important distinction between the overall demand for education and the pattern of specific demands for different types of education and training.
OVERALL DEMAND

There is, of course, a reciprocal relation between education and economic growth; each stimulates the other. Hence in projecting overall educational demand one must take into account the income elasticity of demand for education and also the impact which the expected rapid increase in the number of educated people will itself have on accelerating the total demand for education. Thus such questions as the following warrant study. What is the income elasticity of demand for education in countries at different stages of development? What can be done to damp down overall demand when it outruns any possible supply, or, on the contrary, to stimulate demand for education among backward groups or in backward areas? Education within a country tends often to be concentrated in certain areas or among certain groups, and the social change which arises from migration or from the economic development of certain areas may produce sudden spurts or lags in the demand for education. Thus, certain trends may have to be strengthened while others may have to be inhibited by public policy.

The research would then consist in an attempt first, to forecast what is likely to happen in the absence of any major policy action, what, for instance, would be the cumulative increase in the total demand for education as a result of economic and educational growth, and second, to identify the major policy tools for strengthening, retarding and guiding various tendencies in popular demand for education. The research would thus imply an examination of the various socio-economic factors which affect the total demand for education—demographic trends, social change, including the rate of urbanization, shifts in family incomes, shifts in occupations, educational experience of parents and the like—in order to ascertain which of these factors lend themselves readily to measurement.

One aim is to evolve a practical methodology to assess present and future demand for education. Such a methodology has been developed to a certain extent for the needs of the advanced countries, but it requires modification to fit the circumstances of developing countries. A second aim is to develop methodologies for appraising and forecasting the impact of various policy measures on reducing or stimulating the overall demand for education. The research should, therefore, be initiated in one or two developing countries where the difference between supply and demand is particularly accentuated. It might well be carried out as an adjunct to educational planning in such countries.

THE PATTERN OF DEMAND

As already mentioned, the demand for education reflects social traditions and prejudices as well as present and past conditions. The kinds of education that are currently in demand correspond more nearly to present economic and social opportunities than to future openings which will be created by economic and social changes now in process and of which neither parents nor pupils are
likely to be aware. An important task of educational planning is, therefore, to guide the demand for education in accordance with tomorrow's realities. The problem for investigation is how this can be done in practice.

Here, as in the case of overall demand, the work would consist in ascertaining what is likely to happen in the absence of any policy action, what, theoretically, are the possible measures capable of shifting demand, which of these measures have been tried and what effect they did have. Would a reorientation of educational capacity prove effective? If new technical schools and new agricultural extension training schemes are established, will they find pupils? If not, what incentives can be devised to raise the demand for this type of education and training? What would be the cost of these incentives and what effect would they have?

This project would be especially well suited to a country in Asia, where the problem of "educated unemployed" is common, and to a country in Latin America, where the traditional pattern of educational demand is conspicuously at variance with the realistic needs of economic and social development.
CHAPTER VI

THE PLANNING PROCESS

As was emphasized at the outset of this report, educational planning is something more than the elaboration of targets on paper: if it is to affect the course of events, it must involve not merely planning technicians, but those who have the power of allocating the resources for its practical implementation and those who have the charge of implementing it. Educational planning is not something that can be created overnight; like any other social process, it must grow through a series of stages, and cannot even begin to have any effects until its essential foundations are established. These foundations comprise not only good working tools in the form of sufficient facts and methodologies, but also favourable environmental conditions—effective organizational and administrative arrangements, competent staff, and, above all, strong support of political leaders and public opinion born of the conviction that education is important and deserves high priority.

The three projects in this chapter deal therefore with educational planning itself. The first would be a series of case studies (two of which are already being carried out by IIEP) of the actual experience of a number of selected countries in educational planning. These comparative studies would cover the political and administrative background, the extent, if any, to which educational planning is integrated with economic planning, the structure and organization of the planning machinery, the means by which priorities are established, decisions taken and plan implemented. They would be carried out within a well-defined framework in order to enable comparisons to be made. The aim of the project is to provide a basis for valid and useful generalizations about the planning process itself and for an interchange of experience among countries.

This first project would furnish the raw material for the two following ones. One would attempt to uncover and describe the evolution of the educational planning process, the other to analyse and define the organizational and methodological aspects of planning.

Project 18. COUNTRY CASE STUDIES

Clearly, the richest source of new knowledge about educational planning is the actual experience of countries which have tried it. Though requiring a solid theoretical background and a good methodology, educational planning is essen-
tially a pragmatic process of trial and error, and every country has much to learn from the successes and failures of others. By examining thoroughly a number of cases, it should be possible to identify the essential conditions required for successful educational planning as well as the conditions which are inimical to it. Some of these adverse conditions may be manageable, others not. It may thus be possible to judge whether, in given circumstances, educational planning has a real chance of succeeding, or whether it is just a waste of money and efforts.

The case studies should be broad in perspective, largely taking into account the political, social and economic factors which have a bearing on education. The broad framework within which to conduct such studies might be as follows.

First, the background to educational planning, comprising an analysis of the events which led up to the adoption of planning, and the constitutional and legal position of education. Three fundamental questions which will have to be studied in this connection are the relative importance of political and administrative stability, of public participation in and support for the plan, and of leadership for the eventual success of the plan. It may also be of interest to consider examples where, in the absence of adequate political leadership, administrators have assumed political roles.

The second series of problems would deal with the relationship of educational planning to economic and social planning. Consideration should be given to examples of isolated educational plans having no links with economic planning, and also to plans with no adequate financial arrangements. To what extent has the link between educational and economic planning affected the success of the former? What machinery and techniques can be used to achieve or strengthen this link (e.g., budgetary means)?

The third series of questions would be concerned with the process and methodology by which objectives and targets are established. What relative weight has been given to political and technical factors in setting the targets? To what extent has the interplay of these two factors contributed to the success or failure of the plan? What is the role of detailed technical preparation and how does it affect the implementation of the plan? To what extent do very high or very low targets stimulate or inhibit growth, whether they be long-term or short-term, local, regional or national, or relating to such aims as meeting manpower requirements, or the education of women, or teacher training, or the quality and standards of education? A particularly important question in many countries is whether and how the private sector of education has been brought into and affected by educational planning, and whether the university community has played a role in it. Another matter for study is the balance between the various levels and types of education and their respective costs. It would also be necessary to examine in detail the technical exercises and methods used to establish targets and ascertain how far the targets thus established are realizable.
Another series of questions would deal with the structure, organization and administration of the planning machinery, its location, whether it is autonomous, advisory or executive, how accessible it is, what its links are with economic planning, with the ministries concerned with any sort of education or training, and, above all, with the centres of power where the final decisions are taken. Attention would also be paid to administrative personnel and its training, and to the role of external assistance in these matters.

The last series of questions would be concerned with priorities and the implementation of plans. What are the policies, objectives and strategy governing the choice of priorities and their programming? How much attention is paid to practical realities, such as the scarcity of personnel and of financial resources, or the quality of personnel charged with the implementation of the plan? How far has the availability of financial resources affected priorities? How realistic is the teacher training programme? How do the priorities implied in the programme actually evolved compare with the priorities originally drawn up in the plan? What is the extent of analysis before the approval of the project? What are the criteria for judging the success of the plan? How are the results of this appraisal fed back for the future improvement of the plan?

It would be necessary to measure the progress of the educational system under the plan—enrolments, age distribution, wastage—in relation to such indicators as the cost per school leaver or graduate and the output of the system. The number of classrooms and their utilization, the regional breakdown of costs, output etc. must also be taken into consideration. A basic question to be studied is the extent to which this progress is attributable to planning. It would also be necessary to examine the ability to support the existing programme with special reference to the role which external assistance could play in this respect.

The practical realization of this project would fall into three parts. The first would consist in a thorough and extensive examination of all relevant literature—educational and economic plans, country reports, documentation on the historical, political, economic and social backgrounds to educational planning and statistical facts. This would be followed by field work and interviews of people involved in all the stages of the planning process. These interviews would have to be conducted within a systematic framework to be developed by a pilot survey. The information and data thus obtained would then have to be evaluated and put in the form of conclusions.

Two country case studies, one on France and the other on the U.S.S.R., are already being carried out by IIEP, which hopes to undertake, in co-operation with other organizations, similar studies on a number of developing countries. Such studies are fundamental to several of the projects suggested in this report, and they provide the basis and the raw material for the next two projects.
Project 19. THE EVOLUTION OF THE EDUCATIONAL PLANNING PROCESS

This project is really a continuation of the previous one and consists essentially in rationalizing the data, information and conclusions derived from the country case studies with a view to discovering the morphological evolution of the educational planning process. Like any other social process, educational planning evolves gradually through a series of stages: it must walk before it can run. But this process has yet to be clearly described, and meanwhile no criteria are available to allow a country to judge how far it has progressed and what steps it now needs to take to progress further.

The aim of this project would be to remedy this situation and, by revealing the gradual evolutionary stages of the educational planning process, provide criteria for assessing the progress achieved—what steps must be taken before planning proper can be started, what is the stage reached at any one moment, and what steps have to be taken in order to reach the next stage. No doubt, the criteria thus evolved can never be wholly objective or "scientific", but certain broadly agreed judgments, built on a good deal of past experience, could perhaps be arrived at, and these would be of great value in enabling aid agencies as well as governments to judge their progress and assess the value of their work.

Project 20. ORGANIZATION AND ADMINISTRATION OF EDUCATIONAL PLANNING

This project is another extension of Project 18, but its aim is to define, on the basis of country case studies, the organizational arrangements and administrative procedures best suited for a sound formulation and successful implementation of educational plans. It would again consist essentially in drawing the logical conclusions from the data and information contained in the country studies. If basic country case studies were not available, it would be necessary to undertake a series of special case studies focussed on administrative and organizational aspects of educational planning. These would deal, in addition to the questions raised in Project 18, with such problems as the geographical aspects of planning, i.e., the co-ordination between centralized and regional planning, the mechanism needed to ensure that sufficient attention is paid to educational innovation, research and development, and the use of extraordinary procedures as distinct from normal ones in the implementation of the plans.
CHAPTER VII
INTERNATIONAL ASPECTS OF EDUCATIONAL PLANNING

The last decade has witnessed a dramatic increase in the extent and variety of external assistance in the educational field. This assistance, while representing in most cases but a fraction of the recipient country’s total educational effort, can sometimes have an influence out of all proportion to its magnitude.

This is especially the case of aid for educational planning. Much of the impetus for planning education has come from international organizations and bilateral aid agencies. Unesco, in particular, has made a major effort in this field through its regional conferences and training programmes, its advisory help on planning to Member States, more recently in co-operation with the World Bank, and not least by taking the initiative in establishing IIEP and regional training centres for educational planning.

One of the important tasks of educational planning, in addition to achieving a better use of the country’s own educational resources, is to make external assistance for education more efficient and more effective. Such assistance takes, of course, many different forms, such as supplying teachers and equipment, making loans or grants for facilities, awarding fellowships for studies abroad and so forth. The projects contained in this chapter relate to these particular aspects of educational planning.

Project 21. STRENGTHENING EDUCATIONAL PLANNING THROUGH EXTERNAL ASSISTANCE

The aim of this project is to ascertain how external assistance may be used most effectively for strengthening educational planning. There is little doubt that useful lessons can be drawn from the rather substantial body of experience accumulated during the past half dozen years or so.

The main questions which the study should seek to answer would be the following. What are the most appropriate and useful functions of short-term and longer-term educational aid missions respectively, and which are best suited to what purposes? What are the best ways of helping to develop personnel for educational planning? How can outside agencies best help in building statistical, research and other services required for effective planning? What other outside help would be useful in strengthening educational planning? Of what value are
periodic inter-country reviews and confrontations as a means of evaluating and improving each country's planning activities, and how can the lessons of each country's experience best be made available to other countries? What are the problems raised when a country receives assistance from more than one agency, and how have these problems been dealt with? What is the order of magnitude of future requirements for educational planning experts in each major region of the world, and how can these needs best be met?

The project would be carried out in two stages. The first would consist in a thorough study of all the documentation available on the subject with a view to finding useful clues and examples. This would be followed by field investigations in a few selected countries focussed upon the role external assistance has played in the initiation and growth of the process of educational planning. These field studies would have to be carried out in close co-operation with both the country officials and the donor agency officials concerned. Such analysis could lead to the emergence of some useful guidelines for both the recipient countries and the external aid agencies.

This project could be carried out most efficiently within the context of country case studies providing a broader view of external educational assistance, such as those suggested in the next project. If this were not possible, the study would have to be confined to this particular topic and carried out in a number of selected countries.

Project 22. IMPROVING THE EFFECTIVENESS OF EXTERNAL AID BY EDUCATIONAL PLANNING

In the opinion of many experienced persons, educational planning is one of the principal means of improving the effectiveness of external assistance. It reveals the strategic points at which the application of external assistance and resources can exert the greatest effects, and thus provides a better basis for establishing foreign aid priorities; it is the best and perhaps only means of ensuring that foreign aid is effectively and harmoniously fitted into the recipient nation's own educational development effort and priorities; and lastly, it, and it alone, can provide the basis for co-ordinating educational aid from several sources. This project is intended to explore these propositions and, if possible, to discover some useful guidelines for improving the effectiveness of external aid through educational planning.

The first step would be to draw a comprehensive picture of the educational assistance received by a number of sample countries in recent years, and to identify the factors that made for difficulties as well as those that were helpful. This would be followed by a more intensive study of a number of specific external assistance projects, or clusters of similar projects, in these same countries. Some
of these projects would be selected on the grounds that they are generally considered as having been successful, others on the grounds that they are considered to have been relatively ineffective. A thorough analysis of these projects, carried out with the help of both local and external assistance experts familiar with them, would seek to identify, for the sake of future guidance, the principal factors that contribute to or inhibit success in such projects.

Such examination of the experience of a number of selected countries could provide answers to several important questions. For instance, what are the psychological, political and institutional problems that must be taken into account in planning external assistance? To what extent has external aid helped in bringing about desirable changes in the content and structure of the educational system? What was, is, and is likely to be the role of expatriate teachers? In cases where external aid has been provided from several sources, what co-ordination, if any, has been achieved between them? What impact, budgetary and other, has external aid had on the receiving countries? What effect did it have on the establishment and development of educational planning? And how did educational planning, in its turn, contribute to a more rational pattern and utilization of foreign aid? Most important, perhaps, what particular kinds of aid seem best suited to given situations, and what are the crucial factors in the success of external aid projects?

If some light could be thrown on questions such as these, the future effectiveness of external assistance and its integration with the plans of recipient nations might be improved. A prerequisite for carrying out this delicate and difficult project would be to have the close co-operation and confidence of donors and recipients alike.

Project 23. ADAPTING IMPORTED EDUCATIONAL MODELS

One of the most difficult problems for developing countries is that of adapting imported educational models, practices—and philosophies—to cultural and economic settings which are very different from those in which these models originated. In most developing countries one can find a (French) lycée or a little Sorbonne, or an (English) grammar school or little Oxford, or an (American) comprehensive high school, trade school, teachers' college or land grant college. The temptation, of course, is great to adopt these models more or less blindly: they carry prestige, they have worked where they came from, and it is easier to duplicate an existing model than to create a new one. But what is good for one country is not necessarily good for another. More often than not, the imported model requires considerable adaptation if it is to be of greatest use, if indeed it is not to do more harm than good. The aim of this project is to explore how imported educational models can best be adapted to the peculiar needs of developing countries.
This is an exceedingly complex problem, especially when a developing country is receiving aid from several other countries and adopting now one, now another of their various educational models, thus running the risk of ending up with an educational system which is a patchwork of ill-fitting parts rather than a coherent and viable whole. It would be vain to expect that any one piece of research could provide a clear-cut and final solution of this problem. But even exploratory research, if carried out perceptively, could yield some useful results and open the way to a more orderly and thorough investigation of this problem.

Here again the best approach would seem to be a series of comparative country case studies focussed on specific sectors of education and on specific problems. It would be of special interest to contrast a number of cases where imported models were introduced without any real effort to adapt them to local conditions with other cases where a determined effort was made to adapt such models to local needs.

Project 24. THE ROLE OF EXPATRIATE EDUCATIONAL PERSONNEL

Many newly independent countries, especially in Africa, have had to rely heavily on foreign teachers and administrative personnel, particularly in secondary and higher education and at the higher administrative levels. The number of future expatriate teachers required by some of the plans now being formulated is so great that there are serious doubts whether more than a fraction can actually be provided, especially in view of the serious teacher shortages in the developed countries themselves and the heavy competing demands for qualified manpower in general. This situation raises three important questions. First, how can the expatriate educational personnel that is available be used to the greatest advantage? Second, what practical steps can be taken gradually to reduce the dependence of developing countries upon expatriate personnel? Third, what can be done meanwhile to provide an adequate supply of expatriate teachers to meet transitional needs?

The first thing is to assess the quantitative dimensions of this problem. It should be possible to estimate roughly the total number of new teachers and educational administrators of various levels that will be required by a sample of developing countries over the next ten years; the numbers which these countries are likely to be able to provide themselves under present plans and conditions; and the personnel gap which would have to be filled from outside sources.

The next step is to examine the practical possibilities of filling this gap. To what extent, for instance, do the most urgent needs of the developing countries (teachers of science and mathematics and educational administrators, in particular) coincide precisely with the greatest needs and shortages of the sending countries? Where this is the case, what alternative solutions are possible? What is the attractiveness of educational service in foreign countries? In particular,
what terms of employment and assurance of eventual return home without prejudice to one’s professional career is necessary to ensure a maximum supply of educational personnel?

Lastly, there is the question of the most effective utilization of expatriates. What problems arise, for instance, when expatriate teachers are used alongside local ones? Can expatriates successfully occupy important supervisory positions, such as inspectors, principals and vice-chancellors, and how can the transition best be made to fill these key posts with nationals of the host country? In the use of foreign personnel, should priority be given to the training of local teachers or to teaching in schools and colleges? What are the qualifications essential for effective educational service abroad, and what preparation is necessary, particularly with regard to the language and the culture of the country in which service is to be taken up? Who should provide this orientation? What nationalities are most suitable for employment in given circumstances?

The project should attempt to develop some strategies aimed at gradually reducing the dependence of developing countries on expatriate personnel, while meanwhile ensuring a good supply and the most effective use of this personnel.

Project 25. RAISING THE EFFECTIVENESS OF STUDY AND TRAINING ABROAD

Even the most advanced countries derive great benefits from sending some of their students abroad for advanced studies. Developing countries are, of course, dependent to a far greater extent upon the educational and training facilities of more advanced countries since their own higher education facilities, if any, are still inadequate. Only by sending some of their best people to study abroad are they able to meet their most urgent manpower needs for development, not least the personnel required to staff and administer and build their own educational institutions.

The flow of students from the developing to the advanced countries has increased considerably during the last ten years. But in the opinion of many people with experience in this matter, this flow has been disorderly and has given rise to a great deal of waste. The object of this project would be, therefore, to examine broadly this flow with a view to eliciting the measures by which educational planning could improve its productivity and effectiveness. The study would not be primarily statistical, but enough statistical data would be gathered to assess the quantitative dimensions and relative importance of the various factors involved. The emphasis would be on the practical means of improving the effectiveness of study abroad, particularly on the following problems.

a) Analytical methods for determining priorities, for study abroad in the light of the country’s manpower requirements and of the capability of its educational system of meeting them.
b) The selection, in the light of these priorities, of students and trainees to be sent abroad, and the preparation necessary for these studies, including language competence and an understanding of the real purpose of going abroad.

c) The selection of the countries and institutions most suitable for a given education or training.

d) The creation of educational and training facilities, or the adaptation of existing facilities, in the receiving countries to fit the particular needs of foreign students and their countries.

e) Measures for ensuring the return of the students for service in their own countries, such as incentives, job opportunities, job placement machinery.

f) Arrangements for providing continuous professional refreshment for those who have returned home from studies abroad, so that they may keep pace with any progress in their respective fields.

The study should also seek to identify and analyse the various choices open to planners and policy-makers in this field. For instance, what is the best balance of emphasis between study abroad and putting the corresponding effort into strengthening indigenous institutions? Or between undergraduates and post-graduates to be sent for study abroad? Or between studies abroad in highly specialized fields and in more general fields? Or between sending abroad groups tied to specific domestic projects as against sending unaffiliated individuals? To what extent should governments impose constraints upon the career choice and the freedom of movement of individuals? All these are questions which need clarification, but the final answers must, of course, be provided by each country in the light of its particular needs, traditions and system of values.

The realization of this project would require a systematic examination of the past and current experience of a number of receiving countries and a good cross-section of sending countries. The magnitude of the task is likely to exceed the capabilities of any one research institution, and, in any event, the best way to pursue this project would be through a partnership between several institutions, each with a research team in one or several sample countries. These teams would operate within a well-defined framework—which would have to be elaborated—so that their separate results could be synthesized into a coherent whole. The realization of the project would also require the full co-operation of the governments of the sample countries and of the other institutions involved, particularly the universities.
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