VARIABLES THAT MEDIATE THE INFLUENCES OF EDUCATION UPON A RANGE OF SOCIAL BEHAVIOR OF CITIZENS WERE IDENTIFIED. ORIENTATIONS TOWARD TIME, SELF, AND SOCIETY PROVIDED INITIAL FOCAL POINTS FOR THE DEVELOPMENT OF A MODEL FOR THE ANALYSIS OF THE RELATIONSHIP BETWEEN CITIZENSHIP AND EDUCATION. FOUR MAJOR CONSIDERATIONS REGARDING THE MODEL WERE FORMULATED—(1) "DIVERSITY OF GOALS," (2) "IDEAL VERSUS ACTUAL GOALS," (3) "PROBLEMS OF CROSS-CULTURAL COMPARABILITY," AND (4) "VARIATIONS IN GOAL CHOICE AMONG NATIONS." (GD)
AN INVENTORY OF RESEARCH AND THEORY REGARDING
THE RELATIONSHIP BETWEEN EDUCATION AND CITIZENSHIP

Cooperative Research Project No. 475

Melvin M. Tumin
Princeton University
Princeton, New Jersey

1966

The research reported herein was supported by
the Cooperative Research Program of the Office
of Education, U.S. Department of Health, Education,
and Welfare.
The overall objective of this project was to acquire "a deeper understanding and give a more systematic structure to the knowledge we have about the ways in which and the extent to which formal education influences citizenship."

It was recognized at the outset that the key terms -- "education and citizenship" -- stand for networks of factors. By education we refer to the following things, among others:

1. number of years of school completed;
2. type of curriculum pursued;
3. characteristic arrangements of power and authority in the school situation;
4. prevailing cultural definitions of the "relevance of education" for other life goals and situations;
5. types of reward and punishments used by the school authorities;
6. types of achievements and efforts considered most worthy and the modes by which these are symbolized;
7. modes by which students are grouped, e.g., by level of talent, etc.;
8. characteristic school-related, non-curricular experiences; and
9. prevailing theories as to the "goals of education".

By citizenship, we refer to another complex of behavior patterns, including the following:

1. participation in the political process, as indexed by voting;
2. observance of the legal norms, as indexed by crime rates and rates of other forms of deviant behavior;
3. participation in community life, as indexed by such things as membership and leadership in voluntary organizations and in community enterprises;
4. observance of norms of good conduct, including especially such things as freedom from prejudice and discrimination along racial, religious, and national lines;
5. participation in the plan of development of one's country, especially in the case of so-called underdeveloped countries; and
6. assuring the education of one's children.
We focussed on the relationship between these two factors because we assumed that differences in citizenship would be intimately connected with differences in education, as defined above. This assumption was based upon findings in the literature of social science regarding the influence of education, e.g., the greater the number of years in school: the greater the participation in voting, the lower the general crime rate, the greater the participation in voluntary organizations, the greater the freedom from intergroup prejudice and discrimination, the more frequent the participation in national developmental schemes, and the greater the degree of commitment to prolonged education for one's children.

This evidence regarding the connection between education and citizenship suggested that there are a set of important variables that serve to mediate the influences of education upon a range of social behavior. Our hope was to be able to identify some of these mediating mechanisms so as to understand more thoroughly and systematically how education produces its effects.

We suggested, at the outset of this work, that there were three mediating variables that were probably of prime significance, as follows:

1. time perspective, i.e., the capacity to bargain the present against the future, and to defer present for future gratifications, where this seems called for;

2. a sense of identification with, and hence a sense of personal stake in the activities and welfare of the society or the group in which one holds membership, because one feels that the group's gains and losses are commensurately one's personal gains and losses;

3. a sense of self-esteem, i.e., the belief that one is esteemed by others and that one merits this esteem, and is capable of fulfilling the tasks one must perform to receive the rewards one desires, including the continuation of esteem by others.

We felt these three orientations toward time, self, and society were sufficiently suggestive to serve as the focal points of our concern as we searched the literature in an attempt to understand the relationships between education and citizenship.
In pursuit of these objectives, a number of months were spent in reading through a wide range of empirical and theoretical literature. From these materials, any propositions regarding the bearing of any aspect of education on any aspect of citizenship behavior were culled and then categorized for easy retrieval. Each such proposition was characterized by the degree of research support that underlay it, and, hence, the extent to which the proposition could be taken as established.

As we pursued these means toward our objectives, it became quite clear that the usual study tended to examine the impact of education on a wide variety of goals other than those we had specified as falling within the range of the term "citizenship." Moreover, the large majority of the propositions asserting connections between education as means and a variety of ends were more often than not impressionistic, representing observers' judgment and estimates, often based on secondary materials, and providing no sound basis for judging their credibility. Moreover, most of the propositions we encountered specified educational means toward certain stated goals without any real clarity as to how these means were to achieve the goals. In a large number of cases, ideology and rhetoric are substituted for clearly thought-out hypotheses based on evidence. One therefore finds it to be the all-too-frequent case that various nations have either clung to educational traditions that are literally centuries old, or, in the case of some emerging nations, have borrowed centuries-old traditions from other nations as they sought to construct their own systems of education once they had secured their national independence.

In view of these difficulties, it seemed to us quite clear that any effort to build a systematic inventory of propositions about education and citizenship that could claim in any way to represent established knowledge was probably futile. From one nation to another the terms of discourse were extremely variable, the specification of mediating variables was most inadequate, and, as a result, the chances are extremely small of being able to make any sensible comparison of nations with regard to the variable ways in which their systems of education and citizenship are interlocked.

Because of these difficulties, we proposed in February 1966 to amend our contract in two ways.

1. To widen the scope of the inquiry to include a number of relationships between education and other social behavior which we felt had to be understood if the linkages between education and citizenship were to be clarified; and
2. to change the goal of developing a propositional inventory to one of developing a model for the analysis of the relationship between education and national goals. We felt that such a more broad based attack on the problem that did not at the outset commit itself to producing an established inventory of knowledge, was much more appropriate to the existing state of the literature. The proposed amendment was approved, and the time from March 1, 1966 until June 30, 1966 was spent on a variety of tasks relevant to these two goals.

Our aim during the period March 1 to June 30, 1966 was to explore the problems connected with getting a sound answer to the question: How can one know whether and to what extent any educational system is achieving the goals that it says that it intends to achieve or claims that it has achieved?

To answer this question properly, four tasks have to be accomplished.

1. The goals in question have to be specified in such a way that when proper measures are devised it will be possible to estimate the extent to which the goals have been achieved.

2. The means that are employed to achieve the goals must also be operationally specified so that the extent to which and the ways in which these means in fact did lead to the goal accomplishment can be estimated accurately.

3. Sound operational measures of goal-accomplishment have to be created.

4. Sound techniques of analysis have to be developed to determine the extent to which the employed means were responsible for the achievement of goals as measures.

While each of these four tasks seems reasonably simple on the face of things, in fact, they are extraordinarily complex tasks. Moreover, judging by the available literature, one can say that virtually none of the research in this field of evaluation has even handled the first task well. That is to say, aside from the relatively constricted and narrow definitions of certain cognitive outcomes, such as are subject to the ordinary cognitive tests (e.g., College Board Exams) there has been relatively little or no concern with the numerous other goals that virtually every school system in this country and abroad announces as
part of its educational goal seeking. Thus, for example, almost no school system has any good indication of the extent to which scientific creativity and imagination are being developed in their pupils. So far as reliable evidence is concerned, matters are even worse when it comes to such goals as citizenship, leadership potential, emotional health, and the like. In almost all these cases, slogans and mottoes are substituted for rigorous estimations and measurements.

It stands to reason that if goals have not been clearly specified and operationalized, then no progress can have been made on the other three tasks, i.e., specification of means, creation of measures, and analysis of the relationship between means and ends. A superficial survey of a sample of the literature on comparative educational systems will suggest that this statement is true, and a deeper survey will confirm it beyond doubt.

The two kinds of reliable evidence about so-called educational outcomes are the following:

1. Years of school completed by various kinds of students, classified either by some background factors, e.g., father's education or income or occupation, or by some test scores, presumably predictive of cognitive abilities and performance, e.g., SAT scores, ACT test scores, or the British standard of passes on the GCE.

2. The distribution of stratified ladders of occupational prestige or income of members of a population classified by their years of school completed.

It can be seen that these findings come at the question of the significance of education in two different but related ways. The first examines the significance of non-educational factors for certain crude measures of educational achievement. The second analyzes the presumed impact of education upon non-educational goals, e.g., scoring a gainful and prestigious occupation. In general, both of these sets of findings, especially from the Western European democratic societies, reveal that there is significant inequality in opportunity, usually by social class, to attain the various levels of schooling, and, as a corollary, there is significant inequality in the opportunity to achieve such non-educational goals as occupation and level of income. While the connections between
social class background and level of education seem to be reasonably well established, the case is by no means so clear with regard to the actual role played by formal education in the shaping of the occupational distribution in any society. As Jean Floud and A. H. Halsey have noted

...we have no very clear idea either of the amount of mobility actually imposed by the movement toward technological society or of the part played in this process by education. Navighurst... assumes that mobility must increase with economic development. However, evidence that "the overall pattern of social mobility appears to be much the same in the industrial societies in various Western countries" has been interpreted by Bendix and Lipset in terms of a "threshold" theory of more or less constant rates of mobility beyond a certain stage of economic development. In any case, the extent to which education fosters mobility remains limited. Variations in economic development or social structure notwithstanding, "as the economy becomes more tertiary (and even as University attendance expands), there is at most a sluggish tendency for the more disadvantaged sectors of the population to contribute an increasing relative proportion of students... Moreover, Anderson argues further, on the basis of American, British, and Swedish evidence, that ability -- genetic or acquired -- plays an important part in mobility independently of schooling.

The truth is that the schools and universities function badly as selectors and promoters of talent... Schools and universities were not designed for the selection processes thrust upon them in a modern economy by the tightening bond of schooling with occupation, and hence with social class, nor were they designed to act as agencies of social justice, distributing "life chances" according to some meritocratic principle in face of the social claims of parents for their children.

Most relevant for our purposes here is the last sentence just cited in which the authors note that schools and universities are not designed for the selection process thrust upon them in a modern economy, nor to act as agencies of social justice or as distributors of life chances. There is a clear implication in this statement that some of the main functions that schools are performing in modern industrial societies result from the operations of impersonal institutional forces rather than from the specific and conscious setting of purposes by an organized policy or an electorate. Indeed, as one examines the statements of educational goals that both educational philosophers and political officials in various societies have formulated, there is little reference in these formulations to those functions that analysts of educational systems point to as being among the most important functions served by educational systems, such as providing social mobility or the distribution of life chances equitably.

One sees an important analytical distinction between what analysts observe and what educational officials propound, i.e., a distinction between the impact of education, defined in terms of intellectual and emotional development, on the one hand, and the impact of the operations of the educational processes in general upon the network of social institutions of the society at large. This is not the same distinction as that between individual and social influence, for that distinction is simply one of the level of generalization at which a statement is put. Thus, one can speak of the intention that education shall enable every child to become literate, or one can put this in more general terms and speak of the intent that education shall provide a literate adult public for the society. The crucial difference we are pointing to in this distinction is the specification of intellectual and emotional development of the children who are educated, on the one hand, as against the specification of impersonal operations, on the other. It is unquestionably true that the two sets of consequences are intimately connected, in the sense that significant influence on the minds and hearts of the young people of any society are bound to have consequences for the institutional operations of that society. It is also true, however, that it is possible to focus on certain desired institutional outcomes such as a type of labor force, without paying much attention to any aspects of intellectual and emotional development of children other than that very limited sector directly relevant to the set of skills desired.
As one makes such a statement, however, it becomes immediately clear that if one specifies the desired institutional outcomes with sufficient clarity and detail, then the implications of these desired outcomes for specific kinds of educational practices and, in turn, for the particular developments in children, emerge with equal clarity. Thus, for instance, if one were to say that one wanted a labor force in which certain percentages of various skills were represented, and in which the persons possessing the skills would be motivated to employ them conscientiously and would feel motivated to work at their task conscientiously, one could then engage in rational analysis of what it is that schools would have to do in order to turn out such people. One could also then begin to construct the kind of curriculum, teacher training institutions, school administration networks, relationships between the schools and the community, and the whole host of facilities, resources, and processes that would have to be deployed in order to achieve these ends. It is precisely the failure to make the ends sufficiently explicit and detailed that has made it difficult, on the one hand, to construct the appropriate means and, on the other, to measure whether the ends have in fact been achieved by the means constructed for those purposes, or even whether the ends have been achieved at all.

Much of the discontent that one finds expressed in the literature with regard to the so-called failure of the schools to achieve desired and important outcomes is due, as we see it, to the failure to translate these desired societal outcomes into terms that can be articulated into educational means. The usual societal prescription is put at the level of types of labor forces or types of skills, or types of social organization, at the same time that the societal authorities insist on an overly narrow definition of the appropriate measures of the achievement of such outcomes, e.g., focusing alone on national test scores, indicating levels of literacy in the language, and in mathematics. Alternatively, they fail to provide the resources necessary for the achievement of complex goals on the grounds, among other things, that the society cannot afford to be concerned with "frills." For instance, any time that the schools are charged with turning out a certain type of "citizen" defined, let us say, by a certain level of knowledge, taste, morale, loyalty, and physical and mental well being, the schools must be provided with a wide range of facilities, personnel and resources and be allowed, encouraged, and indeed, urged to engage in many kinds of non-cognitive education. However, what usually happens is that these complex demands are set upon the schools and then resources are provided that are just barely adequate for the new development of very narrow ranges of cognitive skills, such as
reading and writing, without any chance being available whatever, given the resources, to achieve the more complex kinds of ends that are desired.

The recitation of these typical kinds of difficulties indicates that most, if not all, societies have failed as yet to learn how to use their schools effectively. Their failures lie either in inadequate specification of ends; inadequate understanding of the necessary means; failure to provide the necessary resources; and, in general, serious over-expectations as to what can be accomplished in the schools given the level of resources that are provided. It is ironic that at the same time, in view of what well-structured schools with adequate resources can do, one is forced to remark that most societies under-utilize the potential of their schools.

The lack of clarity regarding educational goals is part of a more general lack of clarity regarding social goals in general. It is extremely difficult to find any statements of national purposes that consist of anything more than pious platitudes, devoid of any possibility of translation into meaningful and operationally useful terms. So, too, even when professional educators turn their attention to the formulation of educational goals, the level at which these formulations usually emerge is often so general as to serve little purpose other than as a recitation of agreeable pieties, when what is needed is rigorous point-by-point specification of the ingredients and components of the kind of behavior desired, stated in terms susceptible of rigorous measurement. For example, though it would be generally agreed upon that all schools ought to help every child acquire to the fullest extent possible for him mastery of basic skills in the use of words and numbers, this statement is a long distance away from the kind of specification required before any school could be able even to begin to estimate whether these ends had been achieved.

Having expressed discontent with the existing state of much of the literature regarding educational means and ends, balance must be introduced by acknowledging the significant amount of concern for developing sound educational evaluation, especially as that is reflected in outstanding works by American scholars.

A number of efforts have been made to classify educational goals. These include such well known books as Krathwohl, Bloom and Masia's THE TAXONOMY OF EDUCATIONAL OBJECTIVES (New York, David McKay Co., 1956); Ralph Tyler, BASIC PRINCIPLES OF CURRICULUM AND INSTRUCTION (Chicago, University of Chicago Press, 1950, 1964); John H. Mahoney, FOR US THE LIVING: AN APPROACH TO CIVIC EDUCATION (New York, Harper & Brothers,
These are but a few of the many works in the field, both of educational evaluation in general, and education in social studies in particular. Each provides at least some valuable insights and understandings of the possible ways in which education exercises its influence, particularly upon that ephemeral factor called citizenship. Any attempt to develop a model for the analysis of the relationship between educational means and ends must take such works and others into account. We mean to stress, by citing these works, that there has been a good deal of informed and concerned thinking about educational means and ends, and especially about the relevance of education for citizenship. A number of the works cited have attempted to formulate educational goals explicitly and have tried to state what means they think could be used to achieve these ends. A number of the scholars have come up with inventive and creative ideas about teaching certain aspects of the social studies and other portions of the curriculum. These contributions are not to be ignored.

At the same time, it is all too clear that the least progress has been made in measuring whether any of the stated educational ends have, in fact, been achieved, and whether and in what way the programs developed to achieve these ends have yielded any significant gain over other kinds of programs. Thus, we do not know whether persons exposed to various new kinds of social studies curricula have learned citizenship any more effectively than others, and we dare not even here raise the problem as to the amount of controlled experimentation that was employed. So, too, we do not know with any confidence whether there has been any benign influence from such recent innovations as team teaching, programmed instruction, language labs, ability groupings, and other curricular and administrative devices introduced in the hope of being more effective in achieving one's educational aspirations.

Clearly, what is needed most urgently is a working model of evaluation, one which is sufficiently general to be useful for evaluation of virtually any form of social action and, at the same time, can be adapted to take full account of the particularities of any kind of
social action situation, such as the introduction of a new curriculum in the social studies. The first need, then, is to set down the ingredients of any such model, or, at least some of the constituent elements, even though one may not be able to state in any precise form the systematic relationships among the ingredients. The following pages are designed to provide some general outline of some of the more important aspects of a model of evaluation.

In most simple terms, what evaluation seeks to do is to discover the extent to which a desired outcome has been achieved by the means that were employed with the intention of achieving the outcome. Implicit here is the notion, too, that if the ends have been achieved, but it appears that the employed means were not primarily responsible, the model should direct the attention of the investigators to the other probable sources of achievement. Put in these terms, an evaluation model is identical with a model of experimental design, requiring precisely the same kinds of control as would be used in any well-constructed experiment. Critical, too, is the requirement that the evaluation process must commence at the beginning of the experimental process itself. All too often this injunction is ignored, and specialists are brought in to evaluate projects or action programs after they have been under way or have come to a temporary stopping point, only to find that the kinds of information and controls that are indispensable to sound evaluation are not available.

The least understandable but most frequently encountered problem in evaluation is the failure of those who have taken a course of action with the intention of producing some desired effect to state beforehand just what effects they intend to produce and to state them in such a way that the degree of their achievement can be estimated with some precision.

Thus, if a social studies curriculum is introduced with the intention of yielding an increase in "good citizenship behavior" but if that behavior is not defined beforehand, and if the level of the relevant behavior at the outset has not been measured with any degree of precision, it is impossible to estimate what has been the net result and certainly impossible to state whether the innovations in the form of curriculum have had any significant influence on anything. More often than not, one finds this to be precisely what happens both in local and in national school systems. It is, for instance, eminently possible to produce very persuasive evidence that the U.S. educational system has been an enormous failure or an enormous success. Much of the current national educational debate takes place on just this level of competing claims about the effectiveness of the American educational system, with the protagonists
of each point of view using his own criteria of outcome and his own impressions regarding those outcomes to justify his position which, more often than not, was adopted beforehand and selectively reinforced by the process of selected perception of supporting evidence.

A second crucial consideration regarding the construction of any model of evaluation refers to the level of generalization. Here we refer to the fact that there must be some reasonable consonance between the level at which the input is conceptualized and the level at which the output is to be measured. Thus, it would be a serious mistake to try to measure whether an increase in the general school budget of a particular school system had produced a higher level of academic achievement among previously "underachieving" children. Before the relationship between two such variables could be estimated, the budget increase would have to be translated down into the specifically new measures that had been adopted with regard to the education of underachieving children in order to have any chance to estimate whether a meaningful relationship exists. All the intervening variables between new money and academic performance of selected children would have to be specified beforehand.

This problem is particularly relevant when one talks about estimating and evaluating the effectiveness of national educational programs. In the nature of the case, there must be drastic condensation and simplification of the innumerable details of any national educational program so that the input variables can be stated in relatively simple terms, consonant with the level at which outputs are stated so that correlates between the input and output can be estimated. Unavoidably in such a process one surrenders a great number of specifics and deliberately washes out a good deal of internal variability in order to formulate variables at sufficiently general levels in order to be of sensible use in measuring the performance of national educational systems. Thus, all other things being equal, any measurement of the operations of a national school system would employ some measure of per capita expenditure which would be stated as a mean with appropriate indications of dispersion around the mean. Such a measure of central tendency naturally and deliberately ignores what may be a great range of variability. For example, in the U.S. such a mean of per capita expenditures would include regions (states or counties, or local communities) which were radically different in how much each spent per child, including cases where some communities were spending two or three times as much per child as other communities. But if any progress is to be made toward measurement of national tendencies and
outcomes, this kind of simplification and condensation must be undertaken. In turn, one must not expect to make any sense out of the relationship between a national mean of per capita expenditure and the performance of a given local community school system. If it is local community outcome that one is trying to estimate, then one must take the variables at the level of their specific utilization in that community.

A third major consideration in evaluating educational performance has to do with the proper level of expectation regarding outcome. Most school systems in the U.S. today, for instance, try to estimate "how well they are doing" by comparing the performance of their children on certain so-called standard tests with the national norms of performance, derived from the results of identical tests administered to a selected number of other school systems throughout the country. This kind of comparison may be useful for some purposes, such as either creating worries if the average of one's school system is below the national "norm", or in bringing assurance to school authorities that their school system is above the national norm. However, both the worries and the assurances are irrational and unjustifiable. For the only sensible kind of comparison that can be made is between the outcomes of school systems which are comparable with regard to the available resources that have been put into the schools. In short, output must always be measured relative to input. Any other approach to this problem involves one in such meaningless activities as comparing the performance of the schools in a wealthy high tax-paying suburb with schools in low tax-paying rural areas.

The same problem of the proper kind of comparison must be met with regard to the comparison of nations. It may be useful to find out that after six years of math instruction the children of one nation are scoring at certain levels of so-called standard tests that are higher or lower than children of another nation, but one cannot say how much inequality is to be expected until one examines the extent to which the input in both cases has been equalized. So far as the model of evaluation is concerned, this precautionary consideration points strongly to the necessity of including in the model adequate measures of input, so that the level of expectation regarding output may be realistic.
Another major consideration in educational evaluation is the importance of including in the model variables that refer to two other factors that influence output. These are: 1. educational process, and 2. extra school conditions, including community and home. By educational process we refer to all the experiences had within the framework of the school, either intentional or unintentional, that may modify the outcome as measured by whatever indices of outcome are being used. Among such processes are the ways in which children are grouped; the relationship between teachers and pupils; the relationships between teachers and administrators; the way in which classes are taught; and any and all other factors that can be properly identified as occurring within the framework of the school experience, and as such would be, at least theoretically, subject to deliberate modification by the school authorities.

By "surrounding conditions" we refer to such factors as the attitudes toward education prevailing in the community; the specific qualities of home assistance and encouragement; the status of teachers in the prestige system of the community; and a host of similar factors that can be shown to be outside the province of school policy, but probably relevant to educational outcome. When these two factors of educational process and surrounding conditions are combined with input and output factors, we have the four major categories of factors that must be considered in any model of educational evaluation. Input refers to all the relevant characteristics of the pupils as they encounter the school program, i.e., what students bring to the school, and the output refers to what the pupil has become, what he knows, what he feels, how he aspires, and what he can do after passing through some phases of school. Outputs may be defined much more narrowly, depending on what outcome one is seeking to estimate. Put in these terms, then, it is clear that if one selects a reasonably restricted output target, and a comparably restricted set of input factors, sensible comparison of two schools, or two school systems cannot be achieved unless the range of their probably relevant input and output factors are controlled. The same observations, of course, refer to the categories of educational process and surrounding conditions.

At all times in any evaluation of the outcomes of social policy, whether in the field of education or elsewhere, the evaluator must also take into account the extent to which unanticipated and undesired outcomes have resulted, along with whatever desired outcome was generated. A model
of evaluation will be sound in proportion to the extent to which it contains some analytic scheme for balancing desired against undesired outcomes so that the "net gain" or "net loss" of the policies can be estimated. This consideration is crucial since, in the first instance, all human activity generates undesired as well as desired outcomes, and the worth of any policy cannot be soundly estimated unless both the pluses and minuses are taken into account. Moreover, every school system, local or national, operates with a set of goals that it is trying to achieve simultaneously, and it is expectable that any given policy is likely to be differentially consequential for various of these goals, such as being positively supportive of some but negatively detracting from others. Thus, though one may be primarily interested in the effectiveness of a new program of instruction on the levels of reading ability of students at various years of school, sound evaluation of the influence of that new reading program must take into account the extent to which other goals such as stimulation of creativity or enhancement of democratic relationships may either have been left untouched or may, in fact, have been injured by the reading program. One must always ask what prices one has paid for his profits.

The foregoing four major considerations regarding a model of educational evaluation have been suggested by our examination of a wide range of literature concerning the operations of school systems here and abroad. They are considerations that are well known and understood by every major scholar concerned with the problem of evaluation. Yet it is fair to say that there exist few evaluation studies, whether of local school systems or larger communities, which have observed these canons of procedure with sufficient rigor to provide a satisfactory empirical instance of an evaluative model in action. The most satisfactory work, rather, has come from the ranks of educational researchers who have been concerned with the importance and effectiveness of one or another aspect of educational process for certain limited educational outcomes. But even the best of such studies have not yet found appropriate ways of taking account of the total social matrix of the school-in-community in their evaluation of the effectiveness of educational means to desired ends. This is not to be taken as indicating an avoidable inadequacy on the part of such studies. Rather, it is a reflection of the fact that even the best of educational researchers is handicapped at the present time by the lack of a fully developed model of evaluation.
1. DIVERSITY OF GOALS

Whether speaking of a local school system or that of a nation, the first major question regarding goals that one has to answer is how does one decide what are the goals of the system. This problem is given in all cases by the fact that in every school system there are a number of differing publics (parents, teachers, administrators, taxpayers, etc.) who, if they do not differ on the range of goals desired, certainly differ, and often critically, on the priorities they assign to various of these goals. There is, for instance, in the U.S. a constant tension between the orientation of parents to the educational careers of their individual children, and the orientation of teachers to the sound education of all children. Any parent naturally tries to maximize his own children’s interests and needs, taking into account only secondarily the diversity of such needs that are likely to be encountered in any classroom. By contrast, any “good” teacher necessarily tries to take into account the educational needs of children at diverse levels. What may therefore be very beneficial for one particular child’s needs may be commensurately detrimental for those of another child. Given this diversity of competing publics, with their competing criteria of adequacy of schools, the crucial problem facing the investigator is how to choose the goals whose achievement he will seek to measure.

There are no standard solutions for this problem in the literature. One must therefore be prepared, when he undertakes educational evaluation, to be selective about the goals on which he will focus, and, as a result, he must expect that his study will be met with variable amounts of favor and disfavor by the competing publics who comprise the educational community. By whatever token the investigator selects the goals on which he will focus, he must make explicit what his selections have been and what he has deliberately chosen to ignore or to reserve for later investigation.

This requirement of selectivity is imposed upon the investigator by still other sources than the presence of competing publics. Principal among these is the presence in any school system of a range of goals (whichever group or public one takes for his reference). Until now, most investigators have been understandably inclined to restrict their measurements of educational outcomes to certain narrowly defined cognitive
performances. They have done so in response to the fact that presumably standard measures of such cognitive abilities are more available than is true for non-cognitive performance and outcomes, or even for other dimensions of cognitive activity. Any evaluator must therefore be prepared to make a selection among the range of different goals that are announced as desired by a given school system and must be rigorously explicit about the narrowness or breadth of his goal formulations.

2. IDEAL VS ACTUAL GOALS

A crucial question, which is in some sense prior to that raised by the diversity of goals, refers to the distinction between "ideal" and "actual" goals. Here we refer to the problem not of whose goal statements or wishes shall be taken into account or of which of the many goals shall be examined and evaluated, but, rather, by what tokens can an investigator decide that any of the publics who make up the school system in fact have one or another goal in mind. For example, how does one decide whether good citizenship "really" constitutes a goal of the parents or the teachers of a given community? This problem is part and parcel of the larger problem facing any social scientist who is concerned with attitudes and beliefs and who worries about whether his inquiry is providing information about what people "really" want or are only telling him what they say they want or believe.

There are a number of suggestions in the social science literature as to how to deal with this problem. Perhaps the dominant one is to ignore what people say and instead to see "where they put their money", namely, to judge what it is that people value by seeing what they are willing to spend scarce and valued resources upon. This is not an altogether happy solution for two reasons, among others. The first is that in any given school budget the final allocation represents a compromise between sets of competing demands and is most often stated in terms of categories of expenditures that are not really revealing of intended goals. The second difficulty is that it can be demonstrated that there are whole ranges of things that people desire that, nevertheless, do not get translated into concrete observable action for lack of resources, material, psychological, or social. Thus, to rely on overt behavior indices is to guarantee that one will be getting a very truncated view of the range of desired goals in any given community.
No effort can be made at this point to propose viable solutions to these problems. However, this report must go on record as recognizing the great difficulties involved here.

3. PROBLEMS OF CROSS-CULTURAL COMPARABILITY

While one can be reasonably sure that goals that are nominally the same within one culture, in the sense that they are stated in the same terms, e.g., training for citizenship, etc., such assurances cannot be given the investigator when he seeks to engage in comparative evaluation of various nations with each other. Here the problems presented by differential inputs is complicated further by the fact that while two nations may nominally affirm the same goal, they may, in fact, mean very different things by the same term. Training for citizenship in the U.S. may mean a very different thing than in England or Denmark, not to mention the probably even greater differences in the meaning of these terms in such a country as the Soviet Union. In the context of this problem, research has to do considerable preliminary groundwork to discover the culturally specific operational means of various terms for different societies, however much they may nominally be the same.

As a further illustration of the difficulties involved here, it should be noted that in all industrialized societies, the educational systems are held responsible in part, at least judging by explicit statements of their national ministeries, for (1) preparing students for their vocations, (2) for active citizenship within their societies, and (3) for some aspects of self-realization. As one examines more details from various societies, however, it becomes clear that each of these nominally same goals comes to take on significantly different meanings from one country to another. Consider, for instance, the difference in attitudes toward vocational preparation in the U.S. and Britain, not to mention even greater differences between the U.S. and the Soviet Union.

4. VARIATIONS IN GOAL CHOICE AMONG NATIONS

As one examines the literature of comparative education it becomes clear that each country (and perhaps each community within each country where there is local option) is always engaged in making a series of
choices among alternative possible basic themes. Five such basic themes can be specified at this point as a possible guide for further elaboration at a later date. We see these countries as orienting their educational systems more toward these than the other pole on the following five continua:

1. Elite vs egalitarian opportunity systems.
2. Cognitive vs affective developmental features of children.
3. Innovative vs traditional orientations.
4. Materialistic vs spiritual orientations.
5. Social vs individual purposes.

These thematic choices seem useful in discriminating, for instance, between more and less democratic school systems, both within and among nations. Pooling a number of goal statements from various American educational documents, for instance, one can state a series of goals that would enjoy a high probability of being affirmed as desirable, though without any necessary consensus on priority, by a large number of American educators, government officials, and educational philosophers. Eleven such goals can be stated. They are as follows:

1. To help every child acquire the greatest possible understanding of himself and an appreciation of his worthiness as a member of society.

2. To help every child acquire understanding and appreciation of persons belonging to social, cultural, and ethnic groups different from his own.

3. To help every child acquire to the fullest extent possible for him mastery of the basic skills in the use of words and numbers.

4. To help every child acquire a positive attitude toward school and toward the learning process.

5. To help every child acquire the habits and attitudes associated with responsible citizenship.
6. To help every child acquire good health habits and an understanding of the conditions necessary for the maintenance of physical and emotional well-being.

7. To help give every child opportunity and encouragement to be creative in one or more fields of human endeavor.

8. To help every child understand the opportunities open to him for preparing himself for a productive life and to enable him to take full advantage of these opportunities.

9. To help every child understand and appreciate as much as he can of human achievement in the natural sciences, the social sciences, the humanities, and the arts.

10. To help every child to prepare for a world of rapid change and unforeseeable demands in which continuing education throughout his adult life should be a normal expectation.

11. To help every child understand and appreciate as much as he can of human achievement in the natural sciences, the social sciences, the humanities, and the arts.

While these goals are stated in most general terms, there seems to be no other posture to adopt other than that they are capable of being operationalized, at least in part, so that the extent to which at least some aspects of each are being realized by any school system are being measured.

It is often contended, in opposition to this point of view, that many of the non-cognitive goals in the list of eleven are too ephemeral to be susceptible to operationalization, or, alternatively, that these are simple minded versions of very complex matters. In response to this, however, it must be indicated with considerable vigor, that the currently accepted and widely utilized tests of cognitive achievement get at or tap only a very limited portion of the totality of possible cognitive performance of any child. Because of well known historical factors, little doubt has been raised in educational circles regarding the importance of testing for basic abilities in reading, writing, and the use of numbers. However, every educator would agree that these represent but some of a wide variety of other dimensions of cognitive ability and achievement. If the same
willingness to abstract certain crucial aspects of non-cognitive goals were to be forthcoming, then, in principle, there would be no greater difficulty in getting operational measures of non-cognitive achievement than presently exist in the field of cognitive abilities and performance. As an example, one may cite the excellent work done by a group from Michigan State on the measurement of students' self-concepts of their abilities and the relationship of this self-concept to school achievement. (Educational Research Series No. 31, Cooperative Research Project #1636, October 1965.) Self-concept or self-esteem have been talked about as crucial variables in academic achievement for many years. It is only recently that serious efforts have been made to operationalize this concept and test for its presumed significance. While one can pick many arguments with individual portions of this study, the fact remains that it represents a significant move forward in the direction of bringing an important dimension of educational experience under scientific scrutiny.

While one can be very pessimistic about the possibilities of educational evaluation, given the present state of the art, one can hardly fail, at the same time, to be very optimistic about the possibilities of rapid development, once certain basic analytic instruments are put together into a working model of evaluation. It is toward that end that this exploratory project was directed, and we feel confident in reporting that a very great deal has been learned in the process of exploring the literature and inventorying the propositions that are available. We now feel ready to move forward to the next step of attempting to construct at least a preliminary version of a model of evaluation that will be useful cross-culturally and cross-nationally. In this sense, then, the work of the past nine months has, in our judgment, been most worth while and produced a number of anticipated results, even though some of the hoped for outcomes were not forthcoming, mainly because they were nowhere to be had.

The accomplishments of this project can be briefly stated as follows:

1. We have examined a range of empirical and theoretical materials on the relationship between education and citizenship, compiling, in the process, an annotated bibliography of the relevant literature.
2. We have examined existing classificatory categories and have restructured a number of them in the interests of a more rigorous conceptualization, especially with regard to the dimensions of educational experience that must go into any model of educational evaluation.

3. We have compiled an inventory of propositions regarding educational means and ends and have examined the empirical support that underlies them and their generalizability.

4. We have evaluated the conceptual and other difficulties present in the available research, and identified possible paths for overcoming some of these difficulties.

5. We have made progress on securing a command over the literature relevant to the variables of time perspective, identification with group, and sense of self-esteem as variables relevant to the relationship between education and citizenship.

6. In line with our amendment, we have attempted to formulate certain requirements for a sound model of educational evaluation that would be useful cross-culturally and cross-nationally.

7. We have broadened our canvass of the literature to include an analysis of propositions relevant to the relationship between education and a wide variety of goals other than those of citizenship.

In advancing to some degree on each of these dimensions of our objectives, we have approximated the stated intentions on the basis of which the original grant was made.