DESIGN FOR A NATIONAL LONGITUDINAL STUDY OF SCHOOL DESEGREGATION: VOLUME I. ISSUES IN THEORY AND METHOD

PREPARED FOR THE U.S. COMMISSION ON CIVIL RIGHTS


R-1516/1-USCCR
SEPTEMBER 1974

Rand
SANTA MONICA, CA. 90406
The work upon which this publication is based was performed pursuant to Contract CR3AK009 with the U.S. Commission on Civil Rights. Views or conclusions contained in this study should not be interpreted as representing the official opinion or policy of the U.S. Commission on Civil Rights.

Published by The Rand Corporation

Photo courtesy THE NEWS AMERICAN, Baltimore, Maryland
DESIGN FOR A NATIONAL LONGITUDINAL STUDY OF SCHOOL DESEGREGATION: VOLUME I. ISSUES IN THEORY AND METHOD

PREPARED FOR THE U.S. COMMISSION ON CIVIL RIGHTS


R-1516/1-USCCR
SEPTEMBER 1974

Rand
SANTA MONICA, CA. 90406
PREFACE

This is a final report to the United States Commission on Civil Rights. It is a suggested design for a program of research in school desegregation. The report has a limited audience of policy-makers and research management staff within the federal government and private foundations, who will make decisions about whether a research program should be begun, and if so, what sort of program.

In the summer of 1973, the U.S. Commission on Civil Rights asked The Rand Corporation to prepare a design for a longitudinal study of school desegregation. After the project staff had consulted a number of scholars and policy-makers and reviewed the existing research, we concluded that a single study could not encompass all of the needs that this research must meet.

There has been very little research of good quality on school desegregation; many questions are unanswered, and some important topics have not ever been addressed by empirical research. The question of whether desegregation raised or lowered academic achievement is unresolved; the question of the impact of desegregation on other aspects of student behavior has hardly been considered. Many policy-makers are concerned with the impact of desegregation on the community as a whole. If desegregation wreaked havoc with the community, it made little difference whether it helped students or harmed them. There was little empirical research to guide policy-makers interested in helping a school district or a school decide on the best way to go about desegregation.

These issues are too broad to be settled in a single research project. Yet we were pessimistic about the shotgun approach of the past, in which many agencies had independently funded many different studies. We therefore developed a compromise approach between the idea of a single study and the idea of many independent studies. In this report we have proposed a research program, consisting of perhaps six major studies and several minor ones, each independently funded and directed, but all related by a common purpose, by planned integration of findings, and by sharing a common data base. Such an approach should enable the research to cover a wide range of policy issues, permit competing research teams to debate the major findings, and provide opportunities to recruit a number of talented researchers. It would create complex problems of coordination and management, and it would be expensive, at least in comparison with past research.

The report is published in two volumes. This, Vol. I, contains an overall summary (which should be read first) and a general discussion of the theoretical and methodological issues which are involved in designing research in this area. Volume II contains the details of the research program as well as a bibliography. (The summary has also been published separately for the convenience of those readers who do not need the detailed report.) Rand has prepared a set of draft questionnaires and other research instruments, which have been published as appendices and are available upon request.

Section 1 begins by recognizing the conflicts between various definitions of desegregation and integration and between the ideological positions held by persons interested in the subject. It then attempts to construct a frame of reference which will hopefully be broad enough to enable researchers with different values to gain useful data from this study.
Section 2 presents the general methodological perspective of this design. It stresses several points: longitudinal data, the use of multiple methods for measuring important variables, and the necessity for a program of linked, but separate, studies.

Section 3 discusses in more detail the logic of the single most important aspect of the design—that all of the proposed studies are longitudinal. This section reviews the advantages and difficulties of longitudinal studies, as well as other major longitudinal studies in education.

Section 4 develops the major theoretical issues of the study in three parts. The first deals with the community as a whole and develops a general model of the community desegregation process to guide the research. The second discusses the impact of desegregation on student attitudes and performance. The third identifies five specific school factors which seem especially important in making desegregated schools effective.

Finally, Sec. 5 reexamines the desegregation issue from the perspective of two minorities of Spanish-language background—Mexican-Americans and Puerto Ricans. (This research design is not intended to deal with other minorities, such as Orientals, American Indians, or immigrants from Cuba.)

These five sections of Vol. I constituted the theoretical basis for the design presented in Vol. II.
SUMMARY

INTRODUCTION

This report is the response to a request from the United States Commission on
Civil Rights that a research program be designed to accomplish two tasks: first to
measure the effectiveness of different desegregation strategies in providing equality
of educational experiences to black, Puerto Rican, Mexican-American, and Anglo
students; second, to provide policy-makers with information about the problems that
arise in school desegregation and with research results from which they can recom-
mand national and local policies to help desegregation become more effective. From
a research perspective it is efficient and practical to combine these two charges into
a single research program, although such a combined approach represents a depar-
ture from previous work.

Most research on desegregation has limited itself to a single narrow topic: How
does the racial composition of the school affect the performance of students on
standardized achievement tests? This research has resulted only in confusion and
the almost complete absence of accepted conclusions.

The Commission on Civil Rights, in requesting this design, asked that Rand go
well beyond this conventional approach to the problem and deal with a host of other
issues: the impact of desegregation on teachers; its impact on student college plans,
racial attitudes, and self-concept; the impact of community factors on the success of
desegregation; and the identification of policies which seem likely to help schools
become truly integrated. There is much to recommend such a broad approach.

After careful thought, we have elected not to offer a design for a single study
which would attempt to deal with all these issues. Rather, we have proposed that
various agencies of the federal government and various private foundations collabo-
rate in an ambitious research program, collecting a large amount of data for a
general data bank on school desegregation and commissioning a number of research
teams to analyze the data. A research program of this kind seems to be the best way
to cope with three factors which complicate the school desegregation issue:

First, a school does not desegregate in a vacuum; a school which experiences
racial difficulties may do so not because of its own shortcomings but because the
community’s political system has undertaken the process of desegregation in such
a way as to poison the environment. This means that an effective study of desegrega-
tion must look at the entire community as well as at the school.

Second, we recognize that research on school desegregation must serve many
divergent interests. A portion of the audience is concerned with the impact of
desegregation on achievement test scores; another portion views that question as
trivial and is concerned with the quality of race relations within schools; a third feels
that the important questions all deal with the long-term economic or social impact
of schooling; another is concerned with how a community may desegregate its
schools without suffering unfortunate political repercussions; another is concerned
with the possibility that desegregation of central city schools will cause whites to
run to the suburbs; another is concerned that desegregation might splinter the
minority community and weaken its sense of cultural identity. Each of these ques-
tions (and there are many more) is legitimate, but no single research project can
answer them all.

Finally, any study of school desegregation must come to grips with, and resolve,
a major theoretical issue in educational research: How large is the effect of school characteristics on quality of education? There is a conventional wisdom which argues that efforts to improve the schools are largely futile. The argument is that the differences in staff and facilities between one school and another are reflected only in small differences in the quality of education students receive, and thus to make all our schools as good as our best in terms of staff and facilities would accomplish little. Our research is designed on the assumption that this conclusion is premature, and that a high priority must be given to answering this question.

THEORETICAL APPROACH OF THE STUDY

Section 4 presents the study's theoretical approach; Secs. 2 and 3 present the overall methodological rationale; and Sec. 5 considers how the methodology and theory must be modified in dealing with Mexican-American and Puerto Rican students.

The research design is based on a two-stage theorem (see Sec. 1). First, we argue that desegregation (the assignment of students from Anglo and minority populations to the same school) in and of itself does not alter the quality of the educational experience, except that teachers, students, and school administrators must react to the presence of such groups in the same room. This reaction can, of course, vary enormously—the presence of two groups may result in overt racism on the part of staff and racial violence on the part of students, or it may lead to racially egalitarian behavior by the staff and interracial friendships among students. When racial relations between students and teachers are characterized by friendliness and egalitarianism, we will define the school as integrated. We can now pose the main research question in two parts: If a desegregated school is in fact integrated, how does this affect the academic, emotional, and social growth of students, and does it have any long-term effects on the alumni of such schools? If so, how frequently are desegregated schools able to establish this level of integration, and what can policy-makers do to increase the chances of its occurring?

This means we must study the community's desegregation plan, the reaction of both the community and the school to desegregation, and the racial and educational impact of how the school has dealt with segregation.

The literature on political decisionmaking suggests that the local school desegregation decision be viewed as a set of decisions made by the school board in interaction with the superintendent, the mayor, leaders of various interest groups, minority group leaders, the business elite, the media, the clergy, and intellectuals. Depending upon the social structure that provides the linkages between these groups and determines which ones have more power than others, a tentative consensus is formed and is presented to the public for its reaction. Public opinion—also conditioned by the social structure within which it is expressed—is then more a reaction to the decisions of elites than an independent force. Although the elite anticipation of that reaction may have played an earlier role in the decision, public opinion is heavily influenced by its leadership.

Public opinion on desegregation has two important elements: First, it is very complex, with a great number of internal inconsistencies (the coupling of considerable acceptance of desegregation with widespread opposition of busing is only one example). Second, public reaction to desegregation occurs within a context of steadily increasing cynicism about government—a trend which has been present since the middle 1960s. The key questions then become, how can we unravel the inconsistencies in public opinion to understand its important underlying, consistent themes,
and how can desegregation be brought about without further intensifying public cynicism and alienation?

The general theoretical model of the study of the schools themselves can be characterized as an "input-process-output" model. The emphasis on process in the model means that we are less interested in simply correlating inputs such as school physical and financial resources, student family resources, and community support with outcomes such as achievement test results, and more interested in how these inputs from the school, the student, and the community affect the quality of interaction and among staff and students, and how this in turn creates the school's learning environment. When the school is viewed as a social-psychological-learning environment, it becomes necessary to understand the impact of student motivation on achievement test performance, and more generally the effect of the school on emotional growth, on development of self-concept, and on ethnic relations. Part of the curriculum of the school is the set of lessons which are taught by the pattern of social relations in the school. A school which has good race relations and a staff which treats all students with equal respect teaches racial tolerance as much as it teaches mathematics or grammar.

This theoretical approach leads us to emphasize collection of data on both the attitudes and the behavior of the classroom teacher. Teacher attitudes and behavior are key elements of the intervening process variables in the model—they influence student emotional growth and learning and are themselves influenced by community atmosphere, parent behavior, school policies, in-service educational opportunities, and the behavior of colleagues, the principal, and the central administration.

Just as schools have curricula which are only partly explicit, they also have educational philosophies which the staff may take for granted. The various advisory groups to this research design referred repeatedly to commitment to desegregation on the part of the staff as the key element of an integrated school. This commitment is part of a general philosophy of education which is made manifest in the way teachers relate to their students. The school's philosophy also is reflected in the structure and the curriculum of the school—the way students are assigned in different groups to undertake specific tasks. This in turn affects the kinds of interactions students have with each other, and the kinds of learning experiences students have. Together these three elements—interactions with teachers and administrators, interaction with students, and experience with learning materials—make up the totality of the school experience. We expect that research will show an underlying consistency in these three elements of the school, and we expect the overall effect of all three elements to be powerful.

It is often said that "schools do not make a difference," meaning that the differences between one school and another have only trivial effects on the quality of education. Such a view seems to us inaccurate—it is an overstatement, it is based on inadequate research, and it is based almost entirely on tests of cognitive performance. The differences that Coleman et al. found between schools in student performance on standardized tests after removing the impact of student social class are not trivial. Cognitive differences appear to be trivial in researchers' eyes because they are inexperienced with Coleman's methodology and because the academic community tends to believe that governmental institutions (including schools) are ineffective. Furthermore, we expect noncognitive school effects to be stronger than cognitive effects. We simply do not know how greatly school affects plans to attend college, personal maturity, ability to work cooperatively with others, or attitudes toward one's own and other ethnic groups, but there is good theoretical reason to expect that school effects on these outcomes are substantial. The child spends many of his
waking hours in school, which has, as a general socializing agency, almost as much influence as the family in affecting how the child becomes an adult.

If schools vary in their effectiveness, then it follows that some of the proposals for improvement or reform of public schools will be effective. The frequently quoted judgment "compensatory education has failed" is not based on adequate research. We are interested in evaluating areas in which government at all levels might intervene to alter the environment in the school, in particular:

- The degree of parental involvement, both in the child's education and in the governance of the school.
- The degree to which multiculturalism is incorporated in the school curriculum.
- The degree to which the school curriculum is individualized, either through the use of modern educational technology or through the use of open classrooms.
- The opportunities that the school provides for student nonclassroom activities in expressive arts, school government, athletics, and traditional extracurricular activities.
- The way in which students are allocated to classrooms through homogeneous or heterogeneous ability grouping.
- Ways in which teachers treat students in and out of classrooms.

There are a variety of other school innovations which have potential for improving the quality of education, and this research program is designed to provide at least a partial test of the effectiveness of them all.

AN OVERVIEW OF THE RESEARCH DESIGN

We propose a policy-oriented research program consisting of the collection of data for a major educational data bank, with a number of small and large research teams under contract to analyze the data. The entire project will require six years for data collection, analysis, and policy recommendations. An overview of the design is presented here; the individual studies are described in Vol. II, and the issue of coordination and management of the various portions is discussed in Secs. 15 and 16.

The data bank would take five years to complete and would contain student test scores, student non-cognitive responses, and student questionnaire data; teacher and principal survey data; classroom observations; interview data with school officials and community leaders; and case study material. The sixth year would be a "post-research" year, focusing on policy recommendations.

The sample consists of approximately 1600 schools, both segregated and desegregated, selected in groups matched on the basis of student social status. The data collection would proceed in two phases: Phase I is a one-year longitudinal study of the 1600 schools, coupled with interviews with community leaders and school administrators. Phase II, lasting for three more years, would consist of detailed studies of subsamples of the school districts and schools studied in Phase I.

The data from Phase I can be analyzed in a number of ways; we suggest two major studies.

The community reaction survey (Sec. 6) uses data from school district leaders and parents to analyze community reaction to the desegregation issue; it should produce policy recommendations as to how communities should desegregate their schools.

The large-scale longitudinal survey (Sec. 7) is a broad-ranging analysis of school effectiveness, using data on teachers, principals, and the community to identify
factors that predict improvement in student scores between the first and second years.

Thus Phase I spends two years in wide-ranging data collection and analysis, studying many factors in a large sample of schools. Phase II, conducted during the third, fourth, and fifth years of the project, uses smaller samples and is focused on gathering detailed data on a few topics of special interest. We recommend five main studies in Phase II:

The student panel survey (years 3 and 4) (Sec. 8) extends by two years the longitudinal data collection of school effects in about 270 schools to gather data on school effects over a longer period of time.

The survey of newly desegregated schools (years 3 to 5) (Sec. 9) focuses on 120 schools which have recently desegregated and studies them for three years to examine the problems that arise, and to identify promising solutions to these problems.

The survey of innovative elementary schools (years 4 and 5) (Sec. 9) concentrates on 104 elementary schools which have particular innovations in use to assess their effectiveness; the survey of innovative secondary schools is a parallel study of junior high school and high schools with promising practices under way.

Finally, the community reaction survey should be continued from Phase I, focusing on those school districts which are in the process of desegregation to observe how the community and its citizens change over the five years of our data collection effort.

The research should also include a number of smaller studies, with some laboratory research, some theoretical writing, and some unsolicited research.

The report discusses one major option in the design; it recommends that the study of innovative schools be changed to include a genuine experiment with random allocation of innovations.

The research design is outlined in Fig. S.1. The program is large; and although it involves fewer respondents than did Equality of Educational Opportunity (the Coleman report), each survey instrument collects richer data, the surveys are supplemented by case study and observational work, and much more analysis is proposed.

The research program would serve the research interests of a number of federal agencies and private foundations, and we therefore recommend that several such groups collaborate in funding the program, establishing an interagency monitoring team to supervise it. We estimate that the costs of the six-year study at 1974 prices would be between $9 million and $15 million. (We have also outlined several modifications of the program, one of which would reduce the total budget by about one-half). This does not necessarily represent an increase in total federal and foundation funding for research in education and race relations. We assume that a large fraction of the more than $2 million required annually by the study can be diverted from present funding programs, thereby integrating the goals of many agencies which now fund research on quality of education, race relations, and school desegregation.

THE RATIONALE FOR THE RESEARCH DESIGN

Section 2 points out several reasons why a policy-oriented research program including diverse studies and multiple research teams is necessary. The debate over the methodology of the Coleman report argues persuasively that provision must be made for different researchers using different statistical methods to attack the same problem. The intensity and partisanship of the debate over the Coleman report also has convinced us that in this context the objectivity of science is partly mythical; even the best researchers in education bring strong ideological preferences to their
work. In extreme cases, different researchers will produce different statistical results; but even if their results agree, they may still interpret them differently. And most important of all, they will ask different questions of the same data. The policymaker's only hope is to fund competing researchers so that he may formulate policy by balancing their different findings and interpretations against one another. It would be hopelessly expensive to fund all the needed research by having each research team collect its own data (or else would achieve a false economy by producing a large number of data sets all inadequately small and narrow in focus). Data collection is expensive, and we are therefore suggesting that the data bank be thought of as a major capital investment for widespread use throughout the scientific and policy-making communities.

One reason why a data-bank approach is necessary is that longitudinal data are needed, and longitudinal data are both expensive and impractical for the individual researcher, who can rarely afford to wait for quality data to slowly appear.

Past research has relied far too heavily on evaluation of cross-sectional data (i.e., data collected at only one point in time). Longitudinal data permit us to measure a potential cause before we measure its possible effect, and thereby eliminate a number of the problems which plagued the interpretation of the Coleman report. A stronger technique would be to use a genuine experimental design. An experimental design—wherein a hypothesis that A causes B is tested by first measuring B in a number of schools, then randomly treating certain schools so they will have trait A
while other schools go untreated, and then measuring B again—is the only scientifically precise way to test a theory. However, it is obviously impossible to treat some communities randomly by desegregating their schools while others remain segregated as controls. Consequently, we have adopted a strategy of using longitudinal data with matched sets of schools in a quasi-experimental design.

In a quasi-experimental design, we are unable to assign at random the treatment we are studying; nevertheless we try as hard as possible to construct all the elements of an experimental design, and to study the design carefully in order to discover possible sources of bias and correct for them. In this case, we attempt to select matched groups of schools, similar in every way except racial composition, and then design a statistical analysis method to eliminate the effects of possible bias. Quasi-experimental designs are usually very complex, especially in the way they draw samples; this research program is no exception.

A variety of data-collection methods are to be used in creating the data bank. Traditional survey techniques as used in the Coleman report are valuable, especially in light of the advances in those techniques in the last decade. Nevertheless, there are certain things that they cannot do, and then more expensive methods such as systematic observations and case study methods must be used. These methods and surveys complement each other, so that each is more powerful when used collaboratively.

In order to understand the power of this multiple-project approach, let us consider as an example one specific hypothesis, shown in Fig. S.2:

Hypothesis: In desegregated schools, minority student achievement will be higher than in segregated schools if in-service education for Anglo staff is provided to induce teachers to treat students in an egalitarian fashion. This will raise minority achievement because it will increase student self-esteem, which will in turn motivate students to perform better on standardized tests.

![Diagram showing inputs, processes, and outputs]

Fig. S.2—Example taken from the theory underlying the research program

To some researchers, this hypothesis is self-evidently false. It is supposed well known that in-service education is invariably poorly done and that teachers resist learning new modes of behavior. But in fact the hypothesis has never been tested; there is no basis in fact for assuming that attempts to develop in-service programs to assist teachers in desegregated schools have been futile.

The evidence for this hypothesis should be very strong before a major policy recommendation can be made (in this case, a recommendation for spending more on
a particular kind of in-service education to alter teacher attitudes). To provide strong evidence, each link should be established, ideally with several independent pieces of evidence. To do so will require a variety of different types of data, for each link raises peculiar methodological problems.

The research program will provide a variety of evidence to test each step of the argument. Let us examine the model, working back from the dependent variable step by step. For simplicity of exposition, let us suppose that the hypothesis is true exactly as stated. First, the evidence that self-esteem affects achievement would come from four sources. One is the student panel survey, where we would see that students with high self-esteem in grade 3 (for example) show higher rates of academic growth over the next three years than students with equal third-grade achievement scores and lower self-esteem. This evidence would be supplemented by data from the large-scale study which, with its larger sample size, would show that one-year gains in achievement are associated with higher initial self-esteem when a large number of school characteristics are controlled, and would show the relationship holding for various age groups, for both sexes, in all regions, etc. There would remain several methodological problems (e.g., has self-esteem been accurately measured? for this reason, some laboratory experimentation to document the social-psychological process would be valuable.

The second step would be to show that teacher behavior affects self-esteem and thereby leads to achievement gains. Teacher behavior would be observed in the studies of innovative schools, and we would find teacher egalitarianism correlated with growth in both student self-esteem and student achievement. The student panel study would show that these effects were not transitory, and that the cumulative impact, over three years, of certain kinds of teacher activity had a strong effect on students. The classroom observations in the studies of innovative schools would permit us to describe precisely what teacher actions created a favorable learning environment. The different researchers working on these studies would probably have used different statistical techniques; and they would debate whether the results indicated a "large" or "small" effect.

Three further issues would remain: how widespread is the problem, how susceptible are teachers to influences aimed at changing their behavior, and what kinds of policies are effective in producing change? The first question is partly answered by the studies of innovative schools, where the behavior of a large number of teachers would be observed. The studies of newly desegregated schools would be especially useful, since they would reveal whether or not this is a problem which will tend to correct itself as teachers (and their principals) gain experience with desegregation. The second question — measuring the extent to which teachers are open to change — would be addressed by several studies, each comparing teacher personal characteristics, backgrounds, previous experiences, and present teaching environments to see which factor or combination of factors was most important in influencing teacher behavior. Finally we would arrive at the most difficult question — searching through the mass of school data in the large-scale longitudinal study to locate the promising in-service programs, and then sampling the schools with these programs for the innovative schools study and evaluating the programs in detail. (In the experimental alternative to this design, an in-service program would be designed and implemented in a random sample of schools).

This is only part of the story — it excludes teacher satisfaction, student race relations, the effects of staff racial composition, and many other factors. In this example we have selected only a small fragment of the larger model. Nonetheless, we see that a variety of data — surveys, experiments, long-term and short-term panel designs, case studies — and a variety of analysis techniques are needed to build a
convincing argument. This is why we have recommended a policy-oriented research program rather than either a single project or a collection of unrelated studies.

THE FIRST PHASE OF THE RESEARCH: THE FIRST AND SECOND YEARS

Sampling (Sec. 10)

The sampling aims to provide the strongest possible quasi-experimental design. First, a set of mailed questionnaires and telephone interviews with school administrators in 750 school districts is used to obtain preliminary data about intentional desegregation in each district. These data coupled with census data will be used to draw a sample of 210 segregated and desegregated school districts. Then census data describing elementary school attendance areas will be used to draw a sample of 130 clusters of four or five elementary schools, each containing two desegregated schools and one segregated school of each ethnic group present in the cluster, for a total of approximately 550 schools. In some cases the cluster or schools will come from a single school district; in other cases the cluster will be drawn from two or three neighboring districts. The matching of census tract data is done so that the Anglo-American students in their segregated school and the desegregated schools will be of the same social background; similarly the black, Mexican-American, or Puerto Rican students will be of similar social background in the schools where they are present. The junior high schools and high schools that these elementary schools feed will also be selected. The final sample consists of the attendance areas of 550 schools, and the program will study the elementary schools, junior high schools, and high schools that serve these attendance areas. If we assume for simplicity that all school systems sampled use a 6-3-3 grade organization, this would yield a final sample of approximately 1600 schools. The sample will include cases of black and Puerto Rican desegregation with Anglo-American students in urban areas in the North, black-white desegregation in the urban and rural South, and Mexican-American/Anglo (and Mexican-American/black/Anglo) desegregation in the urban North and in the urban and rural Southwest. We estimate that 160 of the 210 districts will be used in the school sample.

For purposes of sampling, a segregated school is defined as one in which either more than 90 percent or less than 25 percent of the student body is of Anglo-American ethnicity; all others are classified as desegregated. This is an arbitrary statistical convention, done in order to provide the opportunity to select clusters of schools from as many communities as possible; the question of whether there is a threshold in ethnic composition which must be exceeded before the benefits (if any) of desegregation occur will be answered in the course of this research program. The use of matched clusters of schools provides the strongest design for evaluating the effects of racial composition and of school characteristics on student outcomes; conventional analysis methods, which artificially match schools by statistical techniques, are not as effective as a matched sample design.

The Large-Scale Longitudinal Study of Schools (Sec. 7)

In the first year of the research program the entire third-grade and sixth-grade class of every school will be administered attitude questionnaires and achievement tests. In addition, questionnaires will be given to 8 teachers of each ethnic group on
the school staff. The principal will also be interviewed. Finally, 12 parents of the third-grade students of each ethnic group will be interviewed by mail or telephone. Ninth- and eleventh-grade students will be surveyed in secondary schools, but in order to reduce the sample size, only 35 students of each ethnic group present will be administered questionnaires. (Parents will not be surveyed for grades 6, 9, and 11.) In the following year, the same students and teachers will be resurveyed, with additional teachers and students added where the student body has changed schools in the intervening year or where student transfers have reduced the sample size appreciably.

Contracts will be let to analyze these data in a variety of ways; the main emphasis will be upon isolating the critical elements of the pattern of race relations in desegregated schools and on measuring the impact of teacher attitudes, classroom behavior, and a variety of school programs on student growth over the year. The major dependent variables in this and in all other school studies will be the following:

- Achievement test scores
- Educational and occupational aspirations
- Attitudes toward other ethnic groups
- Attitudes toward one’s own ethnic group
- Self-concept
- Feelings of happiness
- Attitudes toward school
- Sense of control of one’s environment
- Ability to work cooperatively

The structure of the large-scale longitudinal survey of schools is shown schematically in Chart 1.

**The Study of Community Reactions to Desegregation (Sec. 6)**

The large-scale longitudinal study of schools takes place in approximately 160 school districts. In each of these districts, interviews will be conducted with 20 community leaders, who will be asked to describe in detail the desegregation plan in their school district (if any), the community factors which influenced the development of the plan, and the community’s reaction to it. These interviews will provide data for the first large-scale study of the effects of alternate methods of desegregation planning and the effects of alternate techniques of desegregating communities. The major independent variables in the study are the characteristics of the community leadership (the behavior of the mayor, the superintendent, the school board, minority leaders, and the business elite) and the characteristics of the planning process (number of meetings held, role of the media, degree of civil rights activity, and the role of the federal government and the courts). The study will also characterize desegregation plans—by number of students assigned, grade levels, amount of transportation provided, etc. The major dependent variables are the response of the community as a whole (the degree of conflict and controversy, acceptance of desegregation by community leaders), the electoral response of the citizenry (votes against school bond and tax referenda, votes against incumbent school board members), and the attitudes of parents of each ethnic group (surveyed in the first-year school survey in a sample of these same districts). This study will be of policy significance to jurists who must sometimes order the implementation of desegregation plans, to federal officials who must make decisions about how to intervene in local communities, and
Chart 1
THE LARGE-SCALE STUDY

Year 1

Sample: 548 schools at each grade level in 160 school districts, including segregated and desegregated schools with blacks, Puerto Ricans, Mexican-Americans, and Anglo-American students. Sample is drawn by using a screener survey of 750 school districts to supply data to sample 210 school districts, from which schools are then sampled.

Data: In each of grades 3, 6, 9, 11: all students in grades 3 and 6, 35 students of each ethnic group for grades 9 and 11, 12 parents of third-graders of each ethnic group, 8 teachers of each ethnic group, the principal, and observations made by the data-collection team.

Content: Description of school climate, attitudes and behavior of staff, types of school resources, quality of student interaction, measurement of student outcomes (achievement tests, attitudes toward school, ethnic attitudes, self-concept, aspirations).

Year 2

Data: Repeat all data above except for parent interviews.

Analysis: Wide-ranging, with special focus on effects on all student outcomes of
1. Desegregation, socioeconomic and ethnic mix
2. Teacher characteristics
3. Quality of school race relations
4. Many special school programs or innovations:
   a. Remedial
   b. Nonclassroom activities
   c. Human relations programs for teachers and students
   d. Classroom organization (including achievement grouping)
   e. Grading systems
   f. Parent involvement

...to local school boards and school administrators who must draw desegregation plans and must design a process of community involvement in the desegregation planning. The study is outlined in Chart 2.

One of the most important questions about the response of citizens to desegregation is the degree to which different kinds of desegregation plans influence family decisions to move to the suburbs. Because this issue is of such importance, we propose that there be a separate research project using the data from this study and from the census and school records to measure degree of out-migration from central cities and link this to characteristics of desegregation plans (Sec. 11).
THE SECOND PHASE OF THE RESEARCH: THE THIRD THROUGH FIFTH YEARS

Upon the completion of the large-scale one-year longitudinal survey and the survey of school districts, the research program enters its second phase, wherein subsamples of schools from the earlier study are used as the basis of three more intensive studies: a continuation of the large-scale study in some schools to produce a four-year longitudinal survey of students; a three-year longitudinal survey of newly desegregated schools; and a two-year study of the effectiveness of particular innovations in helping desegregated schools become successfully integrated.

The Student Panel Survey (Sec. 8)

In the student panel survey a subsample of schools is selected, and the student interviews from grades 3, 6, and 9 of the large-scale survey become the first two years of a four-year longitudinal survey. A sample of kindergarten students is added, so that at the end of four years, four panels have been completed: one beginning in kindergarten and ending in third grade, a second covering grades three to six, a third covering grades six to nine, and the last grades nine to twelve. A sample of parents of students in all schools is interviewed near the beginning of each panel. This study provides us with our best data for assessing the long-term impact in the school of racial composition, racial climate, educational programs, and teacher behavior. Furthermore, by providing measures of motivation and emotional state over a four-year period, the study enables us to measure the stability and growth of student
personality attributes, and to measure how motivation at one time influences subsequent performance. Finally, the parent interviews provide unusually good controls for family background to be used in the analysis. This will be the first study producing high-quality data on a large sample of schools to address any of these problems.

The schools for the student panel survey are chosen by analyzing the first wave of the large-scale study and selecting from it those quartets which provide the strongest quasi-experimental design, both by matching the students in the different schools in the cluster on background characteristics and by choosing the schools with fewer voluntary transfers (to avoid a self-selection bias). Fourteen clusters will be selected as examples of black-white integration, although it is anticipated that some of these will also contain Puerto Rican and Mexican-American students. Six additional clusters are added to provide additional Puerto Rican-Anglo and Mexican-American-Anglo schools. The students surveyed in these schools in the large-scale study make up the student panel, except that the eleventh-graders are dropped and kindergarten students added. Kindergarten students are not surveyed until they are in the first grade, when they are given (orally) a brief reading-readiness type of instrument and a simple questionnaire. In the third and fourth years of the study the students are resurveyed; in the fourth year they will be in grades 3, 6, 9, and 12, so that those in the third, sixth, and ninth grades in year 4 can be compared directly with those in the third, sixth, and ninth grades of year 1, and the twelfth-graders with the twelfth-graders surveyed in year 2. A 50 percent sample of the parents of these students is selected and data collected by mail, telephone, and personal interviews.

The analysis then consists of measuring affective and cognitive growth over the three years, using the parent questionnaire and initial attitudes and achievement to predict growth as accurately as possible, and then using school, teacher, and student environment variables to predict the differences in rate of growth between different schools. Such a study can, for example, assess the cumulative effect of certain teaching behaviors, contrasting students who have had certain types of teachers for three consecutive years with those who did not.

One of the most important results of this analysis will be to estimate the impact of desegregation at various grade levels. The 20 clusters will contain 40 attendance areas in desegregated elementary schools, which should vary in the year at which desegregation began.

It would be useful to follow graduating high school seniors from desegregated schools to see how their experience with desegregation affects their success in college or in the labor force. We recommend that such a study be done, but we believe that it can be done most economically by using several existing longitudinal surveys of young adults (Sec. 13). If analysis of these data fails to provide satisfactory conclusions, the decision can then be made to return to the original eleventh-grade sample of the large-scale study, reinterviewing them in the fourth or fifth year of the survey when they will have had two or three years in college or in the labor force.

The student panel survey is outlined in Chart 3.

The Longitudinal Survey of Newly Desegregated Schools (Sec. 9)

We are interested in how schools change (and hopefully improve the quality of education they provide) as a result of desegregation. We anticipate that the first few years of desegregation are a learning experience for schools, in which they gradually work out, more or less successfully, their adaptation to dealing with desegregation. It is very important that we understand what difficulties they go through in making this transition. This study focuses on schools over time, rather than individual
Chart 3
THE STUDENT PANEL SURVEY

Year 2
Sample: Select 20 clusters of elementary schools which are well-matched on student characteristics.

Data: Interviews with 50% of parents for grades 1, 4, 7, 10 in the elementary schools and the secondary school they feed.

Data: Students in grades 4, 7, 10 surveyed in large-scale study; first-grade students surveyed.

Content: brief version of third-grade form from large-scale survey.

Year 3
Data: Reinterview students in grades 2, 5, 8, 11.

Content: Same as large-scale school study; parent questionnaire contains measures of socioeconomic status, parent aspirations for child, etc. Special high school emphasis on change in career choice.

Year 4
Data: Reinterview students in grades 3, 6, 9, 12.

Analysis: Effects on three-year change in cognitive and non-cognitive outcomes, of racial and socioeconomic composition of school, cumulative teacher characteristics and behavior, other school characteristics, school racial climate. Analysis of causal relations between cognitive and noncognitive outcomes.

students. Thus instead of pursuing fourth-grade students through the sixth grade, we will successively study four consecutive fourth-grade classes in the same school to see if the school handles each incoming class differently.

We believe that it would be very difficult to capture the spirit of this change in schools with standardized questionnaires. We therefore propose that questionnaires be supplemented by detailed informal observation of both the school and the community by trained social scientists. This study will focus both on recording the day-to-day behavior which makes up the climate of the school and on the day-to-day decisions which accumulate to form school policy. In the community, the research focuses on community leadership, attempting to see how (and why) it sets the tone for the community's racial relations. The research will be structured to benefit from the richness and creativity of case study work as well as from the comparative method and the ability to test case study hypotheses against standardized data at various points. The result should be a very effective project whose conclusions can be simultaneously imaginative, sound, and policy relevant.

On the basis of our reading of the literature, we recommend that the study of newly desegregated schools focus considerable attention upon the policy-making process in the school, and particularly the role of parents in newly desegregated schools. We anticipate that clear policy recommendations about how to involve parents in desegregated schools will come from this study.

We propose that the sample for this study consist of 40 desegregated schools at each grade level—4, 7, and 10—selected in matched pairs from black-white clusters
of schools. Selecting secondary schools and elementary schools from the same geographic areas permits us to analyze the reaction of the students in a neighborhood (in this case an elementary school attendance area) in both their preadolescent and postadolescent years, and it permits us to compare older students with younger ones.

The study is outlined in Chart 4.

**The Study of Innovative Schools (Sec. 9)**

We propose two studies of schools that have undertaken any of several innovations which have promise for improving the quality of education in desegregated schools.

<table>
<thead>
<tr>
<th>Chart 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STUDY OF NEWLY DESEGREGATED SCHOOLS</strong></td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
</tr>
<tr>
<td><strong>Sample:</strong> Select 20 matched pairs of desegregated schools at each grade level, all desegregated within past 3 years.</td>
</tr>
<tr>
<td><strong>Data:</strong> Pretest second cohort: (third, sixth, and ninth grades) at time of large-scale school post-survey.</td>
</tr>
<tr>
<td>Content: Generally same as large-scale survey, with revisions (especially in race relations questions) as needed.</td>
</tr>
<tr>
<td><strong>Data:</strong> Begin case studies of sample of these schools.</td>
</tr>
<tr>
<td><strong>Year 3</strong></td>
</tr>
<tr>
<td><strong>Data:</strong> Posttest second cohort (now in grades 4, 7, 10). Pretest third cohort (grades 3, 6, 9).</td>
</tr>
<tr>
<td>Content: Revised version of year 2 questionnaire.</td>
</tr>
<tr>
<td><strong>Year 4</strong></td>
</tr>
<tr>
<td><strong>Data:</strong> Posttest third cohort (grades 4, 7, 10). Pretest fourth cohort (grades 3, 6, 9).</td>
</tr>
<tr>
<td>Content: Revised version of year 3 questionnaire.</td>
</tr>
<tr>
<td><strong>Year 5</strong></td>
</tr>
<tr>
<td><strong>Data:</strong> Posttest fourth cohort (grades 4, 7, 10). Conclude case studies.</td>
</tr>
<tr>
<td>Posttest: 12 parents of third-graders in each ethnic group.</td>
</tr>
<tr>
<td>Content: Parent questionnaire focuses on parent involvement, perception of school quality.</td>
</tr>
<tr>
<td><strong>Analysis:</strong> Compare growth rates (cognitive and noncognitive) of the four successive cohorts and determine school factors which lead to improvement in educational performance over time: assess effects of duration of desegregation, racial and socioeconomic composition, in-service education for staff, desegregation plan features (e.g., amount of busing), behavior of district and school administrators. Analysis of case studies to develop other hypotheses about effective desegregation.</td>
</tr>
</tbody>
</table>
We assume that three such innovations will be considered for elementary schools and an additional three for secondary schools. Secondary schools and elementary schools are very different from each other; we recommend that these schools be separated into two different projects for that reason. Decisions about what innovations are worthy of concentrated study can be based both upon existing literature and upon the conclusions of the large-scale longitudinal survey of schools. On the basis of the literature, we recommend that two of the three elementary school innovations be the use of multicultural curricula and the use of individualized instruction. In secondary schools we recommend that there be evaluations of the impact of human relations programs and of the structuring of student nonclassroom activities, with special emphasis upon student government, expressive groups such as drama and music, and athletics.

In addition, we recommend that the large-scale longitudinal data tape be searched to verify that these are promising programs and to select one additional elementary school and one additional secondary school program whose effects seem positive.

Sampling would be done by selecting those schools which had the most highly developed forms of these innovations, and a sample of control schools would be added. The final sample would be a maximum of 104 schools in each grade level (26 for each innovation and 26 controls). Students in the third, sixth, and ninth grades in these schools would be resurveyed in the fourth, seventh, and tenth grades, and a new group of students in the third, sixth, and ninth grades would be added. When these students are resurveyed in the spring of the fifth year, we will have a total of 3 one-year longitudinal surveys with which to measure the effectiveness of the innovations being studied.

In order to understand the way in which the school programs affect the students, detailed observation of classroom teachers should be undertaken. The study of innovative schools is outlined in Chart 5.

Continuation of the Community Reaction Study (Sec. 6)

The community reaction study continues collecting data in Phase II of the study. Additional screener surveys are conducted to locate newly desegregating districts and to gather records of local school referenda and school board elections. Case studies of desegregating districts are done in the third and fourth years; and parents and district leaders are resurveyed in the fifth year. For the districts in the process of desegregation, we have a before-and-after longitudinal design which should be very effective in locating those aspects of community leadership and community decision-making which produce a successful desegregation effort and minority and majority group parent and leader support.

The continuation of the community reaction survey is outlined in Chart 6.

Other Studies

The report outlines a number of other study projects and one major option in the design. The most important of these are described below.

Use of Laboratory Experiments (Sec. 14.) Understanding the process by which particular school programs, methods of teacher in-service education, and forms of administrative behavior affect students requires that we develop some fundamental knowledge about teacher-student relationships and about the role of self-perception in affecting student school performance. These studies can best be undertaken by the use of laboratory-style social-psychological experiments with
Chart 5
STUDIES OF INNOVATIVE ELEMENTARY
AND SECONDARY SCHOOLS

Year 2
Analysis: Data from large-scale longitudinal study to select promising innovations.
Sample: Desegregated schools with extensive forms of 3 innovations at each grade level, plus control schools: n = 104 elementary schools, 208 secondary schools.

Year 3
Data: Pretest second cohort (third, sixth, ninth grades). Conduct classroom and school observations.
Content: Questionnaires based on large-scale survey forms, revised to include additional data on innovations of interest; observation instruments keyed to innovations.

Year 4
Data: Pretest second cohort (fourth, seventh, tenth grades). Pretest third cohort (third, sixth, ninth grades). Conduct classroom and school observations.
Content: Revisions of year 3 instruments.

Year 5
Data: Posttest third cohort (fourth, seventh, tenth grades). Complete observations.

Chart 6
CONTINUATION OF COMMUNITY REACTION SURVEY

Year 3
Data: Screener survey of 160 districts.
Content: Extent of desegregation. Case studies of districts in process of desegregation.

Year 4
Data: Continuation of case studies.

Year 5
Data: Screener survey, 160 districts.
Content: Bond, tax, and school board voting data.
District leadership survey: in case study districts.
Parent survey: Third-grade parents of schools in case study districts.
Analysis: Causes of parent support and disaffection. Factors helping bring about successful desegregation.
students. We are especially interested in the way in which a student in a desegregated classroom reacts to the behavior of students of another ethnic group and to his teachers in altering his own expectations of his ability to perform, and how this affects his actual performance. We propose that a series of such experiments be undertaken.

**Experimental Allocation of Federally Funded Programs (Sec. 12).** There is a serious methodological difficulty with using nonexperimental methods to analyze the effects of school innovations. A longitudinal study is a considerable improvement over the more common one-point-in-time survey; but merely knowing the starting points of students in different types of schools and knowing that a program exists does not permit us to interpret differential rates of growth as being unequivocally the result of the program. In this particular case, we anticipate that the schools with the most extensively developed innovations will be schools with unusually capable teaching staffs. Thus the apparent effects of the program may be simply the effects of a highly qualified staff. The only certain method of isolating the effects of the program is then to assign the programs randomly to schools. This can be done if a bloc of federal aid to desegregated schools is set aside for these purposes and if a mechanism for designing innovative programs, introducing them into schools, and evaluating their impact is developed. We describe such a procedure and recommend that the study of innovative schools be altered in this fashion. We further recommend that the initial large-scale survey of schools incorporate a similar experimental federal funding of innovations.

The use of such a design would greatly simplify both the sampling and the statistical analysis and would indeed reduce the overall costs of the research. With such an experimental design it should be possible to arrive at very firm conclusions about the effectiveness of certain programs at the end of the study. However, it would require considerable interagency coordination within the federal government. The experimental version of phase II of the study is outlined in Chart 7.

A number of the potential client agencies regularly review unsolicited proposals dealing with research on school desegregation. We anticipate that a number of these studies could be conducted more economically and lead to sounder conclusions if they were linked to the data base of the research program. We therefore recommend that all relevant government agencies be regularly informed about the data bank and be encouraged to disseminate information widely about the possibility of using the data. We cannot anticipate the types of research which will be proposed, but the extreme flexibility of the data bank would permit a wide range of studies, especially when allowance is made for the possibility of adding additional data using instrumentation designed by the proposal writer.

**Focusing the Research Program Exclusively in Desegregated Schools: A Possible Modification**

Various consultants to this project, including staff members of the Commission on Civil Rights, have proposed that the research program be modified to concentrate exclusively on the problems of desegregated schools and what policy-makers can do to improve them. We have evaluated this possibility and concluded that a very simple modification to the research design—namely, eliminating the segregated schools from the large-scale longitudinal survey and the student panel survey following—would permit this exclusive focus. Such a concentration of focus would reduce slightly the overall costs of the project, but we recommend against this modification; we believe that the study of effects of segregated versus desegregated schooling and the study of characteristics of desegregated schools are complementary, the results
Chart 7

THE EXPERIMENTAL VERSION OF THE
SCHOOL INNOVATIONS STUDIES

Year 3

Sample: Select 125 desegregated schools at each of grade
levels 4, 7, 10, in matched quintets based on sim-
ilarity of cognitive and noncognitive performance
and socioeconomic status of students. Exclude all
schools with unusually high performances.

Award Contracts: To 8 practicing school administrators to develop
innovations, award based on competition among admin-
istrators whose schools are exemplary in large-scale
survey.

Award Contract: To implementation team and evaluation team.

Implementation: Hold meeting to involve principals of sample schools
in planning process.

Data: Survey students and teachers, grades 3, 6, 9.

Year 4

Sampling: Randomly assign 25 schools to each innovation and
randomly assign technical assistance workers to
schools and innovations (each worker handles 3
schools with different innovations). 25 schools
at each grade level become control schools.

Implementation: Award unrestricted grants to control schools; imple-
mentation team begins in-service education late sum-
mer and implements innovation in fall.

Data: Resurvey fourth, seventh, tenth grades; initiate
second longitudinal study by surveying third, sixth,
ninth graders; classroom observation, case studies,
student panel surveys.

Year 5

Data: Resurvey fourth, seventh, tenth grades to complete
second longitudinal study of innovation effects.
Analsis: Experimental design analysis of effectiveness of
innovation.

Sampling Note: This sample is also used for newly desegregated
schools and student panel studies.

of each study helping us to understand the results of the other. This and other
possible modifications are discussed in Secs. 15 and 16.

FROM RESEARCH CONCLUSIONS TO POLICY
RECOMMENDATIONS (Secs. 15, 16)

It is a problem of great concern that a simple increase in the amount of research
on school desegregation will not automatically lead to an increase in the number of
sound policy recommendations. Existing research on social problems has often failed
to make clear connections between research and policy. This problem cannot be
solved by asking researchers to focus on policy, since policy recommendations are not
within the area of competence of social researchers. Rather it is the task of persons in policy-making positions to analyze the research results (with the assistance of a technically trained staff of consultants) and draw the policy recommendations from them. This is a difficult task, and we recommend that a group of policy-makers be brought together very soon after the program is begun to develop the machinery to translate research findings into policy recommendations. During the sixth year of the study, as the last of the final reports are being prepared, an intensive set of activities—to synthesize conflicting research results, to order the research findings in terms of their policy priority, and to prepare a readable summary of the findings—should be undertaken. This process should then lead, at the end of the sixth year, to a set of recommendations to the President, the Congress, state and local officials, and the nation’s citizens.

This research program should considerably advance our knowledge—of schools, of race relations, and of school desegregation—and should permit us to apply that knowledge to produce policy recommendations in the following areas:

1. What procedures on the part of federal agencies, courts, local government, and school administrators are most likely to produce successful desegregation? This involves a host of separate issues. At the federal level this includes use of regional desegregation centers and technical assistance programs, the preferred amount of time between a court order and implementation, and the best ways in which to use federal funds; at the local level, this means recommendations about the role of the mayor, city council, and business elite, the use of communications media, and methods of citizen participation.

2. What desegregation plan is preferred in a given situation? This means recommendations about optimal ethnic and socioeconomic mixes, preferred grades to begin desegregation, and preferred transportation plans; it also means recommendations about staff assignment and grade reorganization.

3. How large a priority should schools attach to parental involvement in the desegregation process and how can this best be accomplished?

4. How effective is in-service education for teachers and principals, and what techniques are most effective? What are the relative merits of reassignment, early retirement, and additional training for teachers?

5. What problems are likely to arise in newly desegregated schools, and what can administrators do to offset them?

6. What in-school programs and policies lead to effective desegregation for schools of various grade levels, ethnic mixes, and socioeconomic levels, with varying lengths of time of desegregation? This set of recommendations would embrace remedial programs, nonacademic activities, multicultural curricula, individualization of instruction, classroom organization, and achievement grouping; and the use of parents, teacher’s aides, and electronic media. It would also deal with methods of school decisionmaking and principal-teacher and teacher-teacher communication.
ACKNOWLEDGMENTS

We wish to thank those of our colleagues, both at Rand and at other institutions, who contributed to the ideas presented in the proposed design. In particular, Irwin Katz, Christopher Jencks, Robert Stout, Jim Teele, and Pierce Barker have been very helpful with what we believe to be a most important research design.

We wish to thank our advisory panel members: Karl Taeuber, Edgar Epps, Nancy St. John, Marta Valle, Alex Mood, James McPartland, James Coleman, Robert York, Trudi Lucas, Marshall Smith, Ples Griffin, J. Harold Flannery, Ruby Martin, Jack Finger, and Michael Ross.

In addition we wish to thank Carl Sewell, the Joint Center for Community Studies, and the school teachers and administrators invited by the Center to comment on directions and impacts for the proposed research design, as well as Ernest Works, Russell Ellis, Jane Mercer, and Louis Montalvo.

We also would like to thank the staff of our subcontractor, Development Associates, who provided us with many insights as to the concerns of Spanish-speaking minorities in the field of school desegregation.

John Pincus, of Rand's education and human resource program, helped guide the process of this design; we are indebted to him and to the members of Rand's education and human resources panel.

A special thank you goes to our reviewers, who provided comments for improving our draft report: Clarence Bradford, Eugene Grigsby, Daniel Weiler, William Lucas, and Zane Meckler and Joan Middler and their associates in the Los Angeles Unified School District.

Finally, we must acknowledge the assistance given us during the course of this project by staff members of the U.S. Commission on Civil Rights, particularly Gregg Jackson.

The cover photograph is from the files of the Baltimore News American, and we thank them for permitting us to use it.
# CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREFACE</td>
<td>........................................................................................................</td>
<td>iii</td>
</tr>
<tr>
<td>SUMMARY</td>
<td>.......................................................................................................</td>
<td>v</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>................................................................................</td>
<td>xxv</td>
</tr>
<tr>
<td>1</td>
<td>ISSUES IN THE THEORY OF SCHOOL DESEGREGATION</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Desegregation and Integration: What Are They?</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Desegregation and Integration: What Do They Produce?</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>ISSUES IN RESEARCH METHODOLOGY</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>What Are the Criteria of Successful Desegregation?</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Some Major Issues in Research Management and</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Research Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contrasting This Research Program to <em>Equality of Educational Opportunity</em></td>
<td>17</td>
</tr>
<tr>
<td>3</td>
<td>RATIONALE FOR A LONGITUDINAL STUDY OF SCHOOL DESEGREGATION</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>The Conceptual Problem</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Existing Longitudinal Studies in Education</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Strategies for a Successful Longitudinal Design</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>THEORIES OF SCHOOL PROCESSES</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>School Desegregation and the Community</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Desegregation and the School</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Points of Intervention</td>
<td>53</td>
</tr>
<tr>
<td>5</td>
<td>ISSUES IN RESEARCH ON SPANISH-LANGUAGE STUDENTS</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Summary of the Development Associates Report</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Overview of Bilingual/Bicultural Education and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implications for Research</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Impact of School Desegregation of Mexican-Americans</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>and Puerto Ricans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specific Issues</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>Considerations in Selecting Spanish-Speaking Samples</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>Recommendations</td>
<td>94</td>
</tr>
</tbody>
</table>
1. ISSUES IN THE THEORY OF SCHOOL DESEGREGATION

The research proposed in this report focuses on two questions: how desegregation strategies and procedures enhance or constrain equality of educational opportunity, and how such strategies or procedures can most effectively be implemented and will most likely lead to integration. Before dealing with either of these questions, though, we must address the definitions of segregation, desegregation, integration, and equality of educational opportunity.

There are a number of competing, conflicting, and contradictory theories about the effects of school desegregation and integration. At this point, our knowledge of the effects of school desegregation is severely limited, because research either has focused narrowly on one or two outcomes or else has inadequately conceptualized and measured school desegregation and integration. Systematic study would necessarily include the specification of a variety of expected outcomes and the subsequent measurement of actual outcomes relative to them. Unfortunately, the expected outcomes of school desegregation and integration have not been specified adequately, and this contributes to the confusion. In this section we shall attempt to sort out some of the definitions of school desegregation and integration and describe popular expectations and statements about their value.

DESEGREGATION AND INTEGRATION: WHAT ARE THEY?

The first set of clarifications arises in the definitions of the terms desegregation and integration themselves. We will use "desegregation" to mean the creation of schools with ethnically mixed student bodies. A desegregated school is defined as "integrated if the students in the school have equal status and if their relations with each other are harmonious." The two definitions seem to be implied by a number of explicit and implicit statements in the literature about the differences between the terms, but many of these are theoretical rather than operational, and the lines become fuzzy when the theory is applied to observable reality.

Pettigrew (1968) defines desegregation simply as a specification of the racial mix within schools, preferably as more than 50 percent white. He defines effective integration as the realization of equal educational opportunity, which is to be maximized by the "right" mixture of differing socioeconomic status among students and positive student-body characteristics in a desegregated school setting. In defining integration, or effective school desegregation, other authors (Goodlad 1967; Katz 1967-68; St. John 1972; Wilson 1970) also specify such factors as curriculum modifications, changes in school and classroom organization, and the inclusion of students and parents in the decisionmaking process. This suggests we should define desegregation as a necessary but not sufficient condition for integration.

In order to define desegregation operationally, one must first define segregation. Segregation is defined as a state of deliberately maintained imbalance in the unit of analysis so that it differs significantly in some characteristic from the larger unit of which it is a component. Such segregation of its nature excludes some group or
groups within the unit of analysis from access to resources which would facilitate equal participation in the larger unit (Dentler 1966).  

In the case of racial segregation, the question of what constitutes deliberate segregation is crucial to any decision about its illegality in the public schools (Shannon 1973; Fiss 1973; Keyes v. School District No. 1, Denver, Colorado 1972; Cisneros v. Corpus Christi, Independent School District 1972). If racial segregation in the public schools is found to be the result of deliberate activities or policies, the court will probably order desegregation, which is operationally defined as manipulation of the racial mix of schools so that the proportions represented in any given school roughly approximate the proportions found in the school district (California State Department of Education 1969; Flannery 1972). As in the case of segregation, it is hard to assess the success of desegregation unless there is agreement about the operational definition of such terms as roughly approximate and school district.

Furthermore, there are certain educational practices which, although not a priori related to race, serve to keep the spirit of racial segregation alive in a "desegregated" school, and thereby keep the school from becoming integrated. Integration is operationally defined as a state reached in a racially desegregated or nonsegregated school which provides for positive interactions between status equals (Allport 1954) who are of different cultural and economic backgrounds (Sullivan 1972; St. John 1972). These interactions occur both within and outside the classroom. Integration, when thus defined, attempts to create an artificial world within the school. In the outside world a person's worth is largely determined by how much political and economic power he commands, as well as the degree of social prestige associated with any group of which he may be a member. The unique thing about the successfully integrated school is that a child's status or worth is not determined by these external characteristics but by his or her own intrinsic and universally equal value. This may seem strange to those of us who are used to examining traditional power relationships.

Because these definitions of desegregation and integration concern moral issues, they are to that extent normative. This adds to the disagreement among scholars, politicians, educators, and the general public about what desegregation and integration are and what they produce. The view a person or group holds about desegregation and integration, then, is likely to be based on the values he or she holds about race relations issues in general. This section identifies what seem to us to be the dominant values expressed so far about desegregation and integration. Since there is little consensus about this issue, we will not attempt to condemn or justify any one value over the others. We will instead describe them and compare them to each other. The aim is to suggest what information should be collected to assess from a variety of perspectives how well desegregation and integration work in the schools.

DESEGREGATION AND INTEGRATION: WHAT DO THEY PRODUCE?

There are both theoretical and operational differences between desegregation and integration. The literature suggests that there is a difference in the methods

---

1 In the Brown v. Topeka (Kansas) Board of Education decisions, the Supreme Court struck down the "separate but equal" doctrine of Plessy v. Ferguson by ruling that separate (deliberately segregated) education is unequal. The legal distinctions made in Brown between de facto and de jure segregation, however, are rapidly becoming spurious (Foster 1973).
used to achieve each, and it is to this difference that we have first addressed ourselves. They are also different in their goals.

Unfortunately, there is not as much popular agreement about what values are provided or promoted as one would wish. However, the literature and our discussions with school policymakers, practitioners, and policy analysts do suggest general theories about the benefits which will accrue to society as the result of desegregation or integration. We shall attempt to identify these societal benefits, inductively discover the assumptions on which they are based, and describe appropriate process models necessary to analyze the production of social good.

First, there are a number of ways described in which desegregation and integration benefit society or the individual.

A. Improvement of Society Through the Provision of Equity

This view of desegregation is based on the constitutional provision of equal protection under law, equal opportunity regardless of race, creed, or national origin, and inherent faith in the capability of all men. This forms the basis for de jure school desegregation decisions which state that "separate education is inherently unequal." The primary assumption is that some part of the population (usually minorities) have been deprived of equal protection under the law as guaranteed by the 14th Amendment. This view further assumes that, in order to provide equal opportunity for all, the publicly owned institutions of this country must render the same level of services to everyone. These assumptions are then applied to the public schools. It is reasoned that if children of all races are taught together, they will all learn the same things at similar rates and their access to the goods of the society will be equal. In this respect, desegregation is a guarantee that resources cannot be unequally distributed between white schools and black schools. This model of the value of desegregation is one of the oldest and was at one time the most popular view of the problem. Authors describing this view of desegregation or basing research on assumptions of its validity include Coleman et al. (1966) and Wilson (1968).

To a large extent, the Supreme Court decision of 1954 in Brown v. Board of Education, in spite of the social science evidence presented in testimony for the plaintiffs, is based simply on the notion that desegregated schools are a minimum guarantee that school systems cannot inequitably distribute educational capital on the basis of race. The decision is not based on equity notions which assume blacks or whites learn more in desegregated schools or develop "healthier" personalities. Thus this criterion is minimalist. It is also the law. All subsequent models assume desegregation and are addressed to characteristics of desegregation and/or integration associated with different social goals and values.

B. Improvement of Society Through the Provision of Minority Contacts with the Dominant Culture

This view of the value of desegregation assumes that minority children learn better when they are exposed to white children. This view has become unpopular because it assumes that minorities are deficient in some way (they need the presence of whites to learn) and that no provisions are made for different cognitive styles. There is assumed to be one body of knowledge to be mastered, and one way of mastering it, and desegregated schools are supposed to provide societal improvement by exposing minority children to this knowledge and method of mastery. If the child does not learn as prescribed, he is assumed to be deficient in some way, and he is often either discarded by the school, shunted to a low-academic-ability group,
or becomes a candidate for a compensatory program which will bring him to the accepted cognitive standard. This theory of desegregation is based on the "cultural deficit" models described by Miller (1962), Lewis (1966), Liebow (1967), and Moynihan (1965). Others who extend the concepts presented by those authors to infer a similar hypothesis about the value of desegregation include Handlin (1966) and Amir (1969).

C. Improvement of an Individual Through Provision of a "Locus of Opportunity"

This view of desegregation purports to have no (or few) societal spillovers and is generally articulated by upwardly mobile minority parents who have grave doubts about the efficacy of the all-minority school. They normally do not view the all-white school as intrinsically better, but they perceive it as the center of a "locus of educational opportunity" for their child. A parent who holds this view may move his child from a minority school to a majority school after reading about the majority school's higher percentage of college attendance, higher average scores on standardized tests, or larger number of teachers trained at prestigious universities. The parent may disavow any social benefit in the change of schools and insist that his actions are motivated purely by the improved educational opportunity and his assessment of the child's true capabilities. This is epitomized by the black mother who said, "Going to school with whites is no guarantee that my child will learn, but it is a guarantee that he will be taught." This theory of the value of school desegregation is often expressed by middle-income minority parents and is reported in the literature by Teele (1973) in a case study of Boston's Operation Exodus, a voluntary school busing project.

The next group of values are generally represented in the literature as values promoted by the integration process. While the benefits provided by desegregation are compatible with each other, the benefits provided by integration are sometimes mutually exclusive or contradictory. We wish to make it clear that our purpose is not to promote one of these points of view over the others, but to describe the characteristics of the most commonly expressed opinions about the benefits promoted by integration. To this end, the models will largely be described in their purest or most extreme form.

D. Improvement of Society Through a Reduction of Ethnic Diversity

This view of integration holds that one result of interactions is that interaction between minority and majority children will cause the minority child to become more like the majority child. The result of this similarity produces a range of outcomes from assimilation to acculturation. This similarity between them, it is hoped, will encourage the minority child to emulate the white child in affective areas and proceed to take his rightful place in the alleged melting pot of American culture. It is further assumed that this is what both majority and minority groups want to happen, and the proponents of this philosophy point to the assimilation of other ethnic minorities (like the Italians and the Irish) into the "American" way of life. The assumption of this approach is that structural assimilation (mutual participation in institutions, increased rates of interaction among majority and minority members, and increasingly intimate interaction) will lead to one of two processes producing cultural uniformity. Either it will lead to "Anglo-conformity" (Gordon 1964), or at least majority conformity, or it will lead to a new synthesis of existing
majority and minority subcultures. In either case, the supposition is that the ethnocultural heritages are lost in a new culture uniformly shared. Acculturation, then, is distinct from assimilation but is, in this view, a necessary and inevitable result of it. The view stated in Model F (below) is that it is neither necessary nor inevitable.

E. Improvement of Society Through the Revision of Norms or Values

During the late 1960s authors began to write about integration as distinct from desegregation. They began to say that the simple provision of equity was not a sufficient benefit, and they began to rethink the previously accepted advantages of the contact and assimilation models of societal benefit. Some of these authors said that the norms and aspirations of minorities were different from each other and from those of the majority, and that the presence of minorities in America dictated changes in the country's norms and aspirations. Others said that there was room in America for more than one set of norms and aspirations, and that the presence of minorities demanded that the system provide a multiplicity of ways of achieving those aspirations. They further said that the benefits of integration were derived from societal acceptance of the values of a variety of cultural groups. This model is the reverse of Model B described above. That model suggests that the benefits of desegregation and/or integration accrue to minority group members. This model suggests that the benefits occur to majority society. These are not necessarily contradictory. They are simply focused on different aspects of the potential benefits of school desegregation. This model is particularly important with regard to desegregation of Spanish-speaking minorities, since bilingual and bicultural education programs are seen to benefit Anglo students. The writers who describe these benefits include Baratz (1969, 1970), Amir (1969), and Deslone (1972).

F. Improvement of Society Through the Promotion of Multiculturalism

The next logical step in the progression of the literature concerns the benefits derived from multicultural education. This group of writers says that integration promotes the greatest benefits when children make contacts with a multiplicity of cultures. This takes the pure contact model and makes it both interactive and multiple. Children in multicultural settings learn about cultures, norms, and values which are different from their own, but they are not encouraged to adopt other values or revise their own. The literature suggests that this is of value because it produces children who are both sure of themselves and comfortable with diversity, and that this attitude will be most successful in a modern world of multiple cultures. Authors describing multiculturalism include Valentine (1971, 1968) and Weinberg (1970).

G. Improvement of Society by the Creation of Culturally Plural Institutions

This body of literature begins to move away from the desegregationist's emphasis on racial balance in all public situations and toward a discussion of the benefits which can be gained by encouraging ethnic segregation in some cases. This literature is of two minds: some of it describes the methods of introducing cultural diversity in a situation where racial balance is impossible to attain, while the rest concen-
trates on the maintenance of cultural identity in a maze of competing norms and values. The literature does not tell us how culturally discrete schools need to be in order to preserve cultural identity and values while providing an education which will prepare the child for life in American society. Some of the authors who take this view of integration include Foster (1973) and Martin (1970).

The last group of products in this discussion of values are those which are viewed as producing higher costs than benefits for participants.

H. Desegregation Provides Nothing of Value; Integration Promotes Nothing of Value

Normally, this is a thesis held by critics of desegregation or integration efforts. They do not question the value of equity or any other "benefits"; they simply doubt that school desegregation or integration provides or promotes them. They usually point out the artificiality of sending children from neighborhoods that are racially discrete enclaves into racially mixed schools and then back to the racially discrete neighborhoods. Even in the case of integration,2 these critics doubt if an artificial world of status equals is possible, and some say that such an idyll is not desirable. School, they assert, "should prepare children for life!" Most of the accounts of these points of view are related in case studies of school desegregation (Bonacich and Goodman 1972; Bouma and Hoffman 1968) or in reports of surveys or public opinion polls (Wall 1972). The proponents of this view tend to use four or five basic arguments to attack the value of school desegregation.

One of these arguments describes desegregation, as it presently operates, as a method of confirming prejudicial suspicions about other racial groups. Critics point to interracial conflict, lack of cross-racial social interactions, and differing styles of speech and dress in desegregated schools. They say that children are impressionable, and that conflicts at an early age may become the source of later hostilities and frustrations.

Another of the arguments against the value of desegregation centers around the inconvenience it may cause. To these critics, any benefits gained in the desegregation process are outweighed by the hidden costs incurred by the child and his parents. For example, some critics argue that it is unimportant who a five-year-old sits next to in kindergarten if he is too tired from an early-morning bus ride to learn; while others say that many parents feel they are purchasing a particular school when they buy a home in a certain neighborhood, and to deprive them of that school is tantamount to robbery. The elimination of neighborhood schools brings to mind a child becoming ill at school, but whose parents are unable to reach him quickly; or the sense of alienation parents may feel about participating with a school which is out of their immediate residential neighborhood.

Another attack on the value of desegregation stems from the fear that achievement will fall after desegregation. The reasoning is that the teacher will have to teach to the lowest common denominator in a large classroom, which, in the presence of students with low socioeconomic status, may mean that the rest of the class will be frustrated, and prevented from learning at their normal pace. Those who counter this argument with a discussion about the uses of tracking in a desegregated school will soon have to face the possibility that classrooms may then be resegregated in an attempt to provide each youngster with his maximum educational advantage.

2 These critics are less likely to regard desegregation and integration as distinct phenomena; the results, they say, are so dismal as to make any distinction meaningless.
A final argument by those who oppose desegregation is quite different and comes from a different group. It is that school desegregation may promote a loss of racial identity. The critics who focus on this outcome are usually referring to the undesirability of assimilation or acculturation. They say that school desegregation in the presence of unequal power relationships will never provide for more than one set of standards; therefore the values, culture, and cognitive style of the minority child will necessarily be overwhelmed by those of the majority. The sense of this argument is a little different from the previous ones, because it acknowledges the possibility of integration strategies which provide for interactions among status equals. Mainly, these critics describe a pessimistic view of the possibilities for such interactions, given the existing distribution of power in this society.

This brief synopsis of the often conflicting values people have articulated about school desegregation and integration is intended to delineate the field in which any comprehensive study of school desegregation must organize its approach. In doing this, we hope to describe a context for a design which is intended not to examine any one theory about desegregation or integration, but all of the dominant theories. In an area with so little agreement, we feel it is our obligation to make use of design methodologies which are as diverse as the hypotheses they will be testing.

Positive equality of educational opportunity is a goal of integration and of different desegregation strategies. The prevention of inequalities is the goal of desegregation per se. This, the equality ratios described under Model A above, is the minimum required practice of public schools in the United States. It simply insures that schools do not increase inequality. Two further requirements exist beyond this minimum: one is that the simple fulfillment of the letter of the law does not prevent fulfillment of the spirit of the law; the other is that the strategies and procedures used in implementing the law do reduce existing inequalities or promote equality. Model H is a statement of possible problems pertaining to the first requirement. Problems with regard to the second and third requirements are outlined in Models B through G.

Thus, we assume that desegregation is the law of the land and will in some form become a fact of life. The only question is how. The answer to how it should be a calculation of the balance among the various social goods and values outlined in the models above.

However, in addition we take the position that the promotion of equality requires the promotion of integration. Equality requires equal access to usable and marketable resources. These are resources that include educational attainment or human capital but also include characteristics more elusive to quantitative measurement, such as self-esteem and self-confidence, ambition, motivation, and sophistication. All require a childhood environment— including school— which is supportive and encouraging. This research is concerned with locating the factors that can create this environment.
2. ISSUES IN RESEARCH METHODOLOGY

Our research design can be described as longitudinal—using repeated observations on the same student or teacher. The issue of longitudinal versus one-time observation is complex enough to merit separate treatment in Sec. 3.

In this section we will focus on the other main issues of the rationale for this design, which can be summarized by saying it is based on the belief that policy decisions about school desegregation require that a number of independent researchers should work both in cooperation and in competition, using a wide variety of research methods, ranging from surveys to observational methods to laboratory-style experimentation. They should use a variety of criteria for deciding when a school is a success and should attempt to explain the desegregation process, rather than merely correlate racial composition of schools against student performance. Research conceived in this fashion will be quite different from that which now exists on school desegregation.

In the past few years, the main contribution of social science research to the national debate over school desegregation has consisted of presenting data on the relationship of racial composition of schools to the cognitive test performance of minority and majority students. The assumption underlying this is the assumption of evaluation research—that national policy on a program such as school desegregation could be made on the basis of determining whether its overall benefits exceeded its costs. After considering this model, we have in this report proposed a much broader research program, which goes not only beyond the use of cognitive test scores as a criterion of benefits but beyond the whole concept of evaluation research to a broader conception of the research agenda. Rather than designing an evaluation project, we have designed what may be better called a policy-oriented basic research program.

Before proceeding further, let us define these terms. An evaluation project consists of the comparison of two groups—one which has been subject to a well-defined treatment, the other a control group—in order to determine which scores higher on some well-defined measure of the goal of the treatment under investigation. The assumption underlying this is that if the treatment is found to be successful, a near-identical treatment could be administered as a national policy in an environment similar to that in which the evaluation was conducted and would lead to similar benefits. In proposing a policy-oriented basic research program, we are recommending that several such evaluation projects be combined, conducted in the context of basic research on the social processes which explain why each treatment has all of its various consequences. We believe that a set of interconnected projects is necessary for four reasons:

1. National policy-makers will probably not agree on precisely which of several "treatments" should be evaluated, and part of our project should be a search for new treatments (i.e., ways in which the nation can improve ethnic relations in the public schools).

2. There is a great deal of disagreement about the criteria by which school desegregation or any other federal activity should be evaluated. There are many fundamental and irreconcilable disagreements about what schools should do, so that an evaluation using any one criterion would be viewed as irrelevant by a large fraction of the nation's leaders.
3. Many policy-makers will want to consider the results of any evaluation project in a broader context of information about school desegregation. Basic social science research can be brought to bear in providing that wide context of data.

4. Any evaluation result will be questioned by some members of the scientific community, in part because of personal bias, in part because of disagreements over methodology, but primarily because the underlying social process—the explanation—of the program’s impact would remain a mysterious black box. Agreement among the scientists will require a viable theory of ethnic relations, rather than a simple set of isolated data.

Let us elaborate on these issues.

The question of what treatment should be evaluated is complicated by the fact that desegregation is a moral or legal issue as much as it is a scientific one. For many policy-makers, school desegregation is a moral good in and of itself. For others, it is a constitutional requirement and the constitution does not guarantee that legally necessary means inevitably lead to benefits in the eyes of the society. We do think that most advocates of desegregation would argue that desegregation is beneficial, or perhaps more precisely that segregation is harmful. But what benefits do they have in mind? It is well known that the Supreme Court in Brown v. Board of Education argued that segregation in schools was wrong because it harmed the mental and emotional development of minority students. In reviewing the court’s decision one might conclude that the benefits suggested by social science testimony are less the reason for the decision than a rationalization for it: the court may be said to have made a serious effort to base its decision on historical evidence, falling back on a social science argument only when it was unable to do so. It is also clear that the court was as much concerned with the impact of its decision on the nation as a whole as it was with the impact on individual school children.

Thus it becomes clear that the problem goes beyond the bounds of the scientific method. Science cannot tell us whether school desegregation is more moral than segregation; it also could not have told the court in 1954 whether the Brown decision would indeed change the political climate of the United States. Social science played a role in the 1954 decision; but school desegregation was not adopted on the basis of any evaluation of its effects.

For this reason, a number of policy-makers would prefer that future research on race relations pay relatively little attention to the question of whether school desegregation is good or bad and focus instead on what can be done to accelerate the process of school desegregation and to improve the educational quality and human relations of desegregated schools.

In this report we will propose a group of research projects, some designed to evaluate the impact of desegregation and to study what characteristics of this process are helpful and harmful, others to evaluate the impact of various strategies to improve the quality of desegregated schools. Whichever treatment we choose to evaluate, we will use a very wide range of criteria to assess their effectiveness, realizing that different members of the research and policy-making community will hold different values about which of these outcomes are most important. We hope that such a program will provide nearly all the members of the political community with the information they themselves deem to be most relevant in making their personal decisions about federal, state or local policy on ethnic relations in the public schools.

We also believe that these evaluation reports should be embedded in a larger set of studies, ranging from descriptive reports on the state of desegregation and the character of desegregated schools to fundamental research, illuminating some theoretical issues about both education and race relations. The simplest way to
understand our reasons for this is to consider the difficulties that have arisen to date in arriving at a national consensus about the effects of desegregation on achievement test scores. First, most analysis has attempted to measure a single “effect of desegregation,” as if it applied to all minority students or all majority students, in all schools. This is on its face an unlikely hypothesis: we would expect males to be affected differently from females, southerners differently from northerners, and we would expect certain aspects of school quality to drastically alter the impact of desegregation itself.

The other major problem is that desegregation is viewed as a mysterious process. Desegregation has no obvious (or plausible) direct effects on learning—it’s effects (if any) are indirect effects on the process of schooling. Studies which simply contrast achievement test scores before and after desegregation making no attempt to measure quality of race relations, nature of school program, teacher characteristics, etc., leave us with no plausible hypothesis as to why desegregation might have the effect found, or why it should have no effect. Also, the critic has no way to reconcile contradicting results from different studies. On a policy question subject to such bitter disagreement arising from the ideological prejudices of supposedly objective social scientists, the simple finding that achievement is higher (or not higher) is not sufficient to stand up for long in the debate.

Finally, policy-makers cannot make wise decisions based only on these analyses of achievement test scores or any other effect on students. They need to know a number of objectively measured facts: how widespread are the support and opposition to school desegregation among different sectors of the society? How strong is that support and opposition and what are the reasons why people support and oppose it? What is the typical desegregated school like? What has been the typical community’s response to desegregation? Has desegregation led to increased out-migration of whites to suburbs, or to increased alienation of minorities from the schools? Most policy-makers have depended on journalists for this basic information, and the major difficulty there is the well-known “man bites dog” problem: the media must necessarily report the unusual more than they do the ordinary. For these reasons, the major focus of our research is on measuring as skillfully as possible the internal dynamics of segregated and desegregated schools as a basis for describing what schools are like and for developing a theory of why they are as they are. We hope to explain how the process of education differs, both as between segregated and desegregated schools and as among desegregated schools with different types of policies.

WHAT ARE THE CRITERIA OF SUCCESSFUL DESEGREGATION?

Any evaluation of a school must first state goals for measuring the school’s success. The school performs a number of functions. The long-term learning-derived goals are the ones most commonly referred to in evaluations. Learning is frequently seen as instrumental—a means to increase people’s economic potential. In addition, we assume that learning increases one’s chances for life-satisfaction in a diffuse set of ways. The educated person can cope with a complex and changing social and political order; he can read the daily newspaper with the training necessary to avoid being bewildered and disoriented by new and unpredictable occurrences.

Learning also leads to cultural satisfactions. We assume that better educated persons, whether appreciating classical music or enjoying the newspaper, can derive
more satisfaction from their culture. We assume that the educated person has the
to develop the intellectual skills—sometimes called wisdom, sometimes
intelligence—to cope with all sorts of personal issues that arise in life. Finally,
learning is also valued in and of itself. If there were no data to indicate that better
educated people were more successful in life, American society would still value
education. Thus, noninstrumental learning can be listed as a goal.

We can also view schooling as producing long-term benefits for the society as a
whole as well as the individual. It is of course true that the entire society benefits
as the economic potential of any one member increases. Similarly the noneconomic
skills which learning provides benefit the society by making better citizens—people
who can vote more intelligently or make wise decisions in their relationships with
others. Of course, the debate over desegregation is in part concerned with the role
of the school in helping people to learn to relate to other ethnic groups.

Beyond these learning goals we can look at long-term socialization functions.
The school is the major institution in which the student is placed in relationships
with the larger society. In the school, the child learns to relate to a wider circle of
peers, as opposed to the family and very small play group which he meets at home
and in his neighborhood. The school teaches the student to work for someone who
has societally assigned authority. The school teaches a variety of ways to play. As
the child learns to relate to others, to work, and to play, his interactions with this
larger world help to establish his self-concept and his view of the world and his
proper place in it.

This view of the school is at variance with the view implicit in existing evalua-
tions of desegregation which have focused on achievement test scores. Let us exa-
mine the assumption which underlies that choice, namely, that the only function of
the school is to develop the cognitive achievement of the student. By cognitive
achievement we mean the development of the mental machinery necessary to learn
the school curriculum; presumably the student carries this with him throughout the
remainder of his life.

In *Inequality*, Christopher Jencks and his coauthors seem to accept the idea that
the achievement test is the main outcome of the school, although they question
whether achievement test performance (and thus the entire effect of schooling) is
sufficiently related to adult occupational performance to merit the society’s intense
concern with education as a tool to eliminate inequality of opportunity. But *Inequal-
ity* can be viewed more narrowly as less an attack upon the schools as an attack upon
the achievement test. If schools make a difference—in persuading students to attend
college, in developing occupational skills independent of cognitive ability, in develop-
ing attitudes and work habits that are economically productive—these school
effects will certainly be missed by any evaluation based only on achievement test
scores.

It is also important to observe that economic productivity is itself a narrowly
defined goal of the school system. If our concern with school race relations is in part
dependent upon the constitutional right to the pursuit of happiness, we must recog-
nize that there is some truth to the cliche that money will not buy it. The proponents
of achievement testing argue that cognitive ability is a prerequisite to the exercise
of good citizenship, the consumption of culture, and for making everyday decisions
about living. However, the President’s Scientific Advisory Committee’s Panel on
Youth listed seven objectives of education which go beyond the economic view of
personal success and beyond any conception of cognitive ability as the sole factor
leading to success. The panel proposed that the school provide seven things to its
students:
1. Cognitive and noncognitive skills necessary for economic independence and for occupational opportunities.
2. Capability of effective management of one’s own affairs.
3. Capabilities as a consumer, not only of goods, but more significantly, of the cultural riches of civilization.
4. Capabilities for engaging in intense concentrated involvement in an activity.
5. Experience with persons different from himself, not only in social class and in subculture, but also in age.
6. Experience in having others dependent on one’s actions.
7. Interdependent activities directed toward collective goals.

This set of goals is presented not because it is preferable to other sets, but to indicate the wide variety of values which may be brought to an analysis of education. This set of goals also points out the importance of noncognitive factors. Certainly the “capability of effective management of one’s own affairs” implies a quality of mental health as well as academic ability. We can illuminate this point by considering differences between research on the school and research on the family. In studying families, one research hypothesis is that the malfunctioning family has unfortunate effects on children, not in terms of cognitive ability but rather in terms of the emotional factors which cause the children of disturbed homes to be more delinquent, less able to develop stable personal relationships in adulthood, etc. More recently, critics of the schools such as John Holt and Jonathan Kozol state that inadequate schools, like inadequate families, are emotionally crippling institutions. While this may be overstating the case, we do think that there is no reason to reject a priori the idea that schools have no lasting emotional impact upon students.

Thus far we have discussed only the long-term impact of the school on the students. However, one may choose to evaluate the school in terms of its immediate consequences. Certainly it seems likely that many parents take this attitude. They like or dislike the school their child attends according to the experience he is having in school this year. They are not solely concerned with the effects of the school on his adult life.

It is probably easier to obtain agreement about desirable short-run goals for the school than for long-term goals. While the readers of this report, like the public in general, might disagree about how important each goal is, we believe that they would agree that a good school should have friendly relationships between students of different groups, a sense of mutual liking and respect between teacher and student, and students who enjoy school and are motivated to learn. We do not know whether this sort of school has lasting favorable results on its students, but for many readers this question is less important.

Another reason for evaluating schools on the basis of short-term criteria is that it enables us to use perceptions of teachers (and more importantly, students who are the clients of the school) about school quality. Given the imperfections of science, it makes good sense to use client satisfaction as a criterion.

The scientific method cannot tell us what values we should hold. It can only tell us that the various characteristics of the school are causally related to each other in certain ways. It remains for the society to decide what sort of school it wants after reading the scientific evidence. For these reasons we believe it very important that part of our research be an effort to determine what American citizens want their schools to be like and what citizens consider to be good solutions to ethnic conflict. Without such a survey we run the risk of developing elitest solutions to problems, producing the schools that “we” think are good for “them.”

There is much disagreement about what constitutes good education. Part of the difficulty here may be that the debate on, for example, assimilation versus pluralism
has taken place in the almost total absence of research on the issues. It seems likely that many seemingly bitter disagreements would be moderated by the experience of developing objective and measurable criteria of successful race relations. This is not to say that the disagreements would be resolved; they are disagreements over fundamental personal values. One writer places more emphasis upon minority goals, another on the needs of the majority group; one stresses economic productivity for minorities, another political power; one values harmony, another the social value of conflict. These disagreements will not be resolved by this research, but they will be informed by the relevant facts.

In summary, this research project is designed to evaluate the school by four different criteria: the apparent quality of the school, including student and teacher satisfaction; the impact of the school on student cognitive and emotional growth; its impact on racial attitudes and behavior; and its impact on student success (both economic and interpersonal) in later life.

SOME MAJOR ISSUES IN RESEARCH MANAGEMENT AND RESEARCH TECHNOLOGY

The design of this research program is guided by six principles, which are our major assumptions about the nature of data collection, data analysis, and research management. It is ordinarily the researcher's function to determine what design is best to answer a particular question within the limits of the budget for the research. This research design is unusual in two regards: first, it is not clear which of several researchable questions is most important to policy-makers; second, there is no set budget for the project. Thus, in order to avoid trespassing on the decision domain of the policy-maker, we must offer a design with numerous options, enabling the policy-maker to adjust the research priorities to agree with what he considers most important. For these reasons, the last chapter of this report develops a management plan which indicates how the overall research could be modified in order to adjust it to budget limits and differences in policy emphasis.

1. We propose a program of multiple research projects in order to avoid certain irresolvable dilemmas of social research. Every research design must deal with some fundamentally irresolvable problems, for the simple reason that any finite research budget requires a less than perfect research design, and the researcher must choose where to make his sacrifices. In this design there are three critical dilemmas:

   The first concerns how to trade off between sample size and richness of data. A large sample size is useful for several reasons: it permits sound statistical tests of the generalizability of the results, it permits analysis of deviate and unusual situations, and it permits more elaborate statistical procedures for controlling extraneous variables. At the same time, the more cases we study, the smaller the amount of data we can collect from each case, and a rich data base is valuable, again for several reasons. It permits exploring the unexpected finding by drawing on related data which might not be available in a less complete data collection effort. It permits careful verification of the quality of the data in any one area. It permits fitting any one finding into a broad general theory based on data in a number of related topics.

   We have chosen to avoid being trapped on the horns of this dilemma by dividing the study into two phases: during phase 1 we propose to collect data in 500 elementary schools and in the junior high schools and high schools that their graduates attend. While this is a smaller sample size than that used in Equality of Educational Opportunity (the Coleman Report), this sample is large enough to permit detailed
analysis. The Coleman sample was large because of the necessity to develop careful estimates for a number of ethnic groups. (Limiting this study to deal only with blacks, Mexican-Americans, Puerto Ricans, and Anglo-Americans makes the smaller sample size acceptable.) During phase 2 of the study, small subsamples—usually around 50 schools each—will be selected from the phase 1 sample to permit much more intensive data collection. When the analysts of these data find themselves limited by the smaller sample sizes, they can return to the phase 1 data for additional analysis.

The second dilemma involves the conflict between validity and reliability. Validity refers to the degree to which a measurement actually measures what we intend it to; reliability refers to the degree to which the measurement avoids random error. Generally speaking, survey results are highly reliable but less valid; experimental and case-study results are more valid but less reliable. Thus we propose that both methodologies be used.

The third dilemma involves the conflict between the need for quality in the research versus the limits of the budget and the policy-maker’s need for early reliable results. We have attempted to avoid this dilemma by splitting the study into phases, providing for some results early in the program and offering the policy-maker alternatives in terms of the number of research projects to be funded.

2. The research program should be conducted by a number of independent research teams working collaboratively. This recommendation is made because we believe that previous projects which have provided data of good quality have generally not been sufficiently analyzed. Put another way, we believe that the ratio of funds expended for the purchase of talented analysts is too low relative to the amount of funds spent to obtain good-quality data. For example, in the original funding of Equality of Educational Opportunity, a vast amount of data was collected but the Office of Education provided only for a few months’ analysis by two senior researchers and a pair of graduate students. When the Harvard group produced On Equality of Educational Opportunity, they invested perhaps 20 times as many hours in analysis. Even this was inadequate to deal with many of the questions which the data address. Now, ten years later, the data are obsolete with many analyses never done. No single research organization has either enough staff or enough talent to analyze adequately all the data that would be gathered in this research program. Hence we propose that a number of separate contracts and grants be let for analysis.

Awarding separate contracts for analysis by different research groups is also necessary in order to take advantage of the different ideological biases and research skills which exist. There are important disagreements about statistical procedures which cannot be settled except with experience; therefore, different groups using different methodologies must perform competitive and complementary analyses so that the policy-makers and social scientists alike can synthesize their findings into viable, practical, and rational options. Minority-owned firms possess certain methodological strengths for dealing with some aspects of the data; however, many of these are too small and lack the organizational resources to undertake other parts of the analysis. It is also important that the research program include researchers of differing ideological biases. It is characteristic of research in desegregation that many of the best analysts bring very strong ideological feelings to the data. A pluralistic approach will permit these conflicting ideologies to offset each other to some degree.

A final reason for proposing a multiple research team approach is that many of the most talented social scientists are located in universities that are either unwilling or unable to undertake large-scale data collection efforts. We have attempted to design this research program so as not to prevent their participation.
3. Modern computer technology will permit widespread data sharing. The large
data-collection effort represents a major capital investment in the social sciences
analogous to the capital investments that were made in major laboratories in nu-
clear physics. These laboratories were built in anticipation that they would be
utilized by the national scientific community. In the ten years since Equality of
Educational Opportunity, advances in social science computer technology, particu-
larly the development of interactive facilities and the diffusion of general social
science packages such as DATATEXT and SPSS, make it possible for these data to
be stored in a data bank, permitting secondary analysis by virtually every social
scientist in the United States very soon after the data have been collected. This is
one important way in which we can make a massive data-collection effort cost-
effective. In addition, since we are working with longitudinal data, it is possible to
modify and expand the data base continuously for the duration of the project. For
example, provision can be made to return to a set of schools to gather additional
data, either to test a new hypothesis, or improve on some particular measurement.

In addition to the widespread dissemination of the new data to be gathered, we
propose that existing large data files be analyzed further. (For example, we propose
to utilize the data from Project Talent for one of the studies.) We also propose to
gather additional data to supplement those stored in existing data banks. (For
example, we propose that additional data be added to the existing files on college
students.)

4. Proper research management requires a compromise between existing contract
research procedures and existing procedures to fund unsolicited research proposals.
There are serious weaknesses in the normal procedure used to fund contract re-
search, which we believe has limited the return on investment in this area. At the
same time, the problems of obtaining policy-valuable research from unsolicited
research proposals are even worse. Basically, the problems with contract research
are that contracts are too inflexible and the time provided for the preparation of the
proposals too short to permit many talented researchers to become involved. The
best university researchers usually are not interested in contract research; indeed,
one of the best university-based institutes (The Survey Research Center, University
of Michigan) rarely responds to proposed research contracts. Their lack of interest
stems from the instability of this source of funding, the overly strict controls exer-
cised by the government, and the inflexibility of performance schedules, which
prevents them from dovetailing a contract into the professor’s or the institute’s
long-term research plans. Consequently, contract research is done almost exclusively
by private institutes, many of which do not have highly talented staff. Virtually
no academic researcher who could obtain tenure at a reputable university would
accept comparable employment with a contract research firm, because he would not
wish to sacrifice his own research agenda in favor of a client’s.

At the same time, employment of academic researchers through the unsolicited
proposal market has too frequently resulted in research which is irrelevant to
national policy agenda, narrowly disciplinary, and guided by the idiosyncratic inter-
ests of the researcher precisely because the researcher has retained his freedom to
set research priorities. Moreover, the research is frequently noncumulative.

The result of the present research funding system is that it is not a system; it is
a set of poorly interrelated independent projects, many done in too small a scale,
with too much original data collection and too little analysis, too little synthesis of
results, and poor articulation of research results in relation to policy issues.¹

¹ This problem is well known in education, but it plagues other areas of policy as well. For example,
the Social Science Information Exchange has catalogued 1136 research projects now in progress in
health-care delivery-system research and development and health economics.
We have attempted to deal with some of these problems in the design of this research program.

5. *The general approach of this study places a heavy emphasis upon quasi-experimental and experimental methods.* It is our view that the experimental method is far superior to its alternatives—sufficiently superior to warrant careful investigation of its potential in all aspects of the research. However, we realize that it will be impossible to obtain a randomly assigned desegregation plan, for example, in any random set of cities. There are also other portions of the study which cannot be addressed by experimental methodology. In these cases we have paid attention to the possibility of utilizing what are sometimes called quasi-experimental methods. Our belief is that government funding agencies have generally been too quick to assume that experimental methods cannot be used for political or social reasons; in Sec. 12 (Vol. II) we discuss the possibility of modifying this research design (and in our view considerably improving it) by embarking on an experimental program.

6. *Issues in the methodology of data collection and measurement are more critical to the success of the project than are issues in data analysis.* The social science literature is rich with papers debating the merits of alternative methods of data analysis. Partly because that literature is so rich, we can generally avoid discussing those issues herein. Our other reason for a lack of concern with this topic is that data can be reanalyzed with other methods, providing the initial design is a sound one.

However, once the data are collected, nothing can be done to correct for errors of measurement. For this reason we have been greatly concerned with questions of how to collect high-quality data.

There are basically six approaches to data collection: respondent surveys, informant surveys, systematic observations, case-study observations, laboratory observations and collection of documents. Each has its own strengths and weaknesses, and we recommend that all five methods be used at various points in the study:

*Respondent surveys* are the traditional technique of modern social science; they provide systematic data at low cost. Their weaknesses lie in the inability (and unwillingness) of respondents to answer some questions, and the difficulty of determining behavior on the basis of a verbal or written response.

*Informant surveys* are less common techniques which are very useful in studying social organizations such as the school. Each member of the school community—students, parents, teachers, administrators—observes the system from a different viewpoint and has a story to tell about the behavior of the other actors in the system. The problems of bias are reduced but not eliminated, since each informant to some degree sees what he wishes to see.

*Systematic observations* are made by a member of the research team. Problems of bias can be minimized, and behavior which is difficult for the teacher or student to describe can be recorded. The technique is expensive and limited to recording regularly occurring behavior.

*Case-study observations,* sometimes called the anthropological method, are unique in that they permit the data being recorded to be synthesized in the field and new types of data added as conclusions are drawn or the opportunity arises. The problems of bias are severe, but bias can be partly controlled with statistical analysis of the data.

*Laboratory methods,* used normally only in the social psychological laboratory, are a powerful technique; basically the method consists of systematically administering a powerful stimulus and recording the subject's behavior. The technique is versatile and limited only by the creativity of the researcher, moral issues involved in deceptive stimuli, and cost.
Documents are least expensive, and often highly reliable; but they usually do not exist, or else they are not uniform across an entire sample.

All six of these techniques are proposed in this research program, and at many points we propose that all the techniques be used to measure the same variable.

As much of the survey data as possible should be analyzed at the aggregate level of the classroom or the entire school. Whereas any one student may respond inaccurately to a series of questions, the aggregate response of an entire classroom will be much less sensitive to response error. This should enable us to measure many of the diffuse but important aspects of school climate and the tone of interpersonal relations in order to flesh out the process variables that explain how an input factor such as student social status, or school financial expenditures, affects an output such as student happiness. While researchers have always known that these factors are more important than such "hard" indicators as the number of library books per pupil, they have avoided using them because of the problems of data reliability. It is our view that contemporary research methodology permits valid measurements of these variables with acceptable levels of error.

CONTRASTING THIS RESEARCH PROGRAM TO EQUALITY OF EDUCATIONAL OPPORTUNITY

Any research project dealing with ethnicity and education must admit an enormous intellectual debt to Equality of Educational Opportunity (the Coleman Report). The basic methodology of this and all other studies in education has been heavily influenced by that work. At the same time, the wisdom of hindsight and the advancement of research methodology permit us to go well beyond the Coleman Report in a number of ways:

Perhaps the most obvious point is that this study is longitudinal rather than a survey based on data on a single point in time. As Section 3 points out, many but not all of the problems of the Coleman study are relieved by a longitudinal design; some remain in only slightly less serious form in a longitudinal study. For this reason we have concentrated on incorporating experimental and quasi-experimental methods where possible.

There are other equally important differences between this research program and the Coleman Report. One of these is the limitation of that report to cognitive outcomes. It is important to observe that the use of cognitive test scores is in part nothing more than a historical accident. The measurement of intellectual ability comes from a tradition now one hundred years old. The achievement tests presently used represent the culmination of decades of meticulous research, amply financed by local school districts to develop precise measuring devices. Partly, schools do not measure noncognitive skills and attitudes simply because the research tradition is much younger in these areas. The first random-sample survey of a population was done in the 1920s; the first measurement of attitudes such as alienation was made in the 1950s. Nevertheless, some of the most valuable work done by Coleman dealt with the measure of control of environment, which is analyzed only briefly but has precipitated a considerable interest in the way in which the school environment can affect the concept of self. In this research we propose several noncognitive measures that can be put on an equal footing with achievement testing.

Also, considerable effort will be placed on measuring so-called soft aspects of school social climate, racial interaction and the overall mood of the school. In the Coleman Report the emphasis was on measuring the inequity of financial resources available to schools occupied by different ethnic groups. One might say that the
emphasis of this research program is on looking at inequities in the allocation of the 
affective resources of the society to schools.

This means we are proposing that the input-output model of schools be dropped 
in favor of an input-process-output model, which concentrates on understanding 
how the day-to-day operation of schools affects how students feel about schools, how 
they perform at schoolwork, and how they grow emotionally.

In part because of the differences stated above, and in part because of methodo-
logical differences, we anticipate that this research project will lead to a revision of 
the conventional wisdom that "schools do not make a difference." We say this in part 
because we expect schools to have a larger impact in certain noncognitive areas 
(especially race relations) than they do on achievement test performance; we also 
expect that the social climate of the school will have strong effects on achievement 
test performance. We are convinced that the general interpretation of the Coleman 
data that schools have effects of only trivial magnitude on their students is based 
on a misreading of the analysis. Coleman has criticized this aspect of his study 
strongly in several recent papers and has proposed new measures of school effects 
which he argues are less sensitive to his interpretation (Coleman 1972a, 1972b, 
1973).
3. RATIONALE FOR A LONGITUDINAL STUDY OF SCHOOL DESEGREGATION

It has become commonplace to declare the superiority of a longitudinal design over a cross-sectional design for assessing the causes or effects of a given social behavior. Is this based upon sound scientific experience or upon methodological ideology? Perhaps we would not raise such a question were it not for some recent methodological debates among behavioral researchers. For example, the Coleman study has been criticized for using a cross-sectional design to infer cause-and-effect relationships between family background or school resources and achievement outcomes. On the other hand, the National Heart and Lung Institute has pretty much abandoned its heavy investment in long-term, longitudinal assessments of heart disease risk factors in favor of more experimental studies with some control exercised over such factors. Are we advocating a methodology already discarded by more experienced behavioral sciences?

This section will examine the methodological efficacy of longitudinal designs as compared to cross-sectional designs. In addition, we will give substance to our analysis by taking a brief look at a number of recent or on-going longitudinal studies in education. As such we will provide the conceptual rationale for a longitudinal study as well as a specification of whatever techniques or strategies are necessary for a successful one.

THE CONCEPTUAL PROBLEM

It might be helpful to start with a simple problem somewhat outside the scope of our study to illustrate the fundamental difference between a longitudinal design and a cross-sectional design for assessing cause-and-effect relationships.

A Simple Hypothetical Example

Suppose we have a simple model that purports to explain why some college graduates plan to go into the business world after college while some pursue advanced professional or graduate study. The model postulates three factors that explain most of the variability in career choice, all of which occur during the college experience: (1) grade point average in regular academic subjects; (2) recommendations of faculty members; and (3) proportion or number of college friends going into a business career.

A cross-sectional design to test this model would draw a sample of college graduates, near the end of their senior year for example, and would administer an interview or questionnaire to the sample to determine immediate plans as well as the three predictor factors. (We intentionally sidestep the issue here of the best way to go about measuring these four variables.) There are two possible outcomes at the extremes, with quite different implications about the efficacy of cross-sectional designs. The first outcome is that the investigator finds no significant relationship between his three predictors and career plans. It is probably quite safe to make a negative cause-and-effect statement about the sample as a whole—that there is no cause-and-effect relationship as posited. But if there was, then at least some significant covariation should be observed. Of course, there could be some kind of "interac-
tion” whereby for one subgroup the predictors had positive relationships with plans, while for another subgroup they were negative, so that the relationship for the whole sample becomes zero. But this complex situation is generally discovered only through data analysis, and neither cross-sectional nor longitudinal designs (or any other for that matter) can lay unique claim to aiding in its discovery.

The second outcome is that all (or some) factors have significant relationships as hypothesized. Can we now infer a cause-and-effect relationship—that the factors caused the career plans? At the very least we know there is a relationship between the variables; the problem is to go beyond that to a cause-and-effect relationship. There are two main obstacles to cause-and-effect inference, given this kind of finding. First, we must establish that the three factors occurred before (or at least concomitant with) the career decision; we will call this the time order problem. Second, we must rule out other factors (e.g., IQ and father’s occupation) that could cause all three predictor factors as well as career choice; this is the problem of spuriousness.

Longitudinal designs permit us to solve the time order problem in two ways. First, by definition A can be a cause of B only if it occurs prior to B. A longitudinal design permits us to measure A—in this case, recommendations of faculty at one point—and determine whether B—the decision to enter business—occurred afterward. We normally do this by measuring the outcome variable prior to the occurrence of the predictors. For example, in a longitudinal design for our hypothetical problem the key feature would be an assessment of college plans at the beginning of the freshman year prior to the occurrence of any grades, faculty contact, or friendship choices. The question now becomes to what extent do the predictors measured in the senior year follow-up explain final plans controlling for initial plans. (There are several ways in which the controlling is done, but they are irrelevant to the issue at hand.) That is, we can more reasonably infer a cause-and-effect relationship if the relationships between the predictors and senior-year plans remain after we have taken out the effects of freshman-year career plans. If the relationships vanish, then our conclusion about cause-and-effect is unwarranted.

But the initial assessment of college plans has even more fundamental significance: we can use the change in college plans, if any, as the main criterion of whether there is anything to explain. The essence of a cause-and-effect relationship is that when a causal factor is applied, a change occurs which we infer as an effect due to the causal factor. In a cross-sectional study there is no way to measure change, so that one has to infer that a change has occurred for those who have more of some property or are higher on a given scale. It is quite possible that many college students have already decided to pursue a business career when they enter college, and their grades, contact with faculty, and friendship choices are in turn caused by this prior career decision. Thus the correlations for the senior year assessment reflect a cause-and-effect relationship, but in a direction opposite to that postulated. Without an assessment of initial conditions prior to the onset of treatment (e.g., the occurrence of college experiences), the proper cause-and-effect order cannot be untangled.

The second problem of spuriousness is not specifically addressed by a longitudinal design, although it may help. The only reasonably certain way to eliminate other factors that might be producing a spurious relationship is with a true experimental design in which one can control the treatment and randomly assign subjects to treatment and control conditions. Short of this, the only solution is to measure as many factors as possible that might reasonably be expected to contribute to the outcome variable. In this context a longitudinal design offers considerable advantage for interpreting posttreatment correlations and for ruling out other factors. In our hypothetical example a number of factors could be measured in the freshman
year that could help to specify and refine the causal model. For example, it would be possible to measure father's occupation, general scholastic ability, and other variables and generate a linear model to predict career plans. If we believe that career plans develop mostly during college as a result of college experiences, then variables measured at the beginning of college should not predict senior-year plans (even though they might be cross-sectionally related to freshman-year career plans).

To summarize, our simple example of a causal model for career choice reveals three ways in which a longitudinal design can be more effective than a cross-sectional design for making cause-and-effect inferences:

1. It enables a determination of time order, given that a correlation exists between a criterion (outcome) measure and some predictor factor. That is, if the predictor causes the criterion, and the predictor variable occurs between the first and final measurement of the criterion, then the correlation between the predictor and the first criterion measurement should be low compared to the correlation between the predictor and the final criterion measurement.

2. It enables an estimate of true change, which allows a gross assessment of treatment effects for the sample as a whole. Thus, if career choice did not change for anyone between entering and leaving college, we would reject our hypothetical model no matter what correlations existed among senior-year variables.

3. It enables tests of more complex models, including the use of initial condition as a control variable when analyzing the final outcome measurement. In addition, other predictor variables can be measured during the initial assessment period that might be difficult to measure in the final assessment period, thereby offering stronger tests for spurious relationships.

In other words, a cross-sectional design is adequate for assessing the existence of covariation among variables and perhaps for asserting the lack of a cause-and-effect relationship; but a longitudinal design is necessary to assert the existence of an effect and enables a stronger assertion about the existence of an effect independent of relevant initial conditions.

This is not to say that a longitudinal design has no methodological problems. It must be stressed that longitudinal assessment is only one component of a rigorous experimental design; the issue of control and random assignment remain just as crucial for rigorous cause-and-effect inferences. We will take up some of the problems of longitudinal designs in Sec. 7.

**Examples from the Desegregation Study**

The conceptual advantages of a longitudinal study can be illustrated further by drawing upon examples of proposed student outcome measures for the national desegregation study. For example, we can consider models in which race relations and academic achievement are the outcome measures of interest.

**Testing Race Relation Models.** Suppose one of our operational outcome criteria was degree of informal interracial contact, and we ask students to estimate how many days in a typical week they have lunch with members of a different race. Assume we design a cross-sectional study and discover that, for a given grade level in desegregated schools, the average is 45 percent of the time. Since measures such as this are not likely to be standardized or comparable to other data, this number has little absolute meaning by itself. Moreover, this is one variable that makes little sense to measure at segregated schools. So, if the independent variable is a desegregation plan condition, then we might compare neighborhood desegregated schools with court-ordered desegregated schools with crosstown busing. If the averages turn out to be 50 and 40 percent, respectively, can we safely conclude that the plan
variable is responsible for the difference? The fundamental problem is that these two averages are based on two different populations who may differ as to their initial predisposition for contact. Most cross-sectional analysts would, of course, control for other measures that are felt to be related to contact predisposition (e.g., social class and prior experience with members of other ethnic groups). But the fact still remains that different persons are being compared, and the likelihood is that the control variables account for only a small proportion of the variance of initial predisposition for contact. Thus any relationship that remains after controls are applied may still be due to predisposition.

Consider the situation for a longitudinal design, where one has measured contact just after the student started attending a desegregated school and then one or two years later. Let us say that after two years the overall average for a given cohort or panel has changed from 45 to 55 percent; for neighborhood desegregated schools from 50 to 80 percent; and for court-ordered desegregated schools from 40 to 30 percent. Now the causal inferences are much stronger, since we have a base-line standard for the same students against which we can compare the results after two years of desegregation. First, we can make a general statement about the overall effect of desegregation, quite apparent from differences among programs. Second, while it still may be true that the changes in the two types of schools can be attributed to differences among the students, at least we have eliminated the critical issue of initial condition. Whatever one might conclude about the cause of the change, it is unlikely to be caused by differences in initial predisposition to contact.

Testing Achievement Models. The problem with cross-sectional designs for testing the effects of desegregation on achievement is illustrated by the Coleman study. Desegregated black students scored somewhat higher on achievement tests than segregated black students, but they also had higher social class levels. When social class was controlled, the difference diminished but still remained significant. But social class factors may explain only 40 to 50 percent of variation in achievement scores, so that they are not a satisfactory replacement for initial achievement levels (prior to desegregation experience).

With a longitudinal design it is possible to assess initial achievement levels and then assess achievement gains over the period of study. A change of average scores from the 35th to 50th percentile for a desegregated group compared with a constant score of 35th percentile for a segregated group clearly has more basis for declaring a cause-and-effect relationship than a cross-sectional comparison of different groups. The all-critical issue of initial differences in achievement scores is settled in this case, since both groups started out at the 35th percentile prior to the desegregation experience.

Cohorts Versus Panels

A longitudinal panel study is one that follows the same group of students over subsequent years; a longitudinal cohort study is one that follows a specific class as it advances through different grade levels. The studies are identical only if there is no mobility into or out of that cohort.

Given a certain amount of mobility, a cohort study answers questions about changes in the school as a whole, but not necessarily about changes in individuals (except for the stable subgroups). Actually, a cohort study confounds the results of a panel study with a cross-sectional study. The best way to study changes in the

1 If it could be established that the control variables explain all or most of the variance in predisposition (e.g., $R^2 = 0.90$ or over), then the controls would be a fair substitution.
school as a unit of analysis is to assess the same grade level in subsequent follow-up assessments. That is, we might look at the first and sixth grades in an elementary school at each of several successive years. While we could not answer questions about changes in individuals, we could answer questions about changes in the school as a whole. A change in a cohort reflects both individual changes (for the stable subgroups) and cross-sectional changes as new students with different characteristics enter the cohort. However, these new students are at a different grade level than the one in the initial assessment, so that we cannot really make a cross-sectional inference for the school district.

A panel study is necessary for cause-and-effect statements about change in individual behavior, but since the stable panel is always part of a class cohort, it may be that the cohort design is the easiest to administer and therefore the most economical. During data analysis operations a cohort can always be divided into the stable panel, dropouts, and new students. Also, with the proper choice of grade levels we can also have a cross-sectional analysis of the same grade levels over time. More details will be given on this design issue in Sec. 7.

A final note might be in order about the utility of a cross-sectional design that assesses many grade levels at a single point in time and uses the different grade levels to make causal inferences about the cumulative effects of a school policy. The Coleman study used this strategy to some extent. One issue is whether or not each grade level is alike in all respects except for their length of exposure to the policy in question. But even if it is determined that the grade levels are alike, there is the more fundamental problem of whether the differences reflect natural changes in the students or the effects of the school policy. Thus, one must still compare students at one grade level in a school with the policy and the same grade level in a school without the policy. Now, however, we are back to the problem raised earlier that we do not know the initial conditions of the two groups being compared with respect to the outcome measure.

Methodological Problems in Longitudinal Designs

While a longitudinal design may have advantages over cross-sectional designs for certain types of inferences, it is not without its disadvantages and inadequacies. This subsection will try to spell out the major methodological problems and will set the stage for our review of existing studies.

Nonexperimental Design. A longitudinal design is not in itself sufficient for fairly rigorous cause-and-effect inferences. For example, we cannot infer that a one-year gain of 10 points in average achievement scores for students in desegregated schools is caused by desegregation, since students in almost any kind of school situation will show achievement gains over a one-year period. We must compare this with some kind of control group not experiencing desegregation to see if the 10-point gain is greater than that for segregated students. Or, if we are testing the effects of different desegregation plans, we must compare the gains of students across different programs. But this is not as easy as it sounds.

The main problem with finding a control group is that in order to make a definite cause-and-effect conclusion the control group must be like the treated group in all respects and must have the same experiences except for the treatment in question. In a true experimental design this is done by first selecting relatively homogeneous groups of persons with respect to factors known to affect the outcome criterion and then assigning persons randomly to treatment and control conditions (or to different treatment conditions). In the national desegregation study, however, this is not deemed feasible. The reason is not only that random assignment is unrealistic but
also that different treatment or control groups are likely to be in very different environments. Students attending a segregated (or one type of desegregated) school are experiencing different facilities, teachers, and peer influences than those attending a desegregated (or another type of desegregated) school.

The only reasonable way out of this dilemma is to use a quasi-experimental design where longitudinal measurement is combined with a matching procedure that selects schools similar in student and school characteristics except for the condition being tested. More is said about quasi-experimental designs in Sec. 12; it suffices here to say that a longitudinal design can be used to describe changes over time, but it cannot be used to infer cause-and-effect relationships without the use of adequately chosen control or treatment-comparison groups.

**Pretreatment Assessment.** Aside from the issue of control groups, a longitudinal assessment cannot adequately assess the existence or extent of change in outcomes unless the initial assessment occurs before or reasonably close to the onset of desegregation. That is, if students or other groups are assessed too long after they began experiencing school desegregation, then initial conditions are not being measured and important changes (those that occur during the early stages of desegregation) may be underestimated. In this case the longitudinal design would not gain anything and the analysis would be little different from a cross-sectional one.

Since a national study of desegregation must contend with schools in differing stages of desegregation, the only way to handle this problem is to focus on certain years and, for special longitudinal subsudies, to select those school districts which are planning to desegregate. For example, the use of grades K or 1, 6, and 9 during the initial or base-line assessment should result in many students who will move from a segregated neighborhood or segregated elementary or junior high school into a desegregated school in the subsequent year. In addition, the planned one-year longitudinal survey of schools should enable analysts to determine which schools are about to desegregate and what grade levels are to be desegregated. These schools would be prime targets for subsequent assessment waves in special subsudies.

**Attrition.** The problem of attrition is, without a doubt, the most serious practical problem encountered in longitudinal studies that follow individual persons. Attrition can happen in several ways in a school study. First, a certain number of students in the original panel will have moved out of the school or school district by the time follow-up data are collected. Second, schools or school districts that participated in the first year of a study may withdraw in subsequent years. Finally, there are a number of less serious conditions that lead to some loss, including absence, individual refusal, and administrative errors that make it impossible to link a follow-up record to the initial record.

Whether or not these conditions will seriously impair a study depends on a number of factors. The loss rate from relocation will be serious only if a study lasts more than two or three years. Moreover, the subsample of stable (nonmoving) students does not have to be a seriously biased sample. Results from the initial assessment can be used to check this; randomly selected subsamples of the movers can also be mailed special follow-up questionnaires to provide a further check. We might note here that special follow-up procedures to gather information on movers is not really useful except to provide information on a sample bias, since they are no longer experiencing the conditions of the school, in which they started. At any rate, the extent of bias may be serious only in those school districts which are experiencing rapid in-and-out migration as the result of the desegregation process. Just how extensive this will be is hard to estimate with available data.

The loss of entire school districts through heavy pupil attrition may be a less
serious problem than that introduced by district refusal to participate in the original study.

**Administration.** It is obvious that a longitudinal study is more costly than a cross-sectional one since it involves repeated assessments. But it also involves some administrative complexities quite apart from cost factors. The main issue has to do with the maintenance of name-and-address files and the problem of confidentiality. In order to link the initial and follow-up instruments, it is of course necessary to maintain a file with the student’s name, and if there are to be follow-ups for those leaving the school district (e.g., post high school), the file also must include names and addresses of parents or guardians. Not only does this entail extra data-collection forms and clerical operations but it also requires special procedures to protect the confidentiality of data on students. While more will be said later on the actual procedures proposed, we need to stress here that the critical importance of protecting personal privacy and confidentiality demands that considerable effort be devoted to this phase of the research.

**EXISTING LONGITUDINAL STUDIES IN EDUCATION**

To this point our discussion has focused on some of the conceptual issues in longitudinal studies that can be determined from general principles of research design. The purpose of this subsection is to describe some concrete current or recent longitudinal studies in schools. We can use the experience of these studies to improve our design strategies by adopting techniques that have been proven successful. We can also inquire to what extent, if any, our proposed study overlaps those already completed or in progress.

**Evaluation of the Emergency School Aid Act (ESAA)**

The ESAA evaluation (U.S. Office of Education 1973) is designed to study the effects of desegregation, compensatory education, and a combination of both on achievement outcomes and, for desegregating schools, race relations outcomes for programs receiving ESAA funds. The evaluation also seeks to identify particularly successful desegregation and compensatory programs and to discover determinants of success. The sponsoring agency is the U.S. Office of Education (Michael J. Wargo, Project Officer); System Development Corporation of Santa Monica is the contractor (John Coulson, Project Director).

The evaluation has two components. The Pilot Program evaluation focuses on compensatory programs in segregated schools and will study students longitudinally in grades 3, 4, 5, 10, 11, and 12 in elementary and high schools in 90 districts (one set each); 29 additional sets of schools will be drawn to serve as controls (schools not receiving ESAA funds). Each grade level is surveyed each year for three years, resulting in both longitudinal panel data and cross-sectional data for the same grade level. Approximately 21,600 students will comprise the treatment groups, while 3780 students will comprise the control groups.

The Basic Grant evaluation focuses on schools that are receiving funds for desegregation purposes but will also study, for comparative purposes, schools in the Pilot Program. The sample is random and consists of 60 students each from grades 3, 4, and 5 in 96 schools in 32 districts; half are controls and the other half are distributed among treatment combinations. The assessment will cover all three grades for two years, thereby producing longitudinal panel and cohort data and cross-sectional data.
The study only began in 1973, so there are no data to report on attrition rates in preliminary findings. Also, since there is limited information available on the project, we cannot describe any special procedures utilized for follow-up and confidentiality purposes. We can speculate, however, that given the relatively short-term nature of the project, the attrition rate will be fairly low and hence not a serious impairment.

While this study is presently the only national longitudinal study of desegregation, its scope and purpose are quite different from the national desegregation study we propose. First, it is more of an evaluation of a particular educational program than of desegregation or types of desegregation; it will not be representative of all desegregating schools in the nation. In this regard, it will not focus on the effect of desegregation plans in outcomes. Second, its duration (two years in the case of the Basic Grant evaluation) is shorter than that proposed for the national desegregation study. Finally, the study focuses primarily on achievement outcomes and to a lesser extent on race relations outcomes. While these are important outcomes, we feel that a national desegregation study must have a broader conception both of process variables (e.g., internal classroom dynamics) and outcome variables (e.g., personal effectiveness, racial contact, racial attitudes, and racial understanding).

It should be stressed, however, that the ESAA evaluation does have the basic elements for a quasi-experimental design: panels and cohorts of students studied over time in both treatment and control conditions. In this respect it is comparable to the quasi-experimental design we are proposing.

The National Longitudinal Study of the Class of 1972 (NL 572)

The basic purpose of the National Longitudinal Study of the High School Class of 1972 (Chandler 1974) is to document the educational and occupational choices and progress of a national random sample of graduating high school seniors and to determine the correlates and predictors of both initial choices and later progress. The study is sponsored by the National Center for Educational Statistics of the U.S. Office of Education; the base-line senior year study was conducted by ETS (Thomas Hilton, Project Director; Bruce Thompson, OE Project Officer). The first follow-up assessment is being conducted by Research Triangle Institute (Jay Davis, Project Director; Dr. Tabler, OE Project Officer).

The original design called for a random sample of 18 students drawn from each senior class of 1200 public and private schools from throughout the country. The 1044 schools that participated included 95 replacement schools; this means a response rate of nearly 80 percent of the original sample of schools (and thus about 80 percent of the original sample of students, although there were different response rates for different tests and questionnaires). The main reason for nonparticipation was timing rather than refusal; nearly 98 percent of the original sample of primary schools are participating in the first follow-up year.

Since the study is a developmental and descriptive one rather than a causal analysis of school policy effects, there is no need for a control group. Indeed, the only conceivable control group would be students who did not attend high school at all.

There is not great deal of information about the first follow-up year, but slightly more than 60 percent of the original sample of over 21,000 students have successfully returned follow-up mail questionnaires. The U.S. Census interviewer staff has been engaged to locate and interview the nonrespondents; USOE's goal is to obtain a 90 percent response rate based on the original sample of schools.

The tracking and confidentiality procedures included a School Record Information Form, which was separately administered for each student by school officials.
and included names and addresses of parents, as well as selected school information such as test scores, grade average, attendance, and so forth. There is also some valuable information concerning difficulties in sampling students within schools when using a senior student roster provided by the school; only one such roster in five was usable without further contact with the school. Regarding this and other administrative problems, USOE recommends several procedures for future studies of this kind:

1. Begin work in the fall in order to have data back before the end of the spring term.
2. Maintain good personal communication with officials of large districts.
3. Contact both target and backup samples at the same time to cut down delays due to refusals.
4. Do not underestimate the resources required for telephone contact with school officials.

While the purposes of the NLS are quite different from the national desegregation study, they do overlap to some extent on the issue of post-high school outcomes. It should be noted that their data base includes information about student ethnicity and school ethnic composition, and it could be used for some valuable studies of the patterns of college and occupational choice for ethnic groups as influenced by high school ethnic composition. On the other hand, there is little or no information on the desegregation history of each student, on race relations outcomes, or on desegregation plan characteristics.

Project Talent

The purposes of Project Talent (Flanagan 1971) are very similar to those of the NLS; namely, to document educational and occupational choices and their determinants by using a long-term longitudinal methodology. The study began with a baseline survey of students in grades 9 to 12 in 1960; the five-year follow-up has been completed and an eleven-year follow-up is under way. Sponsorship is currently from the National Institute of Education (Gary McDaniel, Project Officer); the contractor is the American Institute for Research (John Flanagan, Project Director).

It took four years to complete the first full follow-up study, which was conducted five years after each class finished high school. This methodology therefore provides some unique information on follow-up intervals of five to nine years. A base-line random sample of 404,000 students was drawn from several thousand high schools (93 percent cooperation rate) and completed questionnaires and ability test batteries. For the five-year follow-up about 33 percent returned mail questionnaires, ranging from 38 percent for the seniors to 27 percent for freshmen (in the 1960 baseline survey). Given this low response rate, a special random sample of 9817 nonrespondents was selected for intensive follow-up efforts by a nationwide staff of regional coordinators and interviewers. By means of telephone contacts for most of the interviews, a response rate of about 80 percent was attained, but this varied from 92 percent for juniors to 62 percent for freshmen. In other words, even after an intensive effort the nine-year follow-up (from grade 9 to five years after high school) still failed to obtain over one-third of the original respondents. The reasons for higher rates in the later grades may go beyond the time interval: those types of persons who may be the hardest to locate may drop out of school before grade 10 or 11. Thus, the later grades may represent a more accessible group of students. As to the seriousness of this nonresponse bias, it is hard to say; Project Talent’s main
report on the five-year follow-up (the only one reviewed here) did not include a comparison of base-line data among various respondent and nonrespondent groups. The Project Talent data are judged to be of some utility to the national desegregation study. They may enable an assessment of the effects of school racial composition on adult career patterns. But there are not sufficient data on school characteristics, nor are any criterion variables included beyond occupational and educational achievement.

Youth in Transition

The Youth in Transition project (Bachman 1971, 1972) was started in 1966 by the Institute for Social Research at the University of Michigan (Gerald Bachman, Project Director) with U.S. Office of Education support. The purpose of the study was to document various educational and occupational processes and their determinants as a panel of high school boys progresses through high school and beyond. Primary emphasis has been placed on career choice and dropping out of high school.

While its goals resemble those of Project Talent and the NLS, its methodology does not. The base-line random sample was relatively small; 2213 tenth-grade boys were selected from 87 representative public schools in the nation. For the original assessment in the fall of 1966, and for all follow-up assessments, field interviewers were used to contact the students and collect the data. Of those participating in the original study, approximately 85 percent were reinterviewed in the spring of 1968 (junior year), 81 percent in the spring of 1969 (senior year), and 73 percent during the summer of 1970. Those who moved were tracked, although no interview was attempted if a respondent was not within 50 miles of one of the national interviewing staff members. In addition, a determination of educational status in 1970 was possible for another 18 percent of the panel, so that the nonresponse rate for this critical variable is only 9 percent.

Some data were presented about the differences between respondents and nonrespondents at Time 4. There was a definite difference in dropout rates for the two groups, being about 10 percent for the respondents and about 33 percent for those nonrespondents who could be classified as to educational status. Moreover, the respondent group revealed about 50 percent with post-high school education, compared to only 19 percent for the classifiable nonrespondents. In other words, the 1970 respondent group was biased in favor of students finishing high school and entering college. On the other hand, once the sample is classified into dropout, high school graduate, and post-high school education there are no remaining important differences between respondents and nonrespondents. This is an extremely important finding, because it means that while the absolute number of responding dropouts is too low (or the number of responding college students is too high), they are representative of the full sample of dropouts. This means that a causal analysis of the determinants of dropping out will not be affected by nonresponse bias.

Information about race and race-related variables is more extensive than in any other longitudinal study we have reviewed. Data were collected about the respondent’s race and the racial composition of his school; in addition there were a number of racial-attitude questions. While the data are not as complete as proposed for the national desegregation study, and while the omission of girls from the study is a serious defect, nonetheless the Youth in Transition study offers substantial promise for special secondary analyses on race and desegregation issues.
Academic Growth Study

The purpose of the Academic Growth Study (Hilton 1971) was to document changes in academic ability and achievement as students progress through grades 5 to 11. The study was conducted by the Educational Testing Service (Thomas Hilton, Project Director) and sponsored by the U.S. Office of Education.

The base-line assessment began in 1961 with the entire grade 5, 7, 9, and 11 classes in 27 school districts. The schools were not a random sample but were selected to represent different sizes, regions, and socioeconomic levels. Each cohort was followed until the eleventh grade; the same set of tests (SCAT and STEP) were used for all four assessments.

Of the original fifth-grade sample approximately 46 percent were reassessed at grade 11; no attempts were made to reassess those who moved out of the school. Two schools dropped out of the project before its completion. Thus the attrition rate for the longest-term panel is 54 percent.

Although few data are presented to compare those who relocated with those who stayed in the panel, there are some very interesting data available (Hilton 1970) that allow us to compare three different strategies for assessing growth over time: cross-sectional, using different grade levels during the same year; cohorts, using a complete class as it moves over time (including students that move in and out of that grade level); and panels, using the subgroup of students that had complete data for all four assessments. The results appear in Table 3.1. We note that with the exception of grade 5, where the cross section and cohort are identical by definition, the panel figures are remarkably close to the cross section, even closer than the cohort data. For this characteristic, then, the panel with a 54 percent attrition rate is nonetheless representative of the entire cross-sectional sample. This means that students who relocated or dropped out of this sample were not so different on academic ability as to seriously bias the panel.

The only race-related variable included in the Growth Study is race of student. As such, while the study is valuable for tracing changes in achievement for different races, it would not be useful for analyzing the effects of desegregation on achievement or other outcomes.

Table 3.1

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4763</td>
<td>252</td>
<td>252</td>
<td>255</td>
</tr>
<tr>
<td>7</td>
<td>5579</td>
<td>266</td>
<td>264</td>
<td>267</td>
</tr>
<tr>
<td>9</td>
<td>6003</td>
<td>277</td>
<td>275</td>
<td>279</td>
</tr>
<tr>
<td>11</td>
<td>3707</td>
<td>283</td>
<td>284</td>
<td>286</td>
</tr>
</tbody>
</table>

*a N's are approximately the same as the 1961 cross section except for grade 11, where the cohort N is 5149.  
*b N is 2499.
STRATEGIES FOR A SUCCESSFUL LONGITUDINAL DESIGN

The studies we have reviewed here reveal such great variation in goals, scope, and methodology that it is difficult to summarize their implications for a longitudinal desegregation study. Nonetheless, we will attempt to draw upon these studies and the general principles discussed at the beginning of this section to present a brief summary of the issues that must be confronted for a successful longitudinal design in the national study. More detailed discussion of these issues will be found in the design sections of the specific studies proposed.

Control Groups

Since the national desegregation study proposes to examine both the overall effects of desegregation and the effects of different types of programs, there is a clear necessity for having control groups of students in nondesegregated schools for comparative purposes. Moreover, control groups must be selected so as to match desegregated schools in as many characteristics as possible except for the desegregation experience. If control groups are not used, then it will be difficult to make any cause-and-effect conclusions about the effects of desegregation or different types of desegregation.

Time and Interval of Assessments

The experience in many studies has been that considerable time must be set aside for obtaining cooperation from schools; assuring cooperation may be even more critical in a desegregation study. Therefore, if a study is to start at the beginning of a fiscal year, a base-line assessment may not be possible until the next spring.

One-year intervals seem to minimize the loss due to attrition, and durations of three to four years would not appear to result in too great a loss. There is very clear evidence that longer intervals and durations may lead to serious attrition problems. A four-year duration should result in a loss of no more than 20 to 40 percent of the original sample in most schools, and if annual assessments have been made, one should be able to have confidence in whatever trends have been established over the duration.

Cohorts, Panels, and Grade Levels

There is a certain amount of appeal in a study that has both cross-sectional and longitudinal data; the main reason is that hypotheses can be tested both ways, and greater confidence ensues if the outcomes are consistent. It may be appropriate in some cases, then, to select certain grade levels and follow cohorts over time (with sampling for secondary grade levels).

Tracking and Confidentiality

A longitudinal study requires linking data from repeated assessments for individual students; this in turn requires that student names be connected with questionnaire and test results. Systems must be designed whereby the data can be linked to a name through some type of name-number file system, but in a way that prevents both the school and the data base from connecting a particular name with a particular set of responses.
4. THEORIES OF SCHOOL PROCESSES

INTRODUCTION

This research will answer our two questions, "What are the effects of desegregation?" and "How can we make desegregation work better?" by embedding the answers in a theory of how schools affect students. In this sense, theory is the end result of the project. But the content of that theory, and the degree to which the data support it, depends on which data are collected. Our decisions about which data to collect depend on our ability to anticipate as many as possible of the theories which various researchers will want to test with the data.

To do this, we develop a very general model, or conceptual scheme, specifying not exactly how variables will be related to each other, but which variables will play important roles in various analyses. Within such a model, theorists can hopefully test sharply competing theories of what occurs in schools.

We develop in most detail those portions of the model that deal either with desegregation itself or with how policy-makers can intervene in the process to affect the quality of schools—especially the quality of desegregated schools. We do not develop separate theories for segregated schools. Many interventions that would improve desegregated schools would help segregated schools, and many problems common in segregated schools do not disappear when schools are desegregated.

The first part of this section deals with school desegregation as a community process, in many ways the most significant focus of our research. We would argue that the important effects of desegregation are not on schools and their students, but on communities and their citizens, and that the success or failure of desegregation is determined more by what the community does than by what happens in schools.

The second part of this section looks at the impact of desegregation on the schools. We present a global model of how schools work, discuss various hypotheses about the effects of segregation as opposed to the effects of the desegregation process, and consider in detail several possible points of intervention in the school and some intervention strategies.

SCHOOL DESEGREGATION AND THE COMMUNITY

Any effort to study community decisionmaking and desegregation, or the effects of desegregation on the community, must assess the role of public opinion—which includes trying to assess the misinformation, confusion, and disillusionment that has shaped public opinion from 1954 to 1974.

Recently there have been several reviews of interracial attitudes (Campbell 1971; Ross 1974; Schwartz 1968; Sheatsley and Greeley 1972). Thus no effort will be made here to be comprehensive. Instead, we will present a selected review of aspects which are particularly important for school desegregation and closely tied to public policy.

In general, the trends noted in the reviews cited are toward less frequent stereotyping behavior, more frequent acceptance of civil rights for blacks, and increased willingness to accept interracial contact. Table 4.1, adapted from Davis (1973), illustrates the trend for the 1959-72 time period. It shows the constantly increasing proportion of white parents willing to send their children to school with blacks. The
Table 4.1
TRENDS IN ATTITUDES TOWARD SCHOOL INTEGRATION IN THE U.S. WHITE POPULATION
(Percent answering no to the question listed)

<table>
<thead>
<tr>
<th>Question and Region</th>
<th>1959</th>
<th>1965</th>
<th>1966</th>
<th>1969</th>
<th>1972</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you yourself have any objection to sending your children to a school where:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A few of the children are Negroes?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North</td>
<td>92</td>
<td>91</td>
<td>93</td>
<td>93</td>
<td>96 (1,002)</td>
</tr>
<tr>
<td>South</td>
<td>25</td>
<td>62</td>
<td>74</td>
<td>78</td>
<td>83 (336)</td>
</tr>
<tr>
<td>Half the children are Negroes?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North</td>
<td>63</td>
<td>65</td>
<td>64</td>
<td>69</td>
<td>79 (1,002)</td>
</tr>
<tr>
<td>South</td>
<td>12</td>
<td>27</td>
<td>44</td>
<td>47</td>
<td>60 (336)</td>
</tr>
<tr>
<td>More than half are Negroes?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North</td>
<td>35</td>
<td>37</td>
<td>32</td>
<td>39</td>
<td>45 (1,002)</td>
</tr>
<tr>
<td>South</td>
<td>8</td>
<td>16</td>
<td>27</td>
<td>26</td>
<td>32 (336)</td>
</tr>
</tbody>
</table>

SOURCES: 1959 through 1969 are surveys as reported in Gallup (1972); 1972 data are unpublished tabulations from the 1972 NORC General Social Survey.

NOTES: The 1959 and 1965 Gallup questions were asked only of "parents of school age children"; 1966 and 1969 respondents are not described as parents in the original source; 1972 data are for all respondents. Gallup N's are not reported, but should be close to those for 1972. All samples are of the total U.S. white population; 1959 through 1969 are for those aged 21 and older; 1972 is for those aged 18 and older.

questions given in table 4.1 were not administered prior to 1959, but others were and show a consistent and relatively constant trend for the entire post-World War II period.

An accompanying anomaly has been the fact that questions related to people's acceptance of the civil rights movement have not shown a similar change. For example, Table 4.2 (Campbell 1971) shows the percent of white respondents giving various answers to three questions concerning civil rights actions. What is shown in these responses is a general tendency for negative reaction to civil rights action to be high in 1968 just after the wave of riots, but dropping in 1970 to the 1964 level.

Thus we arrive at an anomaly; two aspects of public opinion which are highly related—acceptance of racial equality and acceptance of civil rights activity—do not show the same trend over time. In fact, for the period 1964-68 they were moving in opposite directions.

Writers such as Ross (1974) and Danzger (1968b) argue that this anomalous result can best be understood by examining the way in which public events (and the interpretation put on these events by community leaders and the media) have created confusion and internal contradictions in public opinion.

Nowhere is this confusion more pronounced than in the case of attitudes toward school desegregation. White citizens of the United States are opposed to busing. Asked directly in 1970 whether they favor or oppose busing, 86 percent said they opposed it and 11 percent said they favored it (The Gallup Poll, April 4, 1970). Davis (1973) reports that in 1973 the figure was the same. When asked about which strategies were best to achieve integration in public schools in 1973, only 4 percent
<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>1964</th>
<th>1968</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Some say the civil rights people have been trying to move too fast.</td>
<td>Too fast</td>
<td>68</td>
<td>68</td>
<td>57</td>
</tr>
<tr>
<td>Others feel they haven't pushed fast enough. How about you, do you</td>
<td>About right</td>
<td>21</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>think that the civil rights movement leaders are trying to push too</td>
<td>Too slowly</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>fast, are going too slowly, or are they moving at about the right speed?</td>
<td>Don't know</td>
<td>8</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>&quot;During the past year or so, would you say that most of the actions</td>
<td>Most have been violent</td>
<td>61</td>
<td>73</td>
<td>61</td>
</tr>
<tr>
<td>Negroes have taken to get the things they want have been violent, or</td>
<td>Some violent, some peaceful</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>have most of these actions been peaceful?&quot;</td>
<td>Most have been peaceful</td>
<td>23</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>&quot;Do you think the actions Negroes have taken on the whole helped their</td>
<td>Don't know</td>
<td>12</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>cause, or on the whole have hurt their cause?&quot;</td>
<td>Helped</td>
<td>21</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Both helped and hurt</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Hurt</td>
<td>63</td>
<td>69</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Don't know</td>
<td>12</td>
<td>7</td>
<td>9</td>
</tr>
</tbody>
</table>

**SOURCE:** Campbell, 1971.

of whites and 9 percent of blacks chose busing. Since 79 percent of the white citizens of the United States say they do not object to their children going to a school which is 50 percent black, there are—at a minimum—65 percent of the white citizens who favor extensive desegregation and oppose busing. Clearly, a more sophisticated and refined analysis of public opinion in this area is needed.

Coupled with this divergence in opinion with regard to school desegregation is a high level of misinformation. A national sample of respondents were read a series of six statements and asked to answer true or false. Forty-one percent of the public gave incorrect answers to at least five of these statements. An additional 42 percent were accurate on only two or three. Sixteen percent were able to answer more than half (Wall 1973; Orfield 1973). Equally as important as the level of information is the fact that the level of information is correlated quite strongly with people's opposition to school desegregation, especially busing. The less informed people are with regard to school desegregation, the more likely they are to oppose it and especially busing. In fact, this connection between information and public opinion is not unusual, though very rarely is either the presence of misinformation or ignorance of its effects included in the analysis of public opinion with regard to public policy. (See Rappaport [1974] for a discussion of this problem.)

**Trust in Government and Taxpayer Revolts**

The other trend in public opinion that makes a study of community reaction to school desegregation essential is a ten-year trend of decreasing trust in government and declining support for public expenditures—the so-called taxpayers' revolt. Data
from the Survey Research Center at the University of Michigan (Miller, Brown, Raine 1973A and 1973B) show that the period from 1965 to 1972 was one in which the proportion of U.S. citizens willing to express a high level of trust in government decreased from 65 to 35 percent (SRC Newsletter, Spring 1971), 28 percent giving cynical responses in 1958 and 45 percent in 1972. Additionally, cynicism has increased even more among blacks (Miller et al. 1973A and 1973B). This is one of the largest general shifts in public opinion that has been recorded. The shift is associated with attitudes with regard to race relations as well as other issues. A reasonable interpretation of the data which they present is that distrust of government and dissatisfaction with the way race relations are being handled form a reinforcing cycle. There is, in addition, some evidence, though certainly not conclusive, that the reinforcing cycle of dissatisfaction over the handling of race relations issues and mistrust of government polarizes groups within the society (Pomper 1972; Ross 1973).

Increasing dissatisfaction with government is also reflected in the percentage of “no” votes on school bond and tax referenda—from about 40 percent in 1963-64 to over 50 percent in 1971-72 (Rossell 1973).

Relating School Desegregation, Attitudes Toward Racial Policy, and Attitudes Toward Government

The phenomenon of increasing dissatisfaction with the handling of race relations policies, disillusionment and distrust in government, and disillusionment and distrust of groups for each other is an important ingredient of public opinion in the past 10 years. The causal links of these phenomena with one another, as well as with the discrepancies, misinformation, and confusion in people’s opinions with regard to school desegregation, have not been studied in the population as a whole, and thus we do not have a very clear understanding of the climate of public opinion in which school desegregation policies are initiated nationally. Nor do we have any convincing research demonstrating the way the climate of public opinion varies from community to community, thus making the problem of strategies for desegregation different from community to community. In fact, there is almost no research on the ways in which different strategies of school desegregation and different media interpretations affect public opinion with regard to school desegregation.

We do not know that interracial attitudes, attitudes with regard to school desegregation, and people’s trust in government vary from community to community. For example, Schuman and Gruenberg (1970) show that one can explain as much of the variance in interracial attitudes by knowing the city one lives in as by knowing the age, income, education, occupation, and sex of respondents; it makes as much difference where you live as who you are. A variety of research efforts—the analyses of data collected for the National Advisory Commission on Civil Disorders, say, or the study of city services conducted for the National League of Cities (Fowler 1972)—indicate that the community in which one lives determines a large part of one’s opinions concerning race relations and government institutions. Unfortunately, none of this research can provide conclusive answers as to the effects of public policies on the climate of public opinion or support given to public institutions for school desegregation.

It is possible to illustrate some of these interrelationships between public policy and public opinion in U.S. cities, though it is not possible to provide conclusive analysis; the data simply do not exist. Table 4.3 presents data on school desegregation action and public opinion for seven cities which were included in two different studies; while there are too few schools here for definitive conclusions, these data
Table 4.1
SCHOOL SEGREGATION ACTION AND PUBLIC OPINION IN SEVEN CITIES

<table>
<thead>
<tr>
<th>City</th>
<th>Tauber Index for Schools</th>
<th>Index of Policy Action Taken</th>
<th>Public Opinion</th>
<th>Percent of Blacks in School System</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Percent Who Think School Board Is Doing Good Job Handling Desegregation</td>
<td>Percent Who Favor Increased School Expenditures</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Kansas City, Ka.</td>
<td>63.4</td>
<td>0</td>
<td>26</td>
<td>6</td>
</tr>
<tr>
<td>Kansas City, Mo.</td>
<td>86.3</td>
<td>0.3</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Milwaukee</td>
<td>83.3</td>
<td>0.9</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>Albuquerque</td>
<td>71.6</td>
<td>0</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>Baltimore</td>
<td>82.3</td>
<td>6.6</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Denver</td>
<td>53.9</td>
<td>23.7</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>San Diego</td>
<td>70.5</td>
<td>0.2</td>
<td>26</td>
<td>6</td>
</tr>
<tr>
<td>Mean(a)</td>
<td>71.3</td>
<td>4.5</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>Median(a)</td>
<td>71.6</td>
<td>0.3</td>
<td>17</td>
<td>10</td>
</tr>
</tbody>
</table>

\(a\) For 67 cities in original study.

do provide us with an example of the kind of analysis that could be done when data become available for more cities. First, it shows scores on two measures of desegregation taken from a study of school desegregation politics sponsored by the Carnegie Corporation and conducted at the National Opinion Research Center (Kirby, Harris, Crain, and Rossell 1973; Rossell and Crain 1974; Morlock 1973; Rossell 1973). This study included 93 cities. The first measure is an index of dissimilarity which indicates the proportion of students of either race who would have to change schools in order for each school to reflect the ethnic percentages of the total school population. For example, in the case of Kansas City, Kansas, in order for each school to be 33 percent black and 67 percent white, 63.4 percent of the white students or 63.4 percent of the black students would have to transfer. The second measure is an index of the number of black students transferred to interracial schools because of an explicit act of school system policy. (Blacks are used because the proportion of white students moved is uniformly low.) Thus, this measure is indicative of policy action over and above any natural desegregation due to housing integration.

The third and fourth columns of Table 4.3 show the percent of white and black residents who think the school board is doing a very good job handling school desegregation. The fifth and sixth columns show the percent who favor increased public school expenditures—again for blacks and whites separately. (These data are derived from a 15-city study of public services conducted for the National League of Cities by the Survey Research Program of the University of Massachusetts.) And finally, the percentage of black students in the school district is shown.

\(1\) Of course, reasonable desegregation plans would reassign students of both races, but it is mathematically much simpler to use as a measure of segregation the percent of students of one race who would need to be reassigned.
Several features of the discussion above are illustrated by Table 4.3. First, it illustrates the degree to which school systems are segregated—in these seven cities an average of 73 percent of the students of one race would have to be transferred to totally desegregate the school system. Second, it illustrates how little school systems have done. An average of 4.5 percent of the black students (and virtually no whites) have been transferred. Third, it illustrates the general dissatisfaction with public school systems in U.S. cities; an average of 19 percent of white respondents and 11 percent of black respondents think the school board is doing a good job.

Racial polarization can be seen in an analysis of the relationship between school desegregation action and opinions vis-à-vis public school systems. This can best be shown by rank-ordering the five columns in Table 4.3 and computing Spearman rank-order correlation coefficients. There is a negative association of school board action to desegregate with white evaluation of the school board’s handling of desegregation \( (r = -0.76) \) and a positive association with black evaluation \( (r = +0.86) \). As districts increase in level of desegregation, whites become more dissatisfied and blacks more satisfied.

So far, the analysis is simply supporting the obvious. But beyond this, the results are very surprising. First, the measure of school desegregation action is essentially uncorrelated with opposing public school expenditures for either race \( (r = -0.17 \) for whites, \( -0.28 \) for blacks, both not significant).

The taxpayers’ revolt may be a reaction to school desegregation, but it is obviously a reaction to many other factors as well (inflation, general political mistrust, etc.), and school is simply an easy mark for that frustration. If these results held for a larger sample, we would conclude that school desegregation does not account for much of that revolt.

Finally, it must be noted that school systems which seem to be naturally less segregated because of residential patterns also create or are surrounded by a much different climate of public opinion. This again is suggested by the rank-order coefficients between the overall segregation index (col. 1) and white attitudes toward school board desegregation activity. Since there is so little administrative desegregation in these cities, most of the desegregated schools that do exist are the result of residential patterns. There is a positive evaluation of school boards associated with such natural desegregation; indeed if we remove the one city with a large desegregation plan, Denver, there is a positive correlation between amount of desegregation and white support \( (r = +0.73) \). This is a contradiction, but it is consistent with the contradiction found in surveys—that whites like desegregated schools but not desegregation.

The above analysis, although tentative at very best, does illustrate the complicated process of interaction in U.S. cities between interracial public opinion climate, school desegregation policy, and reactions to school desegregation.

The present lack of information and evidence is paralyzing. We know that public opinion is disjointed, misinformed, and confused. We know that this makes the desegregation of schools more difficult. We do not know how differing aspects of public opinion are related to each other. We do not know how differing strategies of school desegregation affect public opinion. Thus, it is currently impossible to make informed judgments with regard to what strategies of school desegregation are least likely to polarize people and reduce support for public institutions, are most effective in creating a climate of acceptance, and are most conducive to the development of

---

5 Such coefficients range from \(+1.0\) to \( -1.0 \). They are zero if there is no relationship between two rankings. The closer the rankings are to each other, the closer the coefficient is to \(+1.0\); the farther apart they are, the closer the coefficient is to \( -1.0 \).
interracial harmony. Therefore, any study of the most effective way to desegregate schools should include:

- A study of public and community reaction to different school desegregation policies and strategies.
- An understanding of the climate of public opinion existing in different communities and the best strategies for coping with that climate.
- Support for the school system as a public institution and support for individual schools.

For these reasons, the research program suggested in this report includes a research project studying community reaction to school desegregation strategies. This study permits an efficient analysis incorporating both ends of the continuum that may face policy-makers: (a) the situation in which public opinion is hostile and must be overcome and (b) the situation in which public opinion is supportive and where school desegregation can be a vehicle for the creation of a truly interracial community.

The Impact of Desegregation on Public Attitudes

Some researchers argue that the most important factor affecting the school is the attitude of white parents. Note that cognitive dissonance theory leads us to predict desegregation itself will make prejudiced parents more tolerant, regardless of how desegregation is handled. The hypothesis is that the following syllogism is psychologically untenable:

IF Associating with blacks is bad
AND My child associates with blacks
THEN: My child is having a bad experience.

Some people can tolerate the idea that their child is suffering at the hands of the school; but many cannot. The only way out (short of moving, which is expensive) is to decide that perhaps associating with blacks is not so bad after all, or that “the ones in my child’s school are a better class.” Either argument forces parents to raise their evaluation of the other group. There seems to be no question that southern whites have changed their attitudes about desegregation sharply in the past decade (Greeley and Sheatsley 1971, Schwartz et al. 1967), although we don’t know whether northerners have done so. Most important, we don’t know what impact desegregation has had on their children.

Public opinion about school desegregation must be studied in the context in which it exists. Although much of the research is ten years old or more (Williams and Ryan 1955; Crain et al. 1968; Mack 1970; U.S. Civil Rights Commission 1973), comparative case studies of decisionmaking and school desegregation provide some persuasive hypotheses that must be pursued. Public statements by school members, political leaders, and civic leaders in support of, or in opposition to, school desegregation will move public opinion in the same direction. The degree to which the news media interpret school desegregation as controversial and report implementation as difficult, troublesome, or violent will increase opposition to school desegregation. The failure of the school system to plan for desegregation and to prepare the staff for it will increase opposition to school desegregation. The failure of the school system to prepare for school desegregation by involving parent and community groups in planning may increase opposition to school desegregation. If critical process variables such as these can be analyzed in the larger context of community characteristics affecting attitudes toward school desegregation, then alternative policies and strategies that would be viable in different kinds of communities can
be recommended. Such an analysis requires a general model of the process. Such a model is presented in Fig. 4.1.

We propose to study the effects of different school desegregation strategies, tactics, methods, and procedures on the response of parents and other citizens. Through political leaders, the mass media, and children's reports, parents and citizens formulate the opinions and perceptions about school desegregation that will eventually determine the viability of the public desegregation policy. The ability of any community to provide equal educational opportunities depends on public support.

In addition, we want to evaluate school desegregation as a process affecting race relations in general, as indicated by attitudes and behavior, and to learn whatever we can about right and wrong ways to desegregate a school district, given a goal of continuing community support from both minority and white citizens.

We are not so much concerned with whether school systems desegregate as how they desegregate. The major independent variables of our model are school desegregation and its characteristics, including such factors as court suits and the characteristics of the desegregation plan, both in terms of the mechanics (degree of busing, voluntary or mandatory, redistricting, reorganizing grade structure, etc.) and the involvement, attitudes, and behavior of community leaders prior to school desegregation. We also realize that prior social, political, and economic characteristics of the school district, as well as prior characteristics of the school system itself, have an independent effect on community reaction.

The major intervening variable is the amount of conflict and controversy generated by the desegregation decision both in the community and within the school. The major dependent variables measuring community reactions are:

- Changes in racial attitudes and attitudes toward related public policies.
- Institutional change regarding race relations in the community.
- Changes in the behavior of white parents, such as white flight to private schools or the suburbs.
- Defeat or recall of school board members, or defeat of bond and tax referenda.
- Changes in attitudes and behavior of black parents and community leaders, such as different political demands for further school desegregation or other benefits to the black community.

The independent variables in this analysis include the major policy manipulatable variables in the research and, in addition, the variables related to strategies for social change, including the types of demands made on the school board, the type of pressure exerted on the school board, the source of such demands and pressure, and the significant characteristics of litigation with regard to school desegregation. We need to know whether school systems are more likely to desegregate when local complaints are backed by national organizations than when they are not, and whether such backing might affect the type of desegregation policy and plan that a school system initiates.

The prior characteristics of the community and of the school system are also not manipulatable through public policy nor are they within the control of advocates of school desegregation or social change. However, since we do know that such characteristics have a strong impact on policies and plans adopted, levels of controversy, and citizen reaction to school desegregation, we need to understand the degree to which such influences constrain public policies. Finally, with regard to independent variables, the manner in which political leaders respond, the way the school system implements a plan, the mass media interpretation of the plan, and the reaction of grass-roots organizations are important predictors of community reaction, suscepti-
Fig. 4.1—Analytic model for analysis of community response to school desegregation
ble in varying degrees to manipulation by public policy. They do not normally provide a clear policy choice but certainly have implications for strategies adopted.

The most important intervening variable mentioned above is the amount of conflict and controversy that can arise at several stages in the desegregation process. We need to key our measurement to these stages and also to keep in mind that increased controversy and conflict are not necessarily undesirable. Indeed, no real social change comes about without some tension within the system and, thus, without increased controversy and conflict. Beyond a certain point, however, controversy and conflict are detrimental to school desegregation, school integration, and improved overall race relations, but the location of that point is a matter for empirical research. We have some conceptual guidelines in, for example, Coleman (1957), Gamson (1966, 1970), and Cozer (1965). We assume then, that controversy, conflict and tension are not only inevitable but can be creative. Only with a longitudinal analysis can we locate their productive middle ground and assess the effects.

A General Model of the Community Desegregation Process

The general analytic model outlined in Fig. 4.1 will guide the proposed research. This model illustrates the components of the desegregation process as they vary from one school district to another.

The model moves from left to right both in terms of time sequence of events and actions, and in terms of causal ordering. A more complete model would include much more exhaustive feedback loops, since we would expect actors to react to subsequent events, which would then affect subsequent political processes and policies. However, the simplified process shown can be a helpful analytic device because the process being analyzed is clearly pictured as one of policy determinants and policy impact. Even without feedback loops, the analytic model is complex.

Above the dotted line in Fig. 4.1 are community-level characteristics, starting on the left with structural characteristics determined prior to school desegregation activity in the 1960s or 1970s, and leading to structural effects of attitudinal and behavioral change of citizens, as well as political reorganization. Below the dotted line are personal characteristics of individuals that are expected to affect the way they perceive events, react to them, and feel about them. The shaded areas passing vertically through the plane of the community decisionmaking process indicate points at which controversy and conflict intervene.

Figure 4.1 suggests a six-step analysis. The first part of the analysis searches for factors causing a school system to desegregate, and asks why a district chooses a particular type of desegregation plan; it is concerned with the links between boxes A, B, C, D, E, F, and G.

The analysis is focused on characteristics of desegregation litigation, on measured change in school racial compositions over time, and on differences in the strategies pursued by policy-makers. The longitudinal design of the research also permits a more precise analysis of how policy change is initiated. Probably as important as the causal analysis in this part is the descriptive survey of what school systems have done; no such current survey exists.

The second part of the analysis focuses on the reaction of the community’s leadership and institutions to the desegregation plan—boxes H, I, J, and K. This analysis asks, how did the individual schools implement the plan, how did political leaders and the media react, and what did community organizations do? We cannot understand the reactions of individual citizens until this analysis is done.

Citizen and parent reactions to school desegregation are a function of the intensity of conflict leading to and resulting from desegregation. Thus citizens react to the
reality of litigation, policies, plans, and opposing self-interests as they are refracted through the prisms of political leaders' responses, media interpretation, and grassroots leadership reaction.

The third part of the analysis examines how the community's handling of the desegregation issue (boxes A to K above) influences the individual citizen's reaction (box f). This is the most critical link in the study. Citizen support for the school system and tolerance among races are necessary to the survival of a pluralistic urban society. Individual parents and citizens will determine the future of school desegregation. Their reactions are not haphazard nor predetermined, but vary significantly with the way school systems are desegregated and the way in which the events surrounding such desegregation are presented to them in the media, by political leaders, and by the school system employees themselves.

The fourth part of the analysis ignores the community factors and considers the way in which personal characteristics of citizens affect their response to school desegregation. This analysis focuses on the relationships between boxes a through f, but it also includes box B.

We know from a variety of sources that personal background characteristics of people affect both their general racial attitudes and their responses to specific issues such as school desegregation. We therefore intend to include a variety of personal characteristics in the research. However, it is equally important to understand the contextual effects that the climate of public opinion has on peoples' attitudes towards school desegregation. By contextual effects we mean aggregate characteristics of the social climate in which people live. Thus, as an example, people who are less educated are more likely to be intolerant than people with higher levels of education. However, people with less education who live in communities with high average education levels are less likely to be intolerant than people of low education in communities with low median levels of education. This is true for background variables such as education and occupation. It is equally true and as importantly for attitudinal variables; however, the latter have rarely been analyzed. For example, the degree to which average level of intolerance or prejudice in a community affects individual prejudice and intolerance, although a complicated statistical analysis, is an important concern that should be studied.

There is a subsidiary part of the fourth analysis which is important enough to be isolated as a separate analysis.

Perhaps the single most important determinant of parents' reluctance to send their children to newly desegregated schools is their fear of violence (box d). Whites fear that blacks have a violent life style which leads them to disrupt classrooms and endanger the physical safety of their children. Blacks have 400 years as victims of violence at the root of their fears. Racial conflict is frequently reported from desegregated schools, but the reports may be exaggerated, the conflict may not be harmful to students, and may not be truly racial in character. The factual incidence of conflict and violence is important in determining parents' reactions, but the way in which such facts are reported by the media is probably equally important. Thus, we have partitioned out an analysis of the way in which leadership reaction to school desegregation affects fears of conflict and violence, thus influencing people's reaction to school desegregation.

The sixth and final part of the analysis focuses on the impact of citizen reaction (box f) on the total community response to segregation (box L).

The brief illustrative data analysis presented in Table 4.3 above suggested even at the very simple level of two responses how varied the black and white combinations can be and thus how very different community climates can be created. The community is more than the sum of its parts.
All of these six analyses are interrelated. Most importantly, both the social contextual and individual level effects of background characteristics will be included in parts three and four of the analysis. Thus, one should show the effects of school desegregation policy and of leadership media response on public opinion above and beyond any individual predispositions and for citizens with different predispositions.

Dilemmas in the Desegregation Planning Process

The importance of the leadership of the school system—the superintendent, the board, the mayor—in bringing about effective desegregation has been pointed out in the literature. Some writers have pointed out the way in which community opposition to desegregation can be decreased if the school system can present desegregation as inevitable and irreversible. Other writers have emphasized the importance of desegregation planning and involvement of the participants in the decision. While the argument, summarized in Fig. 4.2, is straightforward, it contains within itself two contradictions.

On one hand, planning requires time; therefore a desegregation plan that provides ample lead time is preferable. On the other hand, a court-ordered desegregation plan has a stronger sense of the inevitable and therefore works to reduce community resistance; but court-ordered plans invariably have short lead times, preventing much planning.

The other dilemma lies in the classic contradiction between elitist and mass theories of political change. Since both theories contain important elements of truth, they lead to a natural contradiction. Community support for desegregation is gained by holding community meetings and attempting to win people over; at the same time these meetings provide an opportunity for opponents of desegregation to mobilize, so the more meetings that are held, the more conflict. The dilemma lies between wanting to force desegregation through as rapidly as possible before opposition appears, and wanting to prepare the community to accept desegregation through a series of activities involving community members.

One important question is, What other function does the desegregation process perform? The flowchart of Fig. 4.2 indicates that planning provides a device to develop symbols indicating that the leadership is committed to desegregation. It is one mechanism that permits a pro-integration superintendent to advertise his position. The creation of a human relations team in and of itself may advertise the fact that the school system wants good human relations.

DESEGREGATION AND THE SCHOOL

Stages of the Schooling Process

In developing a general approach to our two fundamental questions "What happens in a desegregated school that makes it different from a segregated school?" and "How can desegregated schools be improved?" we have borrowed the notion of an input-output model from the Coleman report (1966). However, we elaborate on it to distinguish several analytic stages of the process occurring in the school, in order to consider how the presence of these intermediate stages either permits or prevents the inputs from completely determining school outcomes. The eight stages of our schema are shown in Fig. 4.3.

The outside factors of Stage 1 influence the school in a variety of ways. The school district provides the staff for the school; the district desegregation plan deter-
mines student body composition; the district’s educational goals, its financial condition, and its formula for dividing funds among schools determine the school’s resources.

The school is not a passive receptacle for community decisions, however. It has its own internal decisionmaking apparatus (Stage 2), which determines how it will allocate its resources, what expectations it will have of its staff, what special policies it will institute. Stage 1 and Stage 2 factors combined influence the desegregation process, which is both an influence on and is influenced by subsequent stages in the model.

The school’s learning environment can be analyzed under three headings: learning tools available to students and the special programs and policies that the school

---

**Fig. 4.2**—A flow-chart of the effect of the desegregation process on staff acceptance of desegregation

---

**Fig. 4.3**—Stages of the process within schools
has instituted (Stage 3); behavior of the staff toward students (Stage 4); and behavior of the students themselves (Stage 5). Together these three aspects of the learning environment provide the student's experiences at school. The student reacts to these experiences, interpreting them (Stage 6) to form attitudes about his performance at school, about the school itself, and about his fellow students. His attitudes provide the motivation base for learning—the internalization of intellectual skills and personal attitudes (Stage 7). These internalized skills and attitudes the student carries with him into Stage 8, adulthood.

There are major feedback loops in the system described in Fig. 4.3. If the school fails in one area, the failure is likely to be multiplied. For example, if it fails to teach students to read, a multiplier effect occurs as students become alienated and hostile toward other students and their teachers. Conversely, if students are psychologically depressed by a cold or racist environment, they will lack the motivation to learn.

The Global Model: Some Fundamental Theorems

Our model represents a bringing together of basic theorems from psychology, education, sociology, and political science. Let us briefly highlight some of these theorems:

- The overall model makes use of the contemporary prevailing view of the school as a learning environment. Parents and teachers have little to do with the students' actual learning process. Rather, they establish the learning environment by providing a curriculum and a set of materials and by controlling the student with a mixture of rewards and punishments.

- Many of our hypotheses about academic performance will be derived from a cognitive input-output model of the school. Students learn what they are taught, and they learn it to a degree proportional to the amount of energy invested by the school in teaching it.

- There is also an affective input-output model which argues that the emotional growth of students depends on a large measure on the love they receive at an earlier age. This model, normally applied to the family, is applicable to the school as well.

- Attitudes and behaviors in one area affect those in other areas in a number of ways. For example, level of anxiety has an effect on rate of learning. Conversely, difficulties in learning may be a source of frustration which leads to aggression expressed in various ways—toward one's self, toward others, or toward members of another ethnic group (scapegoating). Expectations about one's relationships in one area may be generalized to others. (For example, students who feel disliked by their teachers may develop a general expectation that authority figures will always dislike them.)

- The students in a school must be analyzed as a community in which their sense of membership or degree of alienation have an important effect on the degree to which they accept the norms and values of the school.

- Students form attitudes toward members of other ethnic groups in a variety of ways. The contact hypothesis specifies a number of conditions that enable contact with members of another group to lead to favorable feelings. But contact is not enough. Students' attitudes toward other ethnic groups are to a large extent affected by peer-group norms. Attitudes are also modeled after the attitudes students perceive in adults, such as parents or teachers. Finally, attitudes about race relations may, like other attitudes, be taught. The school has explicitly or implicitly a curriculum in race relations.

- A number of theories lead us to expect the behavior of teachers to be the most important factor in the school. We have noted the importance of role modeling in
developing racial attitudes; considerable research has documented the role of teacher expectations in student performance. The teacher is in some ways a surrogate parent in the affective system of the school. But teacher attitudes in the area of race relations can be influenced in much the same way that student attitudes can be. The ideological climate of opinion surrounding the teacher can lead to attitude change. In addition, concepts such as cognitive dissonance lead us to hypothesize that structural changes in the school that require teachers to alter some of their behavior will also lead to attitude change and hence to more general behavioral change. (The teacher who is required to teach from a multi-ethnic curriculum will find himself expressing personal views which, hopefully, are consistent with that curriculum.)

• Finally, the school is viewed as a political unit. Decisions that are binding on the group of actors in the school—both teachers and students—must be made. These decisions will not be made in a simple authoritarian or bureaucratic fashion, but as a result of various influences from teachers, students, parents, outside agencies. These are, then, by definition, political decisions and can be analyzed as such.

**The Global Model: A More Detailed Overview**

Figure 4.4, which lists the major elements of the model (organized according to the first seven stages of Fig. 4.3), catalogues the types of variables to be discussed in this section. In general, there is an implicit left-to-right causal flow; most variables affect most of the variables in the columns to the right. There are also many cases when a factor feeds back to influence a factor on the left; the most interesting of these are shown by dotted arrows.

The school district central administration affects the school in three important ways:

1. It selects the school staff by its recruitment policies and its policies regarding tenure of teachers and principals, transfers and promotions.
2. It allocates learning resources to the school; this is partly a function of the total financial condition of the district, but it is also a matter of the priorities set by the central office regarding which kinds of resources to provide to which schools.
3. The school's educational goals and educational policies, as communicated to the principal in various directives, influence the school. These policies are also influenced by the community at large—by political groups, elected officers, the media, civil rights activity, etc.

The desegregation plan may be simply a formula assigning students to schools, but more likely it will outline new school policies, new school policy-making procedures, and new school-community relationships. All these factors come together in influencing the behavior of the school administrator and they, combined with the directive of the administrator, influence the attitudes and behavior of the staff. In addition, there are important peer group effects among teachers so that, for example, the racial composition of the teaching staff and the way in which staff members interact will influence the behavior of each teacher.

Teacher behavior is also affected by decisions that have been made regarding specific school programs—a subject much discussed and written about because the programs are seen as natural points of intervention for change agents attempting to influence the school. We have selected five such special programs for intensive analysis: (1) parental involvement, including involvement of the parent in the child's learning and involvement of the parent in the school's decisionmaking apparatus; (2) the introduction of multi-culturalism into the curriculum; (3) individualization of instruction; (4) the structure of activities provided for the students outside the classroom (clubs, activities, student government); and (5) homogeneous or hetero-
Fig. 4.4—The global model
geneous ability grouping of students. These, along with administrative behavior and staff behavior, are discussed later in this section.

We argue that these factors, together with the types of materials provided the students (here called learning tools), interact with the composition of the student body and the behavior of the staff to provide the educational environment in which the students may or may not learn.

The behavior of staff toward students is a complex topic, involving as it does the quality of teaching and the teacher’s expressive behavior and reactions to students of different ethnic groups or achievement levels.

When we examine the experience of the student in this learning environment, we first focus on the collection of rewards, punishments, and joys he experiences. His contact with teachers and students of other ethnic groups is another important element of his behavior, and related to this is the experience the desegregated school provides for his parents to contact parents of other ethnic groups.

As a result of these behavioral changes, student attitudes and levels of ability should be affected as shown in the next to the last column of Fig. 4.4. The school, according to this model, can affect the student’s sense of school pride and identification with the school community, which in turn affects his interest in learning and his attitudes toward school. The school, by affecting his rate of learning, and by rewarding him for learning, affects his self-evaluation. The rewards received by his ethnic group and the way in which the school teaches multi-culturalism should affect his attitudes toward his own group; the school similarly affects his evaluation of other groups. We hypothesize that many of these attitudes (Fig. 4.4, last column) are internalized and become a permanent part of the student.

Important feedback effects in this model are indicated by dotted arrows in Fig. 4.4. Like those effects indicated by solid arrows, they are not intended to be all-inclusive; an argument can be made that almost every variable in Fig. 4.4 affects almost every other variable. But the important reversals occur in two areas: (1) parental involvement is both a consequence of school policy-making and an important input affecting both school decisionmaking and the resources available to the school (through parent contributions in time and money), and (2) cognitive performance is not only caused by, but also leads to, favorable or unfavorable attitudes toward the school, toward scapegoating of other ethnic groups and rebellious behavior.

A central theme running through our model might be called sense of commitment, and evidence of this commitment to successful desegregation is reflected in application of the five special programs listed in Fig. 4.4, school policies regarding teacher behavior, and the actual behavior of the teacher in the classroom. Thus, the general hypothesis to be tested here is that pressures exerted on the school to make desegregation work—by the community as a whole, parents, students, the school district’s central administration, and the school board—influence school decision-making and allocation of resources in such a way that the structure encourages, and the staff demands, good race relations and high quality education.

**Effects of Desegregation on Students**

In this subsection we consider the general effects of segregation versus desegregation on students; we later discuss how different methods of desegregation may have different effects on students. Our discussion makes dichotomous distinctions between the effects of segregated and desegregated schools, and while we recognize that these distinctions are idealized rather than real, we use the hypothesized effects to generate theories of some of the possible impacts of desegregation. We can group
the arguments on the effects of desegregation on students under five headings, depending on the postulated intervening factor: (1) changes in school resources, (2) changes in staff performance, (3) changes in socioeconomic mix of students, (4) changes resulting from cultural conflict, and (5) direct effects of ethnic desegregation.

1. **Changes in School Resources.** The argument is that minorities benefit from desegregation primarily because majority-group schools receive more tangible resources. This argument leads to the corollary that desegregation planning should include placing some majority-group students in every school, so as to insure that the majority-controlled school system will wish to improve all schools. The counterargument is that compensatory funds are more easily allocated to minority students if these students are concentrated in a few schools, rather than widely scattered. The Coleman report found little disparity in resource allocation by race in schools, but we should bear in mind that the report measured only the most tangible resources.

2. **Changes in Staff Performance.** A more subtle version of the first argument is that intangible resources, particularly staff attitudes and behavior, may be more positive in desegregated schools. Conversely, it is argued that minority schools are often "written off," by school and district staff, and even perceived as hopeless by the minority community. The counterargument is that in desegregated schools, the minority students are "written off," and the staff shows favoritism to majority students.

All these arguments are extremely important, and none has been adequately examined by research to date.

3. **Changes in Socioeconomic Mix of Students.** The third argument, strongly supported by the Coleman data, is that minority students benefit from desegregation through contact with majority-group students, not because they are of a different ethnicity, but because in most cases they are of higher socioeconomic status. This argument would, of course, hold regardless of student race.

Convincing data have shown that low-status students are more likely to want to attend college and will score higher on standardized tests as the status of the other students in the school increases. Briefly, there are three hypotheses as to why this effect occurs:

(a) The hypothesis that teachers aim their lectures at the middle of the class, and the bottom students are thus pushed harder. (Walberg [1969] shows that the single best predictor of gains in science knowledge in high school classes is the percentage of students who say the course is hard!)

(b) The peer hypothesis that students learn both cognitive material and values from each other. The simplest point is merely that a student who gets help from someone else on his homework will learn more if the helping student knows more. In addition, the low-status will pick up middle-class norms—about going to college, doing homework, postponing marriage until career needs have been met, avoiding delinquent behavior, etc.

(c) The "critical mass" hypothesis that argues that dispersing lower-status students into classrooms dominated by middle-class students reduces the negative impact of the potentially more disruptive behavior of low-status students. Thus one student who disrupts the class x percent of the time means that only \((1 - x)\) of the class hour is available, while two students acting independently will reduce the amount of teaching time to \((1 - x)^2\). Worse yet, the two students will react to each other, reducing it further. Note that this argument does not require any hypothesized peer teaching effect to predict positive effects of socioeconomic integration.

Conversely, it is argued that whites suffer because the overall social status of the
student body is likely to decline with desegregation. Although there is little empirical support for this hypothesis, the issue of socioeconomic mixing of students merits additional study.

4. Changes Resulting from Cultural Conflict. Cultural conflict theories hold that minority students suffer in a desegregated setting because their unique cultural, linguistic, and social background is treated as a "disadvantage" by the majority-oriented school. This complex argument, never tested empirically, is extremely difficult to distinguish from the simpler argument that minority students are victims of staff racism.

The cultural conflict hypothesis specifies that learning will be impaired because learning tools will not be adapted to the culture. This issue is particularly serious when the minority has a different language background; hence the strong interest in bilingual education as an innovation.

However, many writers have argued that "cultural pluralism" is as relevant an issue in black-white relations as it is in Puerto Rican or Mexican-American/Anglo relations.

5. Direct Effects of Ethnic Desegregation. The argument that students are directly affected by the racial composition of the school differs from the four preceding arguments. Even if all four of the preceding hypotheses were true, it would still be possible in some communities to construct a segregated school free of cultural conflict, with high-status students, ample physical resources, and a carefully chosen staff of competent, enthusiastic teachers—and this school could provide the same or better educational environment than any desegregated school. In contrast, the fifth argument holds that the student in a desegregated school is experiencing a radically different, worthwhile educational situation, simply because it is a desegregated school. Several hypotheses are postulated for this argument:

(a) That when students learn to accept ethnic differences in desegregated schools, they will be able to generalize this to more tolerant attitudes in general and to a stronger endorsement of democratic values.

(b) That desegregation modifies the real curriculum of the school, by introducing race relations as an issue. This has two possible effects: (1) For some students, it provides a challenge—an opportunity to develop skills in group problem-solving and to practice humanitarian skills. (In Sec. 2, we noted that the President’s Scientific Advisory Panel Report recommends providing such opportunities as a major goal of the schools.) (2) The experience of dealing with a new social situation is a form of cultural enrichment—the school presents a new environment to the student—which would lead us to hypothesize, for example, higher rates of college attendance after desegregation.

(c) That desegregation will create a "Hawthorne effect" among teachers, who will work harder when faced with the challenge of desegregation.

(d) Finally, we should consider the possibility that desegregation provides students with a social situation that is more interesting than in the segregated school. Desegregation, like interschool football, is a communal focus which provides an alternative to the day-to-day tension and anomie that plagues some schools. In addition, the curriculum may be modified, to make it more relevant to students, with the unexpected side effect of making school more interesting. However, it is sometimes argued that the level of tension in a desegregated school may be high enough to damage students psychologically.

All the hypotheses in this subsection share a common concern with interaction effects: many of them lead to predictions that desegregation will have different effects (1) at different ages, (2) on males and females, (3) in the North and South, (4)
over time as a newly desegregated school ages, (5) depending on which minority groups are involved, and very likely (6) depending on how desegregation is executed.

Effects of Desegregation Plans and Extra-School Factors on the Success of Desegregation

The desegregated public school is not an ivory tower—it is the beneficiary and the victim of a set of decisions made outside the school. Here we discuss some ways in which the community desegregation plan may make a difference.

Table 4.4 presents a preliminary grouping of independent variables that are useful for analysis of extra-school factors. We hypothesize here that the racial relations in the school have their most immediate impact on the racial attitudes of students. It may well be that nonracial attitudes are in turn affected by these racial attitudes, but in order to understand the way in which community factors affect school functioning, we can begin by focusing on how these factors affect student racial attitudes and student race relations.

The independent variables in Table 4.4 group themselves easily under three headings. First, the community desegregation plan determines the demographic composition of the school; the important variables here are the age at which the students are desegregated, the ethnic groups represented and their ratios, and the socioeconomic status of the students. Second, in the process of desegregating, important community variables come into play; the most important of these are the amount of time available for the schools to plan for desegregation, the leadership

<table>
<thead>
<tr>
<th>Table 4.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF DESEGREGATION PLAN (INDEPENDENT) VARIABLES</td>
</tr>
</tbody>
</table>

A. Student Characteristics

1. Age
2. Ethnicity: ratio; bi-/tri-ethnic; language/race
3. SES
4. Territoriality

B. Desegregation Process

1. Lead time
2. Leadership
3. Community conflict
4. Certainty of desegregation

C. Non-School Related Racial Climate

1. Housing patterns
2. Residential stability
3. Local political issues
4. Local civil rights activity
5. General white attitudes

D. Plan Mechanics

1. Grade levels
2. School size
3. Travel distance
4. Number, age, race of students who are assigned to different schools
of the community, the amount of conflict about desegregation, and the degree to which it is believed the desegregation decision is irreversible. Third, a number of aspects of race relations in the community which do not have anything to do with the schools directly may impinge on schools indirectly. No doubt the most important of these is the pattern of racial segregation in housing, and concomitantly the presence of changing neighborhoods. In addition, local political issues (such as a law and order issue) in the community, the degree of civil rights activity, and the question of whether the general white attitudes of the community are liberal or conservative are all important. Let us consider each of these three groups of variables in more detail.

Student Composition: Age, Ethnicity, Social Status, Territoriality. What is the optimal age for desegregation? Some desegregation plans concentrate on imposing desegregation on older students, leaving younger ones in segregated neighborhood schools. What limited data exist suggest that this policy is unfortunate. Data are needed on the developmental growth of self-concepts, racial attitudes, and other personality dimensions: At what age are attitudes formed? How stable are they? Is it necessary to catch the students in their "formative years"?

Desegregation planners must also be concerned with the ideal racial composition, and in cities with more than one minority, must choose between organizing bi-ethnic or tri-ethnic schools. The merits of tri-ethnic schools can be investigated; from a theoretical perspective, they raise only one new issue beyond those already discussed: the question of coalition formation. One can imagine various conditions under which a coalition will form between two ethnic groups against a third. It might form out of sheer power, out of a sense of perceived common interest, or simply out of attractiveness of one group for the other. Formation of such coalitions may have a strong effect on the quality of the school.

No research has been done to determine an optimal racial composition, and it seems likely that the optimal racial balance will vary from one community to another in a complex fashion. In addition to the obvious question of which group is in the majority, there is the question of the equality of numbers. If one group is a decided majority and is willing to use even a small amount of physical force, the smaller group is coerced into passivity. Thus we would predict that predominantly black schools and predominantly white schools would have less racial tension than schools where the two groups are roughly equal in number.

Insofar as the optimal socioeconomic composition of a school is concerned, it can be argued that the smaller the socioeconomic gap between two groups, the greater the opportunity for racial contact, the greater the amount of shared interests, and the less the sense of inequity. On the other hand, a number of hypotheses argue against this view. First, when one attempts to achieve roughly equal socioeconomic status by bringing together relatively high-status blacks and relatively low-status whites, one can expect more aggressive behavior on the part of the low-status whites because they are physically more aggressive and because their belief in their ethnic superiority would be strongly threatened. In addition, high-status blacks may be more verbally aggressive, since they have the skills with which to articulate grievances and organize to present demands, and are capable of generating more verbal conflict than are low-status blacks. The high-status members of a community are more attentive to the media and are earlier adopters of innovations. "Black militancy" in high schools is indeed an innovation transmitted by the mass media, and we can (at the present time) therefore expect high-status black students to show more "hip" behavior, which may irritate whites. If one considers the possible consequences of various socioeconomic mixes, we generate a set of hypotheses along the lines of those in Table 4.5. In that table we distinguish between physical and verbal
aggression and also between anxiety (which we define as a discomfort without an obvious reality base or without a clear sense of who the aggressor is) as opposed to fear (which has a clear sense of threat from an identifiable source).

Territoriality, or "turf," is another factor in desegregation planning. How are schools that are clearly within one ethnic group's home neighborhood, or that were previously identifiable as being for students of one group, different from those on "neutral grounds"? Presumably the "home" group will have a greater sense of power. What are the consequences of this? Are students from another area denied access to the political processes of the "home" school?

The longer a school has a fixed racial composition, the more likely it is that stable race relations will develop. This suggests that issues of territory and prior racial designation are most serious in newly desegregated schools, and in schools with unstable population ratios.

**Desegregation Process.** The actual process of desegregation—the way decisions are made, the level of conflict, the behavior of community leaders—will affect the attitudes and behavior of students. We often assume that students are unaffected by what happens in the adult world; but it is likely that students will model their behavior after that of adults. This does not necessarily mean that community con-
conflict will always lead to conflict in the schools; in some cases students may react against the conservatism or reactionism of political leaders, rather than emulate them.

**Noneducational Racial Relations in the Community.** The impact of important variables in this area is either obvious and unlikely to be a source of controversy among theorists, or else so unknown as to prevent the development of a complicated argument. We would hypothesize that the single most important variable affecting race relations in a school is the presence or absence of a changing residential neighborhood. The white students in a changing neighborhood bring to school with them their interpretation of the anxieties and anger that their parents feel. In addition, neighborhood change directly impinges on white students, who can anticipate moving and leaving their friends behind, or watching their friends move away. In the simple logic of the white child, the black student is seen as the cause of his friend's leaving.

Students can be expected to generally model the behavior of adults in the community. If the community is racially conservative, we can expect white students to be more hostile to blacks. If the minority community has a strong civil rights movement, we can expect minority students to be more aggressive in demanding their rights, and we may even expect white students to be more sympathetic to civil rights. If the community itself is tense because of the fear of crime, we may expect parents to watch the schools more closely looking for the least sign of violence. Alternatively, we can argue that a community with a higher crime rate trains parents to be tolerant of minor incidents of aggression; the alternative hypotheses are testable.

**POINTS OF INTERVENTION**

School programs, which reflect the commitment and spirit of the school, are often seen as natural points of intervention for change agents attempting to influence a school. However, to simply intervene with a new school program, without simultaneously legitimating the need for change to the staff, parents, and students of the school, is not apt to produce the desired results. Consequently, we propose intensive analysis of how school administrators and staff behave, both because their behavior is important in its own right and because school programs reflect the attitudes of the staff.

**Principals and School Decisionmaking**

Management of successful desegregation is similar in many ways to the implementation of other educational innovations, except in a more extreme form. Compared to most other educational changes the decision to desegregate involves more actors in the school and more relationships with the community and generates more insecurity and anxiety within all segments of the school community. For these reasons, we expect that the factors generally related to the success of educational innovation are critical in desegregation and, further, that inspection of a successful desegregation process may uncover important variables typically obscured in other efforts to implement planned change in education.

The literature on educational innovation and planned change\(^2\) and the litera-

---

\(^2\) Sarason (1971); Gross et al. (1971); Smith and Keith (1971); Miles (1964).
ture on desegregation stress the importance of the institutional setting and the process of implementation. However, neither institutional, management, nor process variables have been studied in large-scale empirical research.

There is no coherent theoretical prospective on planned changes in education. Literature outside the field of education—organization theory, leadership studies, and the diffusion literature—is useful, however, in suggesting what the important variables and relationships may be when organizational effects and variations in the effects of management practices are considered. Although a number of systems have been developed to classify management practices and leadership attributes (Seashore and Bowers 1963; Katz and Kahn 1966; Mann 1964), the scheme developed by Rensis Likert (1967) is most widely accepted and has received the greatest empirical verification. Likert has measured management styles and practices along such dimensions as motivational forces (which include notions of group loyalty; skill levels; normative environment); communication processes (the communication patterns available to the group); processes of initiation and influence; processes of decisionmaking, control, and goal setting. Likert and others identify three basic attributes of leadership which have been found to be positively related to organizational effectiveness or productivity: (1) adherence to principles of supportive relationships (i.e., helpful but firm; nonpunitive), (2) establishment of high performance goals, and (3) group methods of supervision (i.e., democratic as opposed to authoritarian leadership and decisionmaking).

The notion of "democratic" leadership or decisionmaking emerges across these theoretical perspectives as a crucial variable. This is not entirely surprising since social science research concludes that individuals best understand those things they have actually experienced, and support those decisions in which they have participated. Also, decisions reached interactively result more often in desired action than those decisions handed down from on high. In short, theorists generally agree that a democratic or participatory management style can be a powerful device for attitude and behavior change within organizations—one that can create incentives and motivation not achieved by authoritarian strategies.

The empirical work done thus far in the area of desegregation appears to confirm this suggestion. A participatory mode of decisionmaking and management has been found to lead to desegregation plans that have greater support and legitimacy, and that are more responsive to the multiple needs and interests of participants. Once desegregation efforts move from the planning to the implementation stage, management styles appear to affect differentially the extent to which there is a genuine unity of purpose, and an open, supportive atmosphere in which problems can be resolved.

* Studies undertaken by the U.S. Civil Rights Commission also are practically unanimous in identifying the central relationship between the behavior of [school boards], superintendents, and principals and the outcome of desegregation efforts. See also Smith et al. (1973).

* The conceptualizations presented by these bodies of theory should be treated primarily as suggestive since the assumed conditions are somewhat different from those to be found in the case of desegregation or educational change. For example, organizational theory, especially the earlier work (Blau and Scott 1962), deals primarily with routinized behavior, not change. Leadership studies have typically been conducted and calibrated in industrial and government settings. Both the leadership and organizational studies examine settings that differ from the school, along such dimensions as market incentives, specification of a production function, and professionalization of lower level staff. The diffusion literature treats somewhat different circumstances in that it deals essentially with "products," while desegregation is an event and a process.

* Two related concepts often employed in leadership studies—"consideration" and "initiating structure" (i.e., specificity of goals, character of motivating forces)—have been found in Solvin (1960) to be positively correlated with Likert's measure of democratic leadership style. Halpin (1955) conducted one of the only studies that related concepts of "consideration" and "initiating structure" to behavior of educational administrators. He found educational personnel to be low on both measures.
A second general point on which there is broad agreement is that the way administrators communicate goals, rules, and policies (the normative environment) significantly influences staff behavior. For example, both the theoretical and empirical literature implies that the clarity and specificity with which goals and expectations are communicated by administrators will be directly related to teacher performance, group cohesiveness, and job satisfaction—all of which are related to student performance.

As management practice changes, the organizational structure, particularly its decision-making process, also changes. If parent participation increases, and teachers are more involved in decisions, the power may be apportioned differently. This raises the fundamental issue: Who makes decisions how often?

The research literature shares a common focus on what administrators can do to increase the probability that a desegregation effort will be successful in terms of student outcomes, teacher attitudes and behaviors, and community relations. Are there management styles and practices which—other things being equal—are consistently more successful in promoting smooth transition and in bringing about the broad-based changes required by a decision to desegregate?

Although the importance of management practices in implementing planned change in education is suggested by both the empirical and theoretical literature, the empirical work is typically uninformed by theory, and the theoretical work is lacking in empirical verification. And to our knowledge, these questions have not been asked of desegregation efforts in any systematic way. It is expected that a study of the effect of management practices on the implementation and outcome of desegregation efforts will result in grounded theory concerning ways in which different management styles and policy-making practices can affect the process of desegregation, as well as suggest ways in which school district personnel can modify their staff relations and policies so as to promote successful desegregation.

Figure 4.5 presents in schematic form the variables that should be measured and the relationships to be investigated.

**Causal Variables**

**Organization Structure**
- Process of interaction and influence
  - Centralized/decentralized formal structure
  - Hierarchical/horizontal information and decision flow

**Management Practices**
- Style of decisionmaking and control
  - Democratic
  - Authoritarian
- Motivational forces
  - Planning and implementation (initial and ongoing)
    - Participants—superintendent/school board, principals, teachers, students, other community members

---

1 Research caution us that the relationship between leadership styles or characteristics and organizational effectiveness (or outcome) is likely to be (1) situational— influenced by such background variables as personality and community climate (Fiedler 1958), and (2) curvilinear. These findings imply that a research design should (1) vary leadership characteristics and situational variables both separately and jointly so that interaction effects may be specified, and (2) specify the model in nonlinear terms, since a linear model could be expected to underestimate the effects of leadership practices to an unknown degree.
Fig. 4.5—A model of management/leadership effects on desegregation

- **Foci**—community relations, teacher training, curriculum changes, student orientation, administration changes
- **Normative environment**
  - Specificity of expectations—role performance, goals, rules, guidelines, etc.
  - Fairness—discipline, hiring, student/staff assigned status, supportiveness (training, accessibility, employee-centered versus job-centered)
  - Communication patterns—frequency of interaction with/among participants, quantity and direction of information flow (formal/informal vertical/horizontal), evaluation and feedback (summative and formative)

**Organization Goals**
- Commitment to effective desegregation (early, positive, unanimous)—commitment to idea of desegregation, commitment to "do a good job"
- Consensus of principal actors
- Feasibility
- Clarity: goal statement (made in behavioral terms)
- Congruence between formal and informal goals regarding desegregation

**Intervening Variables**

**Community Relations**
- Attitudes toward desegregation and schools
- Support for plan
- Involvement in planning and implementing job
- Access to information
- Access to staff
Organization Climate
- Cohesiveness, mutuality of goals
- Flexibility
- Openness
- High interdependence of actors
- Racial conflicts

Staff Behavior and Attitudes
- Cognitive orientation—in/pre-service training, expectations for success, role perceptions
- Affective orientation—rational attitudes, positive appreciation of diversity, commitment to desegregation, loyalty to school, administrative sense of autonomy, personal effectiveness

Teacher Behavior

A study of school desegregation would not be complete without a thorough examination of what takes place in the classroom. Primarily, the focus will be on a study of teacher-student interaction and on how this process affects the behavior and attitudes internalized by the student.

Most people believe that what the classroom teacher does affects the behavior of students, but they do not know how. Boocock (1966) reviewed 25 years of research only to conclude that "very little seems to be known about the relationship between what teachers do in the classroom and the subsequent behavior of students." While attempting to provide a set of measurable characteristics of teachers, Hanushek (1971) ultimately concluded that "there is a considerable part of teaching that cannot be explained by a set of fairly standard variables measuring teachers and classrooms."

This relationship becomes even more complicated when we attempt to study the influences of teachers on children in interracial classrooms, where both teaching and learning may have racial components. For example, a teacher may have a preconceived notion regarding the performance of minority-group students which may affect the actual performance of her students. Thus, a teacher's expectation of poor performance by a pupil may serve as an educational self-fulfilling prophecy (Rosenthal and Jackson 1968). A teacher may also have some misconceptions as to the characteristics of various groups of students. Hawkes and Furst (1973) conducted a study that revealed that black children from the inner city manifested a much higher degree of anxiety than did their white peers in the suburbs. They subsequently administered an instrument to 628 pre- and in-service teachers, which was designed to measure the conceptual differences these teachers had of inner-city children versus children from private and suburban school settings. The majority opinion held by this population of 628 pre- and inservice teachers was that "the black inner-city child was not as likely as his middle-class peer to worry, and was unlikely to manifest symptoms of anxiety" (Hawkes and Furst 1973). Such conceptions determine, in part, how a teacher will interact with her students, and illustrate the need for teaching training prior to school desegregation.

In addition, minority- and majority-group students may respond differently to different types of teacher behavior, as well as perceive a teacher's behavior differently. One student may feel that the teacher asks questions to try to trick students and

* For a criticism of their methodology, see Snow and Elashoff (1971).
make them feel dumb, whereas another student may feel that the teacher is reinforcing learning by asking questions. Thus, while teacher-student interaction is at the core of the educational process, the exact nature of this interaction is compounded by what the teacher and student bring into the relationship in terms of their background characteristics, their attitudes, goals and expectations, and their prior experiences. Figure 4.6 illustrates the basic components of this process.

Fig. 4.6—Basic components of teacher-student interaction

The SES, achievement level, sex, and ethnicity of the students, combined with the characteristics of the teacher, produce a set of teacher goals and expectations which ultimately determine the teacher’s behavior. Characteristics of the teacher that affect her behavior include:

- Background characteristics—race, sex, SES of parents, age, racial attitudes, educational level, academic ability, prior attitudes toward children
- Prior experience—in interracial settings, with students of different SES, with students of different ability
- Prior training—in-service training, pre-service training, human relations training
- Job satisfaction—satisfaction with teaching, job security, satisfaction with present school

In addition, the climate of the school will directly affect the teacher’s attitudes and consequently, the teacher’s behavior. By school climate we mean such things as the school’s commitment to desegregation, the racial composition of the teaching staff, the morale of the staff, the number of teacher transfers as a result of desegregation, the stability of the school, the school administration, and parental influence on the school and staff. School climate can alter teacher attitudes; the teacher may become more tolerant of other ethnic groups and even have a change in basic attitudes toward children.

As a result of these influences, the teacher develops attitudes toward the students, and sets goals and expectations for the class, which in turn become manifest in how the class is organized, the tasks assigned to students, and the teacher’s behavior in the classroom.

The instructional strategy being used (individualized, small groups, lecture method, etc.) and the seating arrangement in the classroom will have a bearing on the interactions of the teacher and the student. For example, different instructional
strategies will involve different patterns of interaction. And previous research indicates that there are prime seats within a classroom and that students in these prime seats tend to be more involved in teacher-student interactions.

Most of the many methods for classifying teacher behavior use the class as a unit of analysis rather than the individual student, thereby yielding global assessments of how the teacher deals with the class as a whole. This assumes that all children in the class receive the same treatment; however, there is considerable evidence that there are large intra-class variations in teacher-pupil interaction patterns; teachers do treat children differently.

Few studies have investigated teacher-pupil interactions among students of different ethnic groups. One study was undertaken by the U.S. Commission on Civil Rights to investigate possible disparities in the way teachers treat Mexican-Americans and Anglos in the same classroom. The results show an overall disparity in teacher-pupil interaction, with a bias towards Anglo students (U.S. Commission on Civil Rights 1973).

Finally, the flow is completed with a feedback loop; students respond to the teachers, and this interaction affects the teacher's expectations, leading to modifications of the teacher's behavior.

The effects of teacher-student interaction fall roughly into three categories: group dynamics, group academic attitudes, and group classroom behavior. These variables can occur at either the classroom level or at the level of the individual student, without necessarily occurring at both levels. For example, the class as a whole may be very responsive to the teacher, but there may be individual students who do not participate at all in the learning process. Also, the behavior of the class as a whole, as well as the behavior of individual students within the classroom will serve as a feedback mechanism to the teacher and may ultimately modify the teacher's behavior.

The system is, therefore, dynamic. Teacher behavior affects the class as a whole, as well as individual students within the class, and their behavior, in turn, modifies teacher behavior. We are ultimately concerned with how this process affects the behavior and attitudes internalized by the students (see Table 4.6).

Programs

We have singled out five special programs that we believe can make a difference in the outcome of school desegregation: parental involvement; introduction of multiculturalism into the curriculum; individualization of instruction; homogeneous or heterogeneous ability grouping of students; and student nonacademic activities.

1. Parent Involvement and Desegregation. The debate over the impact of parent involvement in the school setting has thus far been waged chiefly with exhortation instead of evidence; it remains unresolved for many reasons. Since parent involvement is sometimes more myth than substance, or inappropriate for the target parent group, it is often questionable whether genuine parent involvement has been achieved. Second, evaluations of parent involvement have tended to focus only on student achievement over a single school year, thereby overlooking the (cumulative) effect of increased parent involvement on teachers, school policies, school climate, and even on the parents themselves. On balance, existing evidence about the effects of parent involvement is incomplete and unconvincing.

Nonetheless, there is widespread support for the notion that parent involvement in education is important, particularly for minority and low-income parents in desegregated schools. Low-income and minority parents themselves contend that the teaching methods, curricula, and objectives of the schools do not address the
Table 4.6
INTERVENING VARIABLES

<table>
<thead>
<tr>
<th>Group Dynamics</th>
<th>Effects on Class as a whole</th>
<th>Effects on Students Within Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cohesiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes toward teacher</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Racial contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sense of control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude toward teacher</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Academic Attitudes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expectations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Group Classroom Behavior       |                            |                                     |
| Responsiveness to teacher     |                            |                                     |
| Decorum                        |                            |                                     |
|                                |                            |                                     |
| Participation                  |                            |                                     |
| Decorum                        |                            |                                     |

needs of their children, and in fact, discriminate against them. These parents argue that the result of effective parent influence in school policy-making will make classroom practice more relevant and effective for their children.

Social-psychological theory also supports the principle of increased involvement for low-income and minority parents, but for somewhat different reasons. Theorists such as Bloom (1965), Hess (1969), and Deutsch (1967) point to the positive function parent involvement can play in developing mutually reinforcing values between home and school, promoting positive parental attitudes toward school and the non-family world, and building a sense of effectiveness and fate control for those parents typically excluded (by design or choice) from participation in school affairs.

Research that has focused specifically on biracial settings supports this. Weinberg (1970), for example, reports that parents’ aspirations influence the child’s own aspirations and sense of self-worth. (See also, St. John 1970.) Katz (1964) amplifies this view by suggesting that black children have not expected (or received) much explicit parental approval for intellectual tasks. Katz, like Weinberg, identifies parent attitudes as a crucial variable. He argues that low achievement, anxiety and a propensity for self-devaluation, which are all interrelated, are each in turn related to perception of low parental interest and acceptance, and high parental punitive-ness.

From this point of view, involvement strategies that furnish parents with information about the intellectual development of their child, techniques they can use to help the child in the home, positive attitudes about their child’s expectations for success, as well as a sense of their own acceptance or equality in the school setting are expected to make positive contributions to a student’s cognitive and affective growth. (This theoretical perspective has led to the development of both parent participation models and parent education strategies.)

See the Haryou Report (1964) for the earliest articulation of this point of view.
In the instance of desegregation, parent involvement becomes important for yet another (and essentially political) reason; a successful desegregation effort must permit parents to exert influence in its planning. The decision to desegregate is usually accompanied by conflict, uncertainty, and anxiety; further, minority parents are typically asked to carry the burden of implementing a desegregation plan (i.e., busing). Empirical studies of school desegregation suggest that the outcome of a desegregation effort will be positively influenced by the extent to which minority parents play a significant part in shaping desegregation plans and decisions specifically, and educational policies generally. A sense of self-determination, according to this literature, is critical for parents involved in a desegregation effort (St. John 1971).

Edgar Epps (in Smith et al.) states this position in unequivocal terms:

... the historic powerlessness of minority group members over their own condition of life can be overcome only if they play a significant part in shaping educational policies and programs in public schools ...

Effective desegregation requires that minorities be assured of an influential role in educational decisionmaking ...

Taken together, these alternative models of parent involvement (classroom practices, desegregation planning, and parent education) suggest that parent involvement strategies will result in the following outcomes, which are positively related to the success of a desegregation effort:

- Legitimacy for desegregation plan.
- Development of positive parent attitudes and skills.
- Appreciation of cultural diversity within the school community.
- Mutual respect and understanding concerning home and school values and problems.
- Development of educational policies which are responsive to the special needs and priorities of low-income or minority students and parents.
- Promotion of positive intergroup relations both within the school and within the community.

Simply constructing a "parent involvement program" is not enough. The literature indicates a great deal of variability (both within and between parent involvement models) in the success of parent involvement strategies in achieving effective parent participation, and that parent participation in school affairs co-varies with social class. We believe that this finding is not primarily a reflection of "apathy," but an indication that many traditional parent involvement strategies for low-income and minority parents are inappropriate and provide few structures for regular parent influence on the school. Most programs have not been designed with low-income and minority parents in mind and have tended to resemble the PTA afternoon-tea model of school contact favored by white middle-class teachers and parents. In few instances where parent programs have been constructed with the needs and interests of low-income parents in mind, parent response has been enthusiastic and the results impressive (Miller 1969, Gordon 1969). The implication for the desegregated setting is that schools that before desegregation were predominantly structured according to white middle-class preferences and values will have to rethink parent involvement strategies and formulate programs appropriate for the new parent community served by the school, not merely offer "more of the same."

However, the state of the art is such that the guidelines for effective parent
involvement strategies remain based primarily in theory, rather than in successful practice. We expect that the wide variation in parent involvement practices from district to district (and, indeed, from school to school) will permit us to identify involvement strategies which appear to be "best bets," as well as to explore the impact of these successful strategies on schools, school staff, parents, and students. Figure 4.7 presents a schema and a listing of variables.

**Parent Involvement**

*Independent Variables*

School management practices
- General style of decisionmaking (democratic/authoritarian)
- Type of control (laissez-faire/dictorial)
- Communication adequacy (information flow, accessibility, etc.)
- Fairness (discipline, assignments, etc.)

Organizational goals
- Commitment to desegregation
- Congruence between formal and informal goals
- Clarity and specificity

Parent involvement strategies
- Parent participation—classroom activities, extracurricular activities, school meetings, school advisory councils, staff/parent conferences

---

**Fig. 4.7**—Parent involvement model
• Parent education—home visits, school meetings, neighborhood groups, staff/parent conferences

School personnel
• Behavior—interaction with parents (home and school), communications with parents (type, amount, staff initiated), participation in design and conduct of parent programs or materials
• Attitudes—racial attitudes, understanding of parent values and problems, appreciation of cultural diversity, expectations regarding minority parents and students

School programs and policies (parent perception of and impact on:)
• Curriculum
• Extracurricular activities
• Support services
• Community relations

Dependent Variables

Student outcomes
• Cognitive—grades/other teacher ratings, standardized achievement tests
• Affective—self-concept, school-related attitudes, racial attitudes, perception of parent (school related) roles and values, sense of belonging

Parent outcomes
• Cognitive/behavioral—school-related skills, increased contact with school, increased (school-related) interaction with child, increased information about child and school
• Affective—racial attitudes, self-concept/fate-control, perception of influence/acceptance in school setting, school-related values, expectations for child, expectations regarding parent role in child’s education, satisfaction with school

School climate
• Racial tension
• Cohesiveness, unity of purpose (open/supportive)
• Appreciation of cultural differences
• Morale
• Community relations

2. Curriculum Modification: Remediation, Compensatory Education, Multiculturalism. Another manipulatable process variable that might operate in the desegregated school is modification of the curriculum to meet the students’
needs. Such modifications might include, but are not restricted to, remediation, compensatory education, and multicultural education.

A good deal of confusion presently exists over the definitions of remediation and compensatory education; many educators and theorists give them a negative connotation and tie them to a "deficit" model of education. In principle, they were most likely conceived as means to assure that all children realize benefits from equal educational opportunity, regardless of race or socioeconomic status. Prior supportive services and curricular modifications were felt necessary to maximize these benefits. Once the compensatory curricular modifications have had the desired effect, the student is assumed to be ready to follow the standard curriculum with the "normal" groups (Fantini and Weinstein 1968). In practice, however, remedial programs may lead to a perpetuation of dual instructional systems, ethnocentrism, and institutional racism. Fantini and Weinstein see the primary failure of remedial and compensatory curricula as their attempt to change the product of schooling rather than the process. Reliance on these assumptions has made compensatory programs vulnerable to attack by research which, based on these same assumptions, uses standardized measures to determine change in the product after compensatory interventions have been made.

This is not to say that compensatory education has failed, as some authors have concluded (Jensen 1969). Where remediation and compensatory education have been undertaken as interventions into the educational process, rather than interventions into the life of the product, they have probably been most successful (Fantini 1968). When children receive benefits from sincere attempts to enrich the standard curricula and modify traditional structures to the needs of individuals with different cultural and cognitive styles, the learners and the educational institution undoubtedly benefit. Getting the learners' parents involved—not to show them the "right" way to help their children or to allow them to remediate themselves, but in a genuine attempt to elicit their participation—is similarly beneficial (Hunt 1967, Wilcox 1968).

This suggests that the spirit in which compensatory or remedial programs are undertaken is as important as their presence or absence. This spirit could be reflected in the district policy as articulated by the school superintendent; but it is most likely to be critical at the point of closest contact with the student—his teachers and principal. No matter what the district policy is, without the implementation of a school staff who believe in it, little can be done. If the foregoing is correct, school staff attitudes and behavior may be categorized on a continuum from egalitarian (that is, believing in the capability of the child to maximize his potential), to compensatory (believing that the child cannot maximize his potential because he is deficient in some way). One would then hypothesize that children's growth would be maximized in a situation encompassing some compensatory curricular modifications, and where staff behavior and attitudes about the children and the curriculum tended toward egalitarian rather than compensatory; or that their growth would be retarded where compensatory curricular modifications were absent, and staff behavior and attitudes were rated compensatory. It would then follow that the compensatory programs

---

10 This "deficit" model effectively "blames the victim," or the child who does not have the cognitive skills as measured in standardized achievement tests. It assumes that there is something wrong with him—some deficiency—and sets about to remedy or compensate for that deficiency by placing him in an "enrichment" program.

11 Such product orientation, rather than process orientation, assumes (1) that we know all of the causal relationships in schools; (2) that they are all associated linearly; and (3) that provision of equal opportunity provides immediately equal outcomes. Each of these assumptions is probably false, and further reliance on them denies the wonder of human variation. Christopher Jencks' Inequality is a timely statement about the fallacy inherent in these assumptions.
would have no effect when the staff behavior and attitudes are rated as compensatory. These hypothesized outcomes are illustrated in Fig. 4.8.\footnote{Note that the attitudinal variable is not perceived as dichotomous; that is, we do not believe a teacher is only compensatory or only egalitarian in attitude and behavior. They are depicted as dichotomies in Fig. 4.8 only to illustrate our point.}

In the spirit of modifying the schooling process rather than its product, multicultural education has become a popular approach. Its primary assumption is that intergroup relations skills are as important for success in modern America as the traditional skills of reading, writing, and arithmetic. It is an attempt to modify the school curriculum to foster an appreciation of cultural diversity in the learning process. Designed to be of value to all students, not just minorities, multicultural programs may be even more important in segregated schools in preparing students to deal with cultural diversity later. In June 1972 the 92nd Congress recognized this in PL 92-318, which in part stated:

In recognition of the heterogeneous composition of the Nation and of the fact that in a multi-ethnic society a greater understanding of the contributions of one's own heritage and those of one's fellow citizens can contribute to a more harmonious, patriotic, and committed populace, and in recognition of the principle that \textit{all persons in the educational institutions of the Nation} should have an opportunity to learn about the nature of their own cultural heritage, and \textit{to study the contributions of the cultural heritages of the other ethnic groups of the Nation}. [Emphasis added.]

What such cultural infusions into the curriculum consist of is pretty much a local matter. For example, many school districts have modified their social studies curricula to include individual contributions of outstanding ethnic minority group members to the standard study of great men and women in U.S. history. Others have added separate ethnic studies courses to the options available to students, and still others have attempted to root out the ethnocentric bias in courses other than social studies, such as science, reading, language, and literature.

It is difficult to hypothesize about the effects of multicultural education on students. The area is too new for any research to have been produced, and standards
for such education are far from universal. In general, though, we would expect any attempt made at curriculum modification in this respect to have positive effects on the attitudes of students and staff, and we hope to find evidence of this from the results of the study.

3. Individualization of Instruction. Another manipulatable variable that may operate in the desegregated school is individualization of instruction, which recognizes the rights of children to be different from each other. Development of classroom techniques to individualize instruction helps solve one major problem that often accompanies school desegregation: the wide range of student achievement levels in each classroom. Smith, Downs, and Lachman (1973) suggest eight techniques for this purpose:

- Individual student plan books, prepared by teachers and updated periodically, can include the teacher’s goals for the child, as well as work schedules.
- Teachers’ aides, both volunteer and professional, can help give the teacher necessary time to devote attention to students who either need extra help, or who are ready for more advanced work.
- Student tutors in the classroom can be either para-tutors who have mastered a particular area or older students who are brought in to provide help. In either case, the tutor usually benefits from the experience as well as the student receiving the assistance.
- An independent study program, in which each student develops and carries out projects under the guidance of the teacher, is applicable at all levels. Specific time periods are set aside each week for students to work on independent projects and to receive feedback from the teacher concerning their work. This individual attention from the teacher can be especially beneficial for students who may not feel a part of the classroom.
- A team teaching arrangement can assist a teacher in individualizing instruction by permitting one teacher to work with individual students while another teacher leads most of the class.
- Modular scheduling divides the day into segments of time called mods, which can be combined in various ways to meet specific instructional needs.
- Teaching machines, programmed instruction, and other innovative materials oriented toward individualizing instruction have been developed. They vary in their degree of complexity, and some require in-service education to instruct teachers how to use them.
- In an observation and exchange program, teachers observe other teachers who have mastered individualizing instruction. Schools should also have resource persons available to assist teachers in their efforts to individualize instruction.

The key to individualized instruction is flexibility. If a school or a teacher is unable to be flexible, students in that school or classroom will not be treated individually. We hypothesize that a desegregated school that is able to individualize instruction—to treat students as distinct individuals—will also be a school that promotes and achieves cultural pluralism.

4. Classroom Organization. Frequently, changes in classroom practices accompany school desegregation. How do these various changes affect student achievement, self-concept, racial attitudes, and the like? At the extreme, we will be looking at the effects of resegregating students within the classroom by ability grouping or other tracking procedures. Previous research on the effects of tracking has produced mixed results; no definitive statement can be made concerning the effects of tracking on the achievement level of students. Tracking is most apt to affect negatively both the self-image of students placed in the bottom track and the interpersonal relations between students of various tracks.
Katz (1968) asserts that for desegregation to have positive motivational effects on black performance the situation must be: "low in racial threat and failure threat and high in social facilitation and probability for success." In his experimental work, where these conditions were not met, Katz discovered that black performance on learning tasks was negatively affected. He summarizes that black performance was best in "interracial situations relatively free of stress and threat, moderate in all-Negro situations, and worst in interracial situations characterized by stress and threat."

The instructional practices followed by a teacher or school can reduce or enhance failure threat and affect a student's self-esteem. Goodlad (1967) summarizes:

1. environmental deprivation characterizes the social milieu of a substantial segment of our pupil population throughout their school career;
2. traditional practices of nonpromotion and interclass grouping in the graded school system are likely to pile up in academically segregated classes a disproportionate number of disadvantaged children and youth;
3. experience and research to date suggests that such practices do not remedy the learning problems of pupils who are so segregated; and
4. certain side effects (loss of self-respect, etc.) of nonpromotion and interclass homogeneous grouping in schools seem to aggravate the very conditions education for disadvantaged boys and girls is supposed to remedy.

The official or implied school policy will affect the instructional practices followed by a teacher. For example, a school might encourage its teachers to try new methods, thereby fostering innovative techniques in the classroom. On the other hand, a school might implicitly condone ability grouping, ultimately creating segregated classrooms. Teacher behavior and expectations, as well as student ability and SES, will also affect the classroom structure and instructional strategy used. For example, a teacher facing a class of students with a wide divergence of ability and SES, who perceives that these students have different needs and interests, may decide to use a combination of flexible programming, small groups, individual work, and peer tutoring. Figure 4.9 illustrates the basic components of a classroom organization model, with examples of how specific strategies may affect students within a classroom.

Different strategies of classroom organization will ultimately produce different effects. We do not know if the effects would be the same if the classroom were composed of majority-group students rather than minority-group students, a combination of both, or students of different SES levels. Nor will one type of classroom organization necessarily prove to be the right way of organizing for all desegregated schools. A study of classroom organization would shed light on these important issues.

5. Student Nonacademic Activities. We define student nonacademic activities to include all structured activities outside of the academic curriculum. This would include all traditional extracurricular activities, and also such nonacademic courses as music, drama, shop, athletics, and irregular events such as dances, and spectator participation in school athletics or performances.

These activities can have a great impact on the self-concept, achievement, and interaction of students. In fact, for students who are not academically inclined, but who can do well in sports, drama, and other nonacademic activities, these activities foster feelings of self-confidence and participation they do not find in the classroom. It is, therefore, very important that as part of the process of school desegregation, school officials encourage participation and arrange extracurricular activities so that participation by all students is convenient.
Fig. 4.9—Classroom organization

Every student has an image or concept of himself; his past experiences, as well as his successes, has failures and other people's responses to him tell him what he is. Participation in extracurricular activities can have an effect on the self-image of a student. For example, participation can positively affect a student’s self-image by:

- Providing status
- Raising the status of one's race
- Providing opportunity for achievement and recognition
- Providing peer group acceptance
- Labeling one "popular,” “star,” “beautiful,” etc.
- Developing skills and talents
- Providing opportunity for success. (Smith et al. 1973)

On the other hand, by denying any of the above, participation (or lack of participation) in extracurricular activities can negatively affect a student’s self-image.

Student activities also have a potential for either increasing positive interracial contact among students or creating racial tension. Some activities, such as sports or interest clubs, are more apt than others to provide positive interracial contact among students. Selection procedures for extracurricular activities and the racial composition of the participating groups must be given special consideration in desegregated schools, or these activities can be damaging. If the policies established by the school and its staff are fair and sensitive, however, extracurricular activities can play a positive role in the process of education and in racial interaction.

Types of extracurricular activities might include:

**Membership activities**

- Competitive sports and related expressive activities (intramural sports, cheerleaders, majorettes, marching band, drill team, ROTC, etc.)
- Interest clubs, academic clubs (amateur radio, debating, school newspapers, yearbook, history, language, science, etc.)
- Social and service clubs (fraternities, sororities, Junior Kiwanis, etc.)
- Cultural/expressive groups (instrumental music, drama, chorus, etc.)
• Honor clubs (National Honor Society, Who’s Who, etc.)
• Political—elected and appointed (student government, student participation in school decisionmaking)

Nonmembership activities

• Social events (school dances, socials)
• Spectator activities (athletics, concerts, plays, interschool contests, science fairs)

The type and amount of activity, as well as participation of students in extracurricular activities, will be influenced by various contextual variables such as: the desegregation plan, SES of the school, size of the school, level of the school (elementary or high school), and the orientation of the community.

For example, many desegregation plans call for closing a formerly all-black school and transferring all students to a formerly all-white school. If the newly desegregated school retains the same name, athletic team names, school colors, school songs, and student government that it had when it was all white, its identity will be based on the interests of only some of its members, thereby fostering disunity. Likewise, a school that has part of its student population transported by buses will preclude these students from membership in extracurricular activities if it does not hold activities during school time or make provisions for late buses to enable all students to participate in after-school activities.

As a result, a desegregated school may have extracurricular activities that are integrated (various ethnicities are involved, all with full and equal participation); desegregated (various ethnicities are involved, but are separated within the activities or share unequally in power, status, etc.); segregated (only one ethnic group participating); or some combination of all three. This may occur through formal or informal policies that allow activities to be based on the financial capability of students to participate, grade, randomness, nonacademic talent, ethnicity, or popularity. For example, academically poor students who might be able to achieve success or status through student activities are often prevented from participating because of grade average requirements. (Although this may be a successful academic incentive!) A school could choose to eliminate or lower this grade average requirement or allow incoming students to participate based on marks earned the previous year at their former school. Some students may be eliminated from participation because they are unable to pay the fees or purchase the necessary equipment or uniforms. A school could prevent this from happening by eliminating the costs of participation.

A school could intentionally promote biracial clubs and encourage participation (1) by actively recruiting for membership, (2) by specifying racial composition requirements for status activities such as cheerleaders, (3) by providing biracial sponsors for clubs, (4) by eliminating popular vote and selecting rather than electing, and (5) by randomly selecting students to serve during the first year of desegregation from the student government representatives and student officers of the two merging schools.

The nature and extent of these extracurricular activities will not only affect individuals who participate, they will also affect other students and the school as a whole. A winning football team not only provides the team members with status, it also provides the school with a measure of prestige and serves to promote a sense of identification with the school. On the other hand, if clubs exist which exclude from membership students of the incoming group, then not only will the status and prestige of the club members be enhanced among themselves, but the low status of the incoming students will be reinforced.
We will need, therefore, to look at the ethnic composition of extracurricular activities and clubs both prior to and after desegregation, the ethnicity of students in status positions, the provisions made by the school to promote multicultural representation in activities, and the interpersonal contact created in these activities in order to ascertain the effects of extracurricular activities on the racial attitudes, self-concepts, happiness, and achievement of students.
5. ISSUES IN RESEARCH ON SPANISH-LANGUAGE STUDENTS

When school desegregation is discussed, it is usually done in reference to the black community. However, the *Brown v. Board of Education* (1954) U.S. Supreme Court decision applies equally well to other minority groups. For instance, on June 4, 1970, Federal District Judge Woodrow Seals, in *Cisneros v. Corpus Christi Independent School District* held that Mexican-Americans are an "identifiable ethnic group" for the purpose of public school desegregation (Salinar 1971). This decision thus paved the way for Mexican-Americans to be considered under the *Brown v. Board of Education* decision.

Early in the planning stage of this research design, the U.S. Civil Rights Commission decided that it would be unfeasible to study all the minority groups potentially affected by school desegregation. However, it was decided that the second-largest minority in the country, consisting of Spanish-speaking people, had to be included. Rand thus selected Development Associates, Inc., of Washington, D.C., a Mexican-American and Puerto Rican minority consulting group, to prepare an issues paper to provide Rand with guidance and planning information for use in the development of a study design and instruments.

The complete Development Associates report is included here, preceded by a brief summary of their work and an overview of bilingual/bicultural education.

**SUMMARY OF THE DEVELOPMENT ASSOCIATES REPORT**

The major points of the Development Associates report are as follows:

- The present educational system is failing to meet the needs of Spanish-cultured students, especially in the area of language and supportive services.
- The general consensus of opinion in these communities is that the mere mixing of differing racial, ethnic, and/or cultural groups as students does little to bring about the changes they feel are necessary to enhance educational outcomes for their children. Spanish-speaking communities feel that unless the inherently Anglo-culture-oriented educational processes are also changed, little of significant import will be achieved.
- There are two models of effective education for Spanish-cultured students: a bilingual/bicultural education model and a multicultural (integrated) model.
- The question of school desegregation is subsumed under the more general issue of providing quality education for Spanish-cultured students, and desegregation is only one means to attain that end.
- The Puerto Rican and Mexican-American communities have differing views toward desegregation: the former view problems related to segregation, integration, and/or discrimination as emanating from language, culture, and socioeconomic-status (SES) biases rather than from racial differences, whereas the latter see them as emanating from many factors, including race. The former view desegregation of schools as secondary to the need for quality education, whereas the latter feel that desegregation would improve the quality of education provided their children. And the former feel particularly strongly about retaining elementary school children in their neighborhood regardless of the school’s
ethnic composition, whereas the latter feel that balancing pupil population ratios will lead to improved understanding between the differing cultures involved.

- The Puerto Rican and Mexican-American communities seem to agree on the following desirable means to improve the quality of education of their children: the implementation of bilingual/bicultural curricula of instruction; greater representation of minority persons at all levels of the educational system (teachers as well as administrators); the use of tests and other teaching materials that reflect ethnic backgrounds and cultures; and supportive services as well as extracurricular activities which reflect the multi-ethnic composition of the school.

- The Puerto Rican and Mexican-American communities agree on the desirability of the following educational outcomes for their children: the learning of English and the maintenance or learning of Spanish; the development of a more positive self-concept; good preparation in mathematics, science, and language arts; educational programs that promote Spanish culture and history; and educational programs for all children that foster the notion that linguistic/cultural differences are just differences, not inequalities.

- The Puerto Rican and Mexican-American agree that the best means for achieving these educational outcomes are to (1) restructure the curriculum, supporting materials, and instructional staff so that all non-English speakers can be taught English and content or core courses in their dominant language, at least until they become proficient in English; (2) place non-English speakers in regular classes only after it has been verified, through valid testing techniques, that the student has an adequate knowledge of English; (3) establish bilingual/bicultural programs as language and transition programs; (4) establish minimum language (Spanish) and cultural (Mexican-American/Puerto Rican) requirements for qualifying teachers to teach Spanish Speakers in both the early and later grades; (5) assure minority group representation in the administration, management, and instructional staff of schools where minority children are present to serve as models; (6) develop special tests to measure the progress of non-English speaking students in learning English; (7) promote greater parent involvement in the education of their children; (8) implement flexible and innovative teaching techniques; and (9) assure that minority children are informed as to their culture, heritage, traditions, and folklore by using community resources.

The report also contains specific recommendations as to the selection of a Puerto Rican and Mexican-American sample and recommendations as to how the data can best be collected from these two communities.

OVERVIEW OF BILINGUAL/BICULTURAL EDUCATION AND IMPLICATIONS FOR RESEARCH

On January 21, 1974, the U.S. Supreme Court unanimously ordered the San Francisco School District to provide special instruction to Chinese students who do not speak enough English to understand regular classroom proceedings. The Supreme Court ruled that Chinese-speaking pupils instructed as if they were native speakers of English are now "effectively foreclosed from any meaningful education." This landmark decision, which will in part determine whether certain public school districts will be eligible for federal funds, serves to punctuate the importance attributed to bilingual/bicultural education by Mexican-American/Puerto Rican com-
munities as evidenced in the Development Associates report. Since the focus of this study is on the impact of school desegregation, it is impossible to do a comprehensive study of bilingual/bicultural education, although such a study is sorely needed. We will discuss here some of the important questions at the crossroads of desegregation and bilingual/bicultural education and how they will be approached in this study.

Cohen (1972, p. 33) defines bilingual education as "the use of two languages as media of instruction for a child or group of children in part or all of the school curriculum [and] . . . usually implies that more than just language is being taught in the second language." This type of educational model is to be contrasted to a monolingual program where children are taught through the medium of a second language. Cohen (1972) contrasts a variety of models of bilingual education. One model calls for repeated teaching of the same subject matter in both languages; another, an alternate-days program, involves teaching a subject matter in one language on one day and then continuing on to new content in that subject matter in the other language on the following day; a third model requires that a bilingual teacher give a lesson in both languages simultaneously, translating from one language to the other; a fourth model requires some subjects to be taught in one language and the rest in the other language; and other models begin instruction in one language, usually the child's native language, with the intent of switching to a second dominant or official language later. There are many other types of bilingual programs, which cannot be discussed here (see Cohen (1972) for additional references).

Bilingual education is based on the premise that children who are not native speakers of English are best taught, at least partly, through the medium of their own language. The theory holds that it is easier for the child to initially map skills learned in school, such as reading, onto an already acquired language system and later to transfer to a second language than to concurrently learn a second language and school skills. However, as Cohen (1972) notes, bilingual education used as a stopgap until the second language is learned reflects an assimilationist philosophy. A pluralistic approach would encourage that the first language be maintained because of its intrinsic value.

The bicultural component in bilingual/bicultural education stems from a pluralistic viewpoint which considers the various languages and cultures found in the country to be a national resource to be conserved. Bicultural education is also thought to benefit the minority child by minimizing the shock of being placed in a strange school environment with a foreign language and different cultural values, by augmenting his self-esteem or personal worth, and by helping him to establish a habit of academic success. Nevertheless, not all bilingual/bicultural educators, or sociolinguists and psycholinguists, espouse these assumptions.

Engle (1973) has carefully documented the major controversies in bilingual/bicultural education and has reported on twenty-five studies performed in various locations around the world. Of these she found only seven that were truly experimental in that variables were controlled, a comparison group was selected, and data were gathered systematically. Of the seven, only four reported results. These were a series of studies conducted by Ramos, Aguilar, and Sibayan (1967) in the Philippines; a study of Valencia (1971) in Grants, New Mexico; a study by Modiano (1968) in the Chiapas highlands of Mexico; and a study by Ladefoed, Glick, and Crisper (1971) in Uganda. All of these studies focus on comparing various types of bilingual programs. Another approach in evaluation consists in comparing a bilingual program with monolingual programs. Lambert and Tucker (1972) and their colleagues in Montreal have followed a group of middle-class English-Canadian children studying through the medium of French with both a monolingual English-Canadian and
a French-Canadian control group. Cohen (1972) compared Mexican-Americans in a bilingual program with those in a regular monolingual Anglo curriculum.

As Engle (1973) shows, the findings from all of these studies are not unequivocal and are mostly unreplicated. The Ramos et al. (1967) study showed effects of teacher training; the Valencia (1971) study showed gains in achievement; the Ladeboged et al. (1971) study suggested that teachers were more important than language; and the Modiano (1968) study showed positive effects of beginning instruction through the first language. In addition, the Lambert and Tucker (1972) longitudinal study showed that under certain conditions, instruction through a second language over a long period of time produces children who perform as well as their first-language peers and in most areas as well as their second-language peers. The Cohen study demonstrates promising results in northern California in a short-term evaluation of a bilingual program.

However, the instruction of Mexican-American and Puerto Rican minorities in regular Anglo classrooms has been a failure by all accounts. The question for research is to pinpoint the cause of the problem. Language, it seems, is not in and of itself a sufficient explanation for the lower achievement of the Spanish-cultured students. The Montreal studies of Lambert and Tucker (1972) show that under favorable conditions children may learn a second language and also learn through the medium of a second language. However, this is a case where the children of a dominant culture learn the language of a minority group. The reverse does not seem to hold. Consequently, the bilingual/bicultural education sought by the Mexican-American and Puerto Rican communities may be a solution to the failure of education for these communities. Alternative hypotheses as to the failure of the educational process for Spanish-cultured children should also be considered. It may be that better prepared and more sensitive teachers who do not have low expectations and negative stereotyped views of the children they serve may produce results better than or equal to those produced by bilingual/bicultural education programs.

A review of the bilingual/bicultural education and Engle's (1973) report suggests some of the important questions concerning bilingual/bicultural education that should be studied, but cannot be dealt with by this study, because they necessitate the systematic experimental manipulation of variables:

- The transfer of reading and other skills from one language to another.
- The most appropriate age to introduce a child to a second language.
- The duration and intensity of instruction in both the first and second language to attain prespecified levels of achievement.
- The best instructional method for teaching a second language.
- The impact of teacher training, and teacher attitudes toward the nondominant language and minority child, on the minority child's academic achievement.

Although a majority of the Spanish-cultured minorities espouse a pluralistic model of education, it is most likely that the introduction of bilingual/bicultural education programs is a segregating experience for children of these minority groups. Bilingual/bicultural programs which begin teaching through the Spanish language do not usually have Anglo children participating, although there are exceptions. There are several important questions that can be answered within this research:

- Do Mexican-American and Puerto Rican children who are being instructed through a segregated bilingual/bicultural program perform better on English and Spanish language and other measures than children in a desegregated bilingual/bicultural program?
• Do Mexican-American and Puerto Rican children in either segregated or nonsegregated bilingual/bicultural programs perform better on English and Spanish language and other measures than children who attend segregated or desegregated programs where the medium of instruction is English? These questions necessitate the development and administration of a Spanish-language achievement instrument. The instrument should measure the ability to understand, speak, read, and write Spanish. Not all Spanish-surname children speak either Spanish or English. It is thus necessary to develop a screening instrument to ensure that students are given a test of appropriate difficulty. The instrument should predict the student’s competence in both Spanish and English. Such an instrument is given in a supplementary report.

Research suggests that motivation is an important predictor of success in learning a second language. Gardner and Lambert (1972) suggest that the motivation for learning a second language might be either integrative or instrumental: A person with integrative motivation would be one who learns a second language in order to become a member of another ethnolinguistic group, to share in its culture, and in some way to be similar to members of that language community. An instrumentally oriented person would be one who would learn a second language in order to gain social recognition or economic advantages through the knowledge of that language. Neither of these two orientations to second language necessarily implies either an assimilationist or a pluralistic philosophy. For example, a native speaker of Spanish in a pluralistic society might wish to learn English in order to switch between his own culture and the Anglo culture under various social conditions.

The supplementary report gives attitude scales that measure the child’s motivation to learn English and Spanish. Also included are scales intended to assess teacher attitudes toward the value of learning Spanish and English for Spanish-cultural students, and the value of learning Spanish for Anglo children. In addition, the teacher questionnaires will ask teachers about the existence of bilingual/bicultural programs in their school and about their competence in speaking, understanding, reading, and writing Spanish. Parents will be queried about the value of their children learning Spanish and English.

IMPACT OF SCHOOL DESEGREGATION OF MEXICAN-AMERICANS AND PUERTO RICANS

Background

This paper focuses on the Mexican-American and Puerto Rican communities by reviewing educational objectives as generally perceived by the members of each group, and outlining their broad beliefs as to how desegregation does—or could—affect the quality of education for their children. The paper also identifies and attempts to summarize their views as to how schools might be postured to operate a more effective desegregated environment. It further attempts to identify and summarize these groups’ thoughts as to those programs they perceive as being most effective for educating their children. This paper also defines the sampling problems for each group and lists the most probable findings of a desegregation study in Spanish-speaking communities. Finally, the paper identifies issues, areas, etc., that should be included in the survey instruments and designs, as well as recommending dos and don’ts which should be considered if the study is going to attempt to adequately determine the impact of desegregated education in Spanish-speaking communities.
Methodology

The development of the issues cited in this paper involved several phases of activity. First, it was necessary to assure that the Development Associates project staff were well versed in the objectives of the Commission’s desired longitudinal study and that the Rand technical approach to study-instrument development and design was understood. To this extent, interviews were held with appropriate Rand and Commission staff members. Second, material related to desegregation and desegregation cases (particularly in Spanish-speaking communities) were reviewed. In addition, recent articles and publications focusing on educational opportunity were also reviewed. Third, a number of interviews were conducted with leading members of the Mexican-American and Puerto Rican communities in Los Angeles, San Antonio, New York, and Washington, D.C. The group interviewed included parents, educators, administrators, and community leaders with experience in both segregated and desegregated school environments. In addition, Spanish-speaking educators involved in efforts to integrate multicultural/multilingual activities in both segregated and desegregated school systems were interviewed. Finally, senior members of the Development Associates staff, experienced in bilingual/bicultural education and other evaluative studies involving Spanish-speaking people, were asked to provide summaries of their experiences and ideas with reference to the study at hand.

Recommended Use for This Issues Paper

While the issues cited in this paper, together with all other observations included, constitute a body of useful information for identifying the spectrum of opinion in Mexican-American and Puerto Rican communities, they do not, by any means, constitute an exhaustive study of the following:

- The educational objectives for their children
- The issues in desegregation relevant to Spanish speakers
- The process by which desegregated school environments can best be implemented in Spanish-speaking communities
- The most effective educational programs for Spanish-speaking children
- The problems faced in sampling Spanish minorities, their schools, and/or their communities
- The Spanish community views as to the effects of desegregation

The information contained herein can best be used to insure that variables in segregated and desegregated school models, the questions to be used to elicit information from Spanish minorities and their related communities, and the strategies to be used in developing study designs, instruments, and data analysis schemes all consider and include substantive issues of unique importance to Spanish-speaking parents, their children, and their communities. Figures 5.1 and 5.2 identify the segregated and desegregated school models upon which the consensus of Puerto Rican and Mexican-American community opinions appear to be based, and the models which these communities feel would be most effective in providing equality of educational opportunity to their children. The models shown graphically portray the general consensus of opinion in these communities that the mere mixing of differing racial, ethnic, and/or cultural groups as students does little to bring about the changes they feel are necessary to enhance the educational outcomes for their children. Spanish-speaking communities feel that unless the inherently Anglo-culture-oriented educational processes are also changed, little of significant import will be achieved.
Fig. 5.1—School models (as perceived by the Spanish-speaking)
Fig. 5.2—Effective school models (as perceived by the Spanish-speaking)
SPECIFIC ISSUES

Educational Objectives of Schools as Perceived by Spanish-Speaking Parents

Puerto Rican parents generally view problems related to segregation, integration, and/or discrimination as emanating from language, culture, and SES biases rather than from racial differences. This can be attributed to the fact that Puerto Ricans can be white, black, or racially mixed. As an ethnic group they cannot be identified solely with any one race. Therefore, the classical discrimination problems experienced by blacks apply only to those Puerto Ricans who are black, a relatively small segment of the minority. For this reason, majority Puerto Rican views on school desegregation and the educational objectives of desegregated schools are considerably different from those of blacks, and to a much lesser extent, from those of Mexican-Americans. Puerto Ricans view the objectives of desegregated schools as being related more to the betterment of the educational process in general than to the betterment of race relations and interpersonal relationships in particular.

Mexican-American parents generally view problems related to segregation, integration, and/or discrimination as emanating from many factors, including race. Their history in the West and Southwest supports the majority position that they have been discriminated against because they are "different," and the differences are defined by their racial characteristics (mixed Spanish/Indian), their ethnic language (Spanish), their culture, their socioeconomic status, and their passivity. Ironically, Mexican-Americans, about eight million of the ten million Spanish-speaking people in this country, seem to be the most abused of this minority simply because they are "Americans." Too often the word different tends to suggest less, which some interpret as meaning inferior. The term different in the American philosophy should be viewed as meaning a positive contribution, or strength, which enhances a unique, multicultural society such as ours, i.e., enriches our music, allows us to savor different foods, expands our literature, and/or brightens our language. In any event, Mexican-American parents, many of whom speak neither good Spanish nor good English, consider themselves victims of an educational system which attempts to Anglo-Americanize them while downgrading their ethnic background.

In designing a national research strategy one needs to be cautious with the usual assumptions made regarding the characteristics of Spanish-speaking people. Generally, the following might be considered to approximate the desired outcomes Spanish-speaking parents seek in the education of their children:

- Parents, particularly those from low income levels, tend to value highly the learning of English—sometimes to the point of discouraging or resisting the teacher of Spanish in the schools—the reason being that most of these parents have experienced years of prejudice and limited opportunity or embarrassment because of linguistic differences in the form of accents, grammatical errors, etc. Many parents, especially those who are first generation, have learned little or no English; this tends to emphasize their desire for their children to learn it.
- Spanish-speaking parents generally identify as a critical need the development of a more positive self-concept in their children. By this they mean that the child should feel equal to achieving any of the more advanced goals in our society to which he may aspire. He should not, they think, feel deprived or subservient simply because he speaks a different language, lives a different culture, or belongs to a family less affluent than the average Anglo family. Furthermore, parents feel that the children must be provided with coping skills over and above
reading, writing, and arithmetic if they are to adapt and survive in a dominant Anglo-American society. In expanding on this point they identify such skills as understanding the basic differences between ethnic cultures and the dos and don'ts relating to each, and developing the social poise and comfort necessary to blend into multi-ethnic societies. In terms of social development they desire the child to develop the ability to function effectively in the dominant society and to have the skills and confidence to compete for jobs which provide social and economic mobility. This engendering of healthy self-concepts and adaptive mechanisms represents to them a major consideration in evaluating the worth of the school system.

- Courses that will adequately prepare their children in mathematics, science, and language arts are generally valued highly by Spanish-speaking parents. These courses, they feel, provide the child with the knowledge and skills necessary to enter and complete higher education either at the college, paraprofessional training, or vocational training levels. In this respect, parents' key concern appears to be that the children have valid alternatives in terms of life careers available and that they not be prematurely categorized at an early age and because of cultural/language problems as belonging in vocational training groups.

- Spanish-speaking parents consider education leading toward acceptance of ethnic differences among persons of diverse backgrounds, race, customs, and social class to be a prime need in American education. In a desegregated school environment especially, the need to eliminate the following ethnocentric views regarding language, culture, and socioeconomic status becomes apparent: the primacy of language and culture in terms of being better, more respected, and/or more appreciated; the idea that if it's not Anglo it's not good; the lack of respect for or understanding of—and the desire not to respect or understand—anything alien; the tendency to measure worth in terms of miles of railroad track, number of telephones, and/or dollars in the bank; and the measure of individual value to society in terms of the affluent things the eye can perceive.

- Spanish-speaking parents feel that the reinforcement and incorporation of significant cultural experiences and symbols in the educational process are a means of facilitating learning in Spanish-speaking children and enhancing their perceptions of their backgrounds, experiences, and self.

Finally, the major concern of most Spanish-speaking parents probably lies in providing their children with the ability to obtain economic security. The school system, and the education it provides, is seen as the key hope for hurdling the barriers of discrimination. In this regard, a major objective of education as seen by parents is to provide their children with an opportunity to achieve a higher degree of economic success and security than they themselves have enjoyed. These economic considerations are probably the foremost aspirations of Spanish-speaking parents for their children. Thus, in assessing the impact of desegregation, or determining how best desegregated/integrated education can be achieved, there is a need to measure how well the above desired outcomes are being achieved and to define the processes with which the education of Spanish-speaking children is being attempted.

**Views of Puerto Rican Parents on Educational Objectives.** Puerto Rican parents view education as the essential ingredient for achieving success, and they define success as socioeconomic status. Their main considerations do not lie in identifying specific educational objectives. They will state broadly that they want their children to be "well educated" or "educated so that they will not have to do manual labor like me." It would appear that in broadly defining objectives and in
desiring a role in the development of specific objectives, they have discovered that
one can talk all day; but without sensitive school administrators, preferably Puerto
Rican, and viable techniques for including Puerto Ricans in the decisionmaking
processes, educational objectives relevant to the resolution of the educational prob-
lems of their children will never be adopted.

Educational objectives for schools as defined by Puerto Rican parents and educa-
tors directly involved in the educational process, however, are more specific. They
articulate basic concerns as to the outcomes Puerto Rican students encounter within
the American school system. Generally, these community members will summarize
objectives as follows:

- To assure that, if the student graduates from high school, he has twelfth-grade
  abilities in reading, mathematics, and other basic skills;
- To assure that the student is able to communicate effectively in English and
  maintain or develop Spanish-language skills;
- To provide educational programs which allow educational, social, and/or eco-
nomic options;
- To provide instruction which allows both social and economic mobility;
- To enhance self-concept, self-image, and sense of worth by teaching the history,
culture, and heritage of their island and its role in American history, as well as
that of other people and places;
- To enhance the students' ability to deal with different social and professional
  individuals with ease;
- To teach marketable skills, particularly at the high school and junior high
  school levels.

It is also their view that the above objectives can best be achieved with competent
multi-ethnic teachers, appropriate multi-ethnic curricula, necessary multi-ethnic
supportive services as identified through pupil diagnosis, other services necessary
to produce an educated student at each grade level, and a multi-ethnic management
and administrative staff.

Views of Mexican-American Parents on Educational Objectives. In the
eyes of many Mexican-Americans, the following has been said and written many
times, but it has yet to penetrate effectively the minds of Anglo-American leaders
and educators: Mexican-Americans have low educational levels (below either black or
Anglo), high dropout rates, and high illiteracy rates. Anglo lack of sensitivity to the
history, aspirations, and problems of Mexican-Americans and the circumstances
under which they are struggling for equality of consideration has "turned a spark
into fire." Today a growing militancy among these citizens threatens to overrun the
general mildness of this group of Americans.

Though extremes at each end of the political spectrum are prevalent in any
ethnic group, these extremes today have considerably more visibility in Mexican-
American than in Puerto Rican communities. Why?

Mexican-Americans have suffered a crisis of identity for decades. This diverse
group—some indigenous to our land mass for thousands of years, others who arrived
before the pilgrims, some who represent second, third, or fourth generations, and
still others recently arrived—has been generally viewed as a homogeneous group,
and often as undesirable aliens, in the West and Southwest. On occasion they have
been robbed of their lands as well as their dignity; they have been vilified and
discriminated against for hundreds of years; they have been denied both the heri-
tage of their Spanish/Indian culture and the freedom to adopt a foreign culture. Is
it any wonder, then, that they suffer a crisis of identity? The Hispanic (Mexican)
American, whether he calls himself a Spanish-American, a Mexican-American, or
a Chicano, has encountered abuses and lack of opportunity to the point where he has become angry. He has begun to insist on changes that will improve his way of life, educationally, economically, and in the Anglo society. Like other minorities, he is in search of upward mobility, but unlike other Americans, his progress appears to him to be slow, at the very best.

Unlike other Spanish-Americans, the Mexican-American finds himself without a true identity, without a tie to a place or a country he can return to if he wishes, or if he encounters difficulty in the United States. Whereas speaking poor English is unacceptable when you are a Mexican-American, speaking poor English is often "charming" when you are a Central or South American. While a Mexican-American continues to have difficulties with English, he at the same time either has never learned Spanish or has lost his proficiency in it (Salazar 1970). The younger generation, including many of the most militant Chicanos, often have difficulty in communicating in Spanish. Thus, the Hispanic Mexican may find himself semiliterate in two languages, but rarely sufficiently proficient in either English or Spanish to successfully compete with Anglo Americans or Mexican nationals. After more than 400 years of living in the same North American community, many Mexican-Americans find themselves strangers en su casa (in their homeland).

Community Views as to How Desegregation Impacts on Quality Education

In the search for equal educational opportunity for their children, Spanish-speaking parents (Mexican-Americans in particular) have come to realize that segregation of minority children (in substandard schools), for whatever reason, presents a considerable and unfair barrier to both academic and economic achievement. Primarily to eliminate these barriers, but with the thought that desegregation and eventually integration would greatly promote interpersonal relationships, thereby giving rise to better understanding and acceptance between ethnic groups, Spanish-speaking communities have adopted the desegregation concept in an attempt to bring about more effective and equal education of and better understanding for their children. To some extent, but not nearly as pronounced as in the black community, Mexican-Americans also desire some involvement in the management and administration of the schools serving their communities—primarily through certification and appointment of Spanish-speaking officials.

Effects of Desegregation as Viewed by Puerto Rican Parents. Until January 1974, New York schools had not been the subject of a desegregation decision involving Puerto Ricans. At that time a suit filed by the NAACP led to a decision ordering a community school district in Coney Island, New York, to present a plan that would balance the student population to reflect the Anglo, black, and Puerto Rican population ratios prevalent in the total community served. This decision has caused a significant dialogue within the Puerto Rican community with reference to desegregation and the effect it will have on quality education for them.

Puerto Rican parents and educators generally view desegregation of schools as secondary to the need for quality education. They desire curricula, staff, and educational services that are responsive to the diagnosed needs of Puerto Rican students while introducing them to new cultural and social experiences. Whether the school reflects an ethnic balance or not, Puerto Rican communities want effective delivery of educational services. For example, a class-action suit filed by ASPIRA\(^1\) against the

\(^1\) The first private educational agency serving the needs of over 3000 young Puerto Ricans who aspire to professional and technical careers by means of college.
New York Board of Education complains about the failure of the board to provide equal educational opportunities to Puerto Rican students, not about the ethnic isolation of the pupils.

With reference to quality of education, Puerto Ricans feel that desegregation will have an adverse effect on school achievement, motivation, and ethnic relations. Opinion is particularly strong about retaining children in elementary schools located in their neighborhoods, regardless of the school's ethnic composition. Opinion is mixed on balancing pupils at the junior high or high school level. The opinion that desegregation would have an adverse effect on the quality of education derives from the view that the present school system is failing to meet the needs of Puerto Rican students, particularly in the area of language and supportive services. To balance the schools would, they believe, increase the need for delivering educational services appropriate to the new student body, thereby deteriorating the capability to meet Puerto Rican needs further, since the staff would have to spread its services among a greater range of ethnic differences. Puerto Ricans argue that whether schools are segregated or desegregated, integrated school programs (for which the curriculum, staff, teaching techniques, supportive services, and materials are all multi-ethnic) would increase both motivation and academic achievement. The present problem, in their opinion, lies in the school's failure to restructure its services to meet the diagnosed needs of all the students. In particular, there is a need for bilingual programs (English as a second language); for teachers with which Puerto Rican students can identify and communicate; for texts that reflect multi-ethnic backgrounds and cultures; and for supportive services that recognize differing cultural situations. These, they believe, have been largely ignored and the results are predictable: low achievement scores, high dropout rates, few interpersonal relationships, and low expectations. Integration of the educational program, rather than desegregation of the school, would provide the Puerto Rican child with the real services that he needs.

Even from the viewpoint of school administration and policy-making, Puerto Rican parents foresee increased problems. They base this opinion on what they perceive as impacting on the motivation for change within the school system. Since most key positions are held by non-Puerto Ricans who are little motivated to initiate new programs or alter school policies, they see little or no opportunity for substantive changes to meet the educational needs of the Puerto Rican community. This, they feel, is severely aggravated by the resistance of the United Federation of Teachers to increasing the joint UFT-Board of Education recruiting and certification efforts by allotting more funds or to eliminating antiquated and obsolete examination instruments, or to implementing educational program integration activities, all of which hamper the efforts of Puerto Rican parents to alter school programs. Finally, they feel that the small number of Puerto Rican teachers (400) currently in the system (parity would mean approximately 10,000 Puerto Rican teachers) will make it extremely difficult to staff those programs they feel are necessary.

Effects of Desegregation as Viewed by Mexican-American Parents. Mexican-Americans generally feel that desegregation would improve the quality of education provided their children. This is particularly true, they feel, if desegregated schools are reinforced by implementation of bilingual/bicultural or other special educational programs addressing the specific needs of Mexican-American students. Complaints filed in the Southwest have attacked the segregation of Chicano/Mexican-American pupils in "Mexican" schools or their isolation in schools within a local educational area. Mexican-Americans argue that these conditions do not make for equal educational opportunity, particularly as regards equal use of tax dollars for staff, supportive services, and other essential ingredients of the educational process.
The Chicano/Mexican-American community appears to feel that balancing pupil population ratios will lead to improved understanding between the differing cultures involved. They feel that increased mixing of Anglo and Mexican students will provide Spanish speakers with greater motivation for, and increased contact with, the dominant language (English) in both structured and unstructured situations. They point to poor English language arts achievements in schools where Mexican-American pupils are isolated from English-speaking pupils.

The attitude of Mexican-American parents toward school desegregation is summed up by the overwhelming approval they have given to sending their children to desegregated schools. For example, in one school district pupils were given the opportunity to choose which school they would attend. Every Mexican-American child chose to attend an Anglo school. As a result, the school district desegregated all schools in its district, thereby achieving ethnic balance. However, the Mexican-American community tempers this feeling by expressing the thought that desegregated schools will improve the quality of education only to that extent to which the school system is restructured to address the specific needs of Mexican-American students. Thus they feel that the degree of success obtained will be proportional to the manner in which the educational process is modified to reflect multicultural concepts in its day-to-day operations.

**Spanish Community Views on How a School Should Be Postured to Implement and Operate a Desegregated Educational Environment**

Spanish-speaking communities recognize that desegregating a school should involve more than the mere mixing of the ethnic composition of the students. In their view, plans should be formulated which could change the total structure of the institution. They postulate that the need for change is based on a desire to achieve more effective outcomes and not merely to ease the political conscience of the power structure. They place much emphasis on the need for planning which will assure that, on desegregation day, the following has been accomplished:

- A detailed needs assessment for all ethnic groups included in the student mix has been finalized. Invariably, whenever a school is changed in any manner, the things that change are the outside trappings of the institution. Little in the manner of instruction, what is taught, how it is taught, etc., is changed. The Spanish-speaking communities feel that this must also change, particularly as it may apply in defining and meeting the educational needs of their children. So they recommend, very logically, that the schools find out what the problems are (determine the needs of the children) and then do some innovative thinking as to how these needs can best be met. For example, why teach children in languages they do not understand or are not functional in? Why not find out what these children’s most prevalent needs are and solve those problems first, before proceeding to other less prevalent needs? Or, why teach subjects with which children cannot identify, which are not relevant to them, or why not wait at least until they have a basic foundation either culturally or educationally?
- A curriculum has been developed which incorporates the remedial actions necessary to meet the demands of all ethnic groups; i.e., bilingual/bicultural education, black history and/or subculture, history of the Nisei before and during World War II, etc.
- Materials have been developed which complement and reinforce the multi-ethnic, multilingual, multicultural, etc., aspects of the new student mix. (Here the Spanish-speaking community is addressing all the things needed to support
new and innovative curricula and teaching techniques, be they books, tests, equipment, or facilities.)

- A multi-ethnic, multilingual, multicultural staff has been selected, sensitized, and trained. (Here the Spanish-speaking community expresses its desire to have balanced, aware, and adequately trained school staffs. These desires are generally based on what they perceive as a need for good models for their children, and the further need for staff members who can understand and relate to the problems and hurdles their children must overcome.)

- Innovative teaching techniques have been researched and those holding the greatest promise for meeting the deficiency needs of their children are scheduled for implementation. (Generally, the Spanish-speaking community sees these innovative techniques in such programs and curricula as bilingual/bicultural education, English as a second language, and cultural aspects of society expanded to include multiple cultures including their own.)

- Language, culture, and heritage enrichment programs have been considered, developed, and are available for those who desire them. (Examples of what can be done in this area are bilingual/bicultural theatre groups, lectures and demonstrations by community members with reference to arts and music, ethnic foods, derivation of holidays both national and religious, and visits to interesting and relevant ethnic places in the community.)

- Progress measurement tests have been developed so as to assure that non-Anglo ethnic culture or language pupils have an equal opportunity to shine and score well in their tests. This is very "horse-sensical" and yet we cannot identify where it has been done. We do know that the U.S. Office of Education has funded a project which is attempting to develop instruments for this purpose. Until such test instruments are developed, validated, and generally adopted, Spanish-speaking communities can be assured that their children will be tested at a tremendous disadvantage. Here, for example, are selections from a portion of the N.Y. Teachers Board of Examiners questionnaire used for the purpose of qualifying bilingual Puerto Rican teachers to teach in the New York City schools:

  - A ship's surgeon finds himself shipwrecked on the Island of Lilliput in the novel . . . (four choices of answer are provided)
  - "Fools rush in where angels fear to —_____." The word omitted in the above line by Alexander Pope is (1) walk, (2) stride, (3) tread, (4) go
  - All of the following were famous collaborators EXCEPT: (1) Rodgers and Hart, (2) Keats and Shelley, (3) Gilbert and Sullivan, (4) Wordsworth and Coleridge
  - An American writer of sea stories that are set in the South Pacific is: (1) Joseph Conrad, (2) Somerset Maugham, (3) William James, (4) Herman Melville

There are many other such questions, but the real question is, "What do these questions prove about a Puerto Rican's qualifications to teach Puerto Rican children?" Spanish speakers feel—rightly, we think—that this parochialism should be eliminated.

- Parents have been involved to assure that the home/school learning environments are mutually supportive and free of conflict. The so-called new math is a good example of the things that can happen in this area. How many parents—of any kind of ethnic group—can complement the school's efforts in this subject matter? Though an extreme case, this example points out the isolation that schools can foster by implementing ideas and notions without soliciting both the understanding and the efforts of parents in their home environment. Spanish
speakers want to get involved in the education of their children, even though they do not know how, because they feel a traditional sense of responsibility. It's family!

- An extracurricular program has been developed which assures that activities enhance interpersonal relationships between students and does not damage the sensibilities of any ethnic, cultural, or language group.

Any desegregated school that attempts to serve the needs of groups of Spanish-speaking students by delivering educational services without altering its policies, programs, staff, supportive services, pattern of extracurricular activity, or other components of the system will accomplish little in terms of changing student outcomes. Spanish-speaking communities consider the key item impacting on the effectiveness of desegregated schools to be the types of integrative activities undertaken at each of the administrative, teacher, pupil, and parent levels.

Techniques or Strategies Most Effective in Educating Spanish-Speaking Children

The need for employing different strategies in the education of Spanish-speaking children has its basis in the fact that the child may not have a thorough command of the English language upon entering school, or that he may not be prepared for total immersion in an Anglo(unfamiliar) environment, or that his parents’ SES may imply to him that his sense of worth should be somewhat less than that of his more affluent fellow students. Were these negative aspects of a school situation not present, there would be no need to devise techniques or strategies specifically geared to dealing with the needs of these minority students.

In the past decade Spanish-speaking parents, in their quest for equal educational opportunity for their children, have tended to gravitate toward the position that the most detrimental aspect of American education—the one contributing to the low academic achievements of their offspring—is the total Anglo-cultured orientation at the expense of everything Latin. Anglo-cultured curricula, supported by Anglo-cultured materials, espoused in Anglo schools by Anglo-cultured staffs, where progress is measured by Anglo-cultured values and standards, do, in fact, they believe, tend to limit both the educational development and the sense of worth of Spanish-speaking children. The roots of this problem go deeply into American history and the manner in which history and the people making it are presented to school children—almost to the exclusion of anything else. (For example, a Spanish-speaking adult remembered when he was a boy in school learning about English kings and queens in some considerable detail; he remembered being taught about great authors like Shakespeare and Robert Louis Stevenson; he remembered long discussions about great statesmen such as Washington, and Jefferson; he remembered being required to read the works of such essayists as Walton and Thoreau; he remembered enjoying such literature as Moby Dick and Swiss Family Robinson; he even remembered singing "God Bless The King." But he could not remember ever hearing a Spanish surname mentioned, or learning anything about Spanish kings except that they killed Indian chiefs, stole gold, suffered from syphilis, and had blood that did not clot. It was long after his ideas and thoughts about culture had been formed that he became aware of Cervantes, Spinoza, Segovia, Dali, and many other highly regarded, Spanish-cultured people, accomplishments, thoughts, and works—and more, that these persons and things were in fact worthwhile. He vividly remembered being in England during and after World War II and the disappointment he felt when the people and their culture did not live up to the many wonderful things
he had been taught to expect, and he could recall himself saying, "My God, are these the people on which I was taught the future of the world depended!?"

The parochialism of both our educational system and the people who administer and control it has become the center of conflict, and it is this parochialism that Spanish-speaking parents are attacking, not for their own sake, since they have already learned their lessons, but for their children. And if it is for their children, then of course the battle must be joined at the school level. That is generally the sense of what Spanish-speaking people are thinking and talking about. To the extent of defining what they should do to combat what they consider to be gross deficiencies, there is little or no difference between Mexican-American or Puerto Rican ethnic groups. Spanish-speaking people in general feel that school districts must reexamine classical educational programs and priorities with the goal of effecting those changes which will most enhance the effective education of Spanish-speaking children. To this extent, parents, educators, and community leaders are agreed upon and suggest the following:

- Restructure the curriculum, supporting materials, and the instructional staff so that all non-English speakers can be taught English and content or core courses in their dominant language, at least until they become proficient in English.
- Place non-English speakers in regular classes only after it has been verified, through valid testing techniques, that the student has an adequate knowledge of English (i.e., speaking, reading, and writing it).
- Establish bilingual/bicultural education programs as language and cultural transition programs in the early grades, and as language and cultural enrichment programs in the later grades.
- Establish minimum language (Spanish) and cultural (Mexican/Spanish/Puerto Rican) requirements for qualifying teachers to teach Spanish speakers in both the early and later grades.
- Establish minimum requirements so as to assure that bilingual program teachers are capable of teaching Spanish and English as a second language.
- Assure that members of the ethnic groups involved are included in the administrative, management, and instructional staff of the school so that they may serve as models to the minority students.
- Assure that counseling and other supportive services are available to Spanish-speaking students through staff members who, if not from the same ethnic culture, have empathy for and are sensitive to the culture of the students.
- Develop ethnic-culture-compatible screening tests which will identify the educational needs of Spanish-speaking students.
- Develop special tests to measure annual progress of non-English speaking students in learning English, as part of an accountability process.
- Involve parents in the schooling of their children so as to develop and utilize their skills in instructing their own children.
- Implement flexible and innovative teaching strategies and techniques.
- Integrate community resources into the instructional program to inform children of the culture, heritage, traditions, and folklore of multi-ethnic groups.

Generally, Spanish-speaking parents feel that the educational techniques and strategies suggested above should be integrated into the total school program at the age and grade level appropriate for maximum benefit to the student, regardless of costs, doubts, or previous inclinations of the management, administration, or instructional staffs, if the school is to do more than pay lip service to the ideas and the spirit embodied in desegregation/integration concepts.
CONSIDERATIONS IN SELECTING SPANISH-SPEAKING SAMPLES

As background for selecting Spanish-speaking samples and attempting to forecast probable sampling problems, the researcher needs to recognize that neither the Mexican-American nor the Puerto Rican segment of our minority population constitutes a monolithic group. On the contrary, there are wide intragroup differences among these people, primarily based on geographic location, rural versus urban settings, and socioeconomic levels. However, there is one common factor, equally applicable to both the Mexican-American and Puerto Rican segment of this population, which can be used as a foundation for a sample selection strategy: dissatisfaction with the American educational system. The common desire for multicultural/multilingual education for their children welds these communities together and crystalizes for them the need to do the following:

- Verify reliability of data-collection models, in terms of study criteria and actual circumstances prevailing at the time of field data collection, to insure that they reflect student composition or activities desired.
- Coordinate data-gathering activities with the Spanish-speaking communities involved. Organizations such as the GL Forum or LULACS for Mexican-Americans, and ASPIRA or the Puerto Rican Educators Association for Puerto Ricans, should be contacted for insights and assistance.
- Assure that data-collection questionnaires or instruments are available in both English and Spanish, as necessary.
- Assign data-collection team members that are familiar with the culture and fluent in the language spoken by the group being sampled. These teams must be sensitive to the culture, history, educational views, and other factors pertinent to the peoples of that group.
- Focus on student ethnic representation and then the school programs available for them (i.e., are schools offering unique federally or non-federally funded programs meant to impact favorably on Spanish-speaking students).

In designing data-collection instruments and defining items of data to be collected, the following should be included:

With relation to the school staff:

1. Determine the school staffs' ethnic composition. Generally, Spanish-speaking communities feel that effectively desegregated schools must develop balanced, ethnic-sensitive staffs both to provide the most effective instructional medium and to serve as models for future aspirations and expectations.

2. Determine preservice training program activities within the LEA to prepare teachers and other staff members for serving Spanish-speaking children. Many such students are taught by teachers with differing ethnic backgrounds. Whether or not they have received training in specific areas related to the target population's language, culture, socioeconomic factors, etc., may have a significant impact on the teachers' motivation and their achievements with the students.

3. Determine in-service orientation/training program activities. The extent of in-service and other training focusing on target student needs is useful in assessing the overall commitment to desegregated education. Note: experience has shown that often preservice and in-service training programs are ineffective because of inadequate scope, intensity, or format. Data gathered should tend to identify strengths or weaknesses in these programs.

4. Determine provisions for and the extent of minority participation in extracurricular activities. Such activities should be organized for interpersonal relationships
between both students and parents. Of prime importance is the assurance that activities are timed, located, and advertised so that they can be participated in by all students desiring to do so without regard to socioeconomic status, distance, or ethnic ostracism.

With relation to teachers:
1. Determine teachers’ Spanish-language competence (in speaking, reading, and writing). If this can be accomplished, it will provide information on the ability of a teacher to implement an instructional program appropriate for monolingual or bilingual Spanish speakers. These variables must be identified if accurate analysis of student outcomes and the reasons for them are to be obtained.

2. Determine what the teacher has done to adjust the classroom—and if necessary the curriculum—to meet the needs of Spanish-speaking students. Why is the desegregated class different? Or is there any difference? The mixing of ethnic groups (bodies) in a classroom accomplishes little to affect outcomes without concurrent changes in both the educational process and the materials used to support it.

With relation to curricula:
1. Determine the extent of any plans for the development of a culturally integrated Spanish-speaker/Anglo American curriculum, i.e., bilingual/bicultural education. Determine the extent to which any such plans have been implemented. Determine whether culturally integrated curricula are in use. Data on culturally integrated curricula are necessary to assess the school’s commitment to desegregated education, to evaluate its effect on minority and majority students, and to define the impact of desegregated education on students and their interrelationships. Just the mere mixing of bodies is not enough.

2. Determine whether a bilingual/bicultural education program exists. Knowledge as to whether bilingual/bicultural programs are in being, the grades at which they are offered, and the intent of the program (transition, enrichment, or maintenance of ability) provides a capability to measure impact on student self-concept and allows the evaluation of such programs in educating non-English-speaking or limited-English minorities.

3. Determine whether the school curriculum is being enriched by bilingual/bicultural extracurricular activities. This will provide greater insight as to the value of nonstructured culturally integrated activities on student outcomes.

4. Determine the extent of culturally integrated diagnostic counseling. The impact of diagnostic counseling on Spanish-speaking students and their parents can only be evaluated as to effectiveness if it is accomplished in a culturally integrated mode.

5. Determine the school’s capability to functionally determine the student’s dominant language (Spanish or English) and his capability to function in either of these languages. Effective desegregated education for Spanish-speaking students demands a determination as to the student’s capability to function adequately in the English language and if he cannot, that provisions be made for transitioning from Spanish to English without psychological impact. This variable will assist in assessing language dominance and competence and, correlated with test scores in Spanish, English, and self-concept, can reveal the impact of various educational treatments afforded the students.

6. Determine student attitudes toward their own and other cultures. Student attitudes toward cultures vary generally as a result of attitudes they are exposed to at home, at school, and in the community. Data on cultural attitudes in terms of acceptance, rejection, or shades in between can pinpoint the need for special educational programs or show correlations with achievement, motivation, and/or race relations.
7. Determine student attitudes toward assimilation. Both at home and at school the student is exposed to pressures that tend to push him toward abandoning his cultural background or, on the other hand, eradicating any nonpersonal cultural elements from his life style. Varying degrees of pressure come from his family, his peers, and his community. The school, as a socializing force, consciously or unconsciously treats him in a manner that could make him ashamed or proud of his background. Determining attitudes toward assimilation will provide useful information for evaluating the effectiveness of curricula, materials, or other school services reinforcing, destroying, or enriching a student's attitude toward his culture.

8. Determine Spanish-speaking student attitudes toward attending school with Anglo or black students. Because of the different culture and language backgrounds of Spanish-speaking students, different attitudes with regard to desegregation could be present. Anxiety or hostility because of increased tension, complicated by another language and life style, might affect achievement and interpersonal relationships. Data on these variables could provide insights into these areas.

9. Determine Spanish-speaking student attitudes toward graduating from school without achieving skills commensurate with the graduating grade level. Poor educational delivery systems often produce graduates who cannot function at the ability level indicated by their diplomas. As a result the graduates are severely handicapped in obtaining employment or continuing their education. Data on what students think about this situation could result in changes in counseling techniques, testing, and other services offered by school systems, thereby impacting on the effectiveness of segregated or desegregated school systems.

10. Determine Spanish-speaking student attitudes toward the academic tracking system. Placing students in academic, vocational, or technical tracks often closes options before students are aware that there was a choice. Steering students into one track or another based on the results of unreliable testing or because of inadequate elementary school instruction nearly always eliminates the possibility for full educational opportunity. Determining student attitudes toward this practice could provide valuable information on its acceptability and the awareness students have of its consequences.

**Selecting a Mexican-American Sample**

Of all minority ethnic groups in the United States, that group generally called Mexican-Americans is probably one of the most diverse. The term Mexican-American includes citizens who were indigenous to the U.S. mainland, citizens who settled in the United States as early as the fifteenth century, citizens who migrated from Mexico and have been in the United States for many generations, and citizens more recently arrived. As a group, they include persons who view themselves as Spanish, as Mexican, as something recently named Chicanos, and simply as Americans. But time of arrival or perceptions about themselves constitute only part of this diversity. Other factors include differences that occur because some were born and partially educated in Mexico, while others were born and raised in the United States (i.e., Texas, Colorado, Arizona, New Mexico, California, to name a few of the states where they abound). Rural or urban backgrounds further compound the diversity, and citizen/noncitizen status plus legal/illegal entry problems complicate the definition of Mexican-American.

Different degrees of identifying with Mexican culture are expressed by Mexican-Americans. These can range from those who passionately identify with Spanish/Mexican culture and its related values and customs, to those who have completely abandoned any contact with past language, culture, or customs. In some cases,
families have been found who represent both these extremes plus a middle course entailing varying degrees of interest in things Mexican, which oftentimes increases with age.

Similarly, the children of these parents also represent diverse backgrounds and viewpoints and (particularly those coming from families not recently arrived) a wide spectrum of socioeconomic levels, from the lowest to the highest extremes. Their parents may be migrant workers or doctors, but more frequently the former.

In selecting samples for participation in a national "Impact of Desegregation Study," prime consideration must be given to the diverse aspects of the Mexican-American population, as well as urban/rural orientation and geographic location. For example, Houston, San Antonio, Los Angeles, Denver, and Chicago, all urban/industrial centers where large segments of Mexican-American populations are concentrated, must contribute data to the study, as well as the more rural locations in Texas, Colorado, Arizona, New Mexico, and California. Schools where large segments of self-perceived Spanish (Northern New Mexico, Colorado, and the Santa Barbara, California, area), Mexican-American (general Rio Grande border areas), and Chicano (militant segments of the population often found among the younger people in the cities) elements of the population are enrolled must also contribute data; and schools with differing proportions of Mexican-American students must also be included in the study.

Collecting Data in Mexican-American Communities  In addition to the considerations and data items to be included as previously discussed, data-collection activities in Mexican-American communities must consider and include the following:

- Have the teachers undergone specific training for the purpose of allowing them to better relate to Mexican-American students (i.e., Mexican culture, history, heritage, and sociology courses)? Identifying training, or lack of training, geared to bridge the culture gap between teacher and student will provide data on the ability of the teacher to relate to and understand Mexican-American students.
- Has the school staff identified what education programs or activities are most apt to succeed in educating the Mexican-American students in their school? Have student needs been defined? If defined, are they being met? These questions must be pursued if impact on the quality of education is to be defined.
- Are migrant students provided for? What is the strategy? Is it effective? If so, why?
- What is the incidence of students changing schools within a neighborhood and district? Schools within a state? School systems (interstate)?

Probable Findings of a Desegregation Study in a Mexican-American Community  Predicting outcomes of anything has many inherent hazards. For this reason, we found great reluctance on the part of community leaders, parents, and school staff to prognosticate the probable findings of a desegregated school study. The consensus of opinion appeared to be that outcomes would be a direct function of the strategies in use at any particular school to resolve the problems and meet the needs of Mexican-American students. Specifically, we were able to identify the following feelings:

- A desegregation impact study will probably find that for Mexican-American students to obtain a quality education there will be a need for development and implementation of affirmative action plans/programs at all grade levels.
- There will be identified a very noticeable need to increase extracurricular activities related to minorities.
- It will be found that school systems are geared to meet majority needs and that the needs of Mexican-American minority students are not being considered.
- It will be found that in those schools that have a high Mexican-American student enrollment, the school facilities and equipment will not nearly equal those of schools enrolling large numbers of majority (Anglo) students.
- That busing, if implemented to desegregate schools, may give rise to more problems than it will solve.

Selecting a Puerto Rican Sample

It has been said that Puerto Ricans have two languages, two citizenships, two anthems, two loyalties, and two basic philosophies of life: those related to their island and those related to the United States.

Puerto Ricans do not come to the mainland to escape oppression, discrimination, or breakdowns in society. They come to the United States for two basic reasons: to find work and thereby achieve a more comfortable economic status, and to assure an adequate education for their children. They recognize the vast difference in available opportunities for work between an industrial metropolis like New York City and the work opportunities available on the island; they see the inordinate differences between salary levels for equivalent work here and at home. If their economic dream balloon is punctured before it gets too high off the ground, it is generally because of ethnic, cultural, and language differences, since they tend to be hard working and industrious. Often when this occurs, they return to the island.

On leaving his island, where even though he is poor, he has a sense of belonging, a sense of dignity, the Puerto Rican enters a hostile environment where he must come to grips with things he has never faced before. Two of these are discrimination and cultural alienation. He is not prone to adapt or assimilate well, primarily because to him his culture and heritage is something he enjoys, not something he has to be ashamed of; he accepts it, uses it, and enjoys it. The conflict between his social and cultural values and patterns and the new hostile environment does not begin to get through to him until he becomes aware that his values are a subject of ridicule by others. He begins to question his system of relating to culture, family, and friends; he begins to feel isolated and unsure. With time, family roles begin to shift; his children can communicate, whereas he can not speak good English; his wife begins to work, gain status, feel independent; unemployment or underemployment begins to erode his pride, his dignity, his machismo.

It is at this point that the Puerto Rican exercises his first option; he either stays or he returns to his island. If he stays, it is either with hostility because he feels trapped or with hope because he wants to join the mainstream of Anglo-American culture.

About 1 1/4 million Puerto Ricans living in New York City sent approximately 300,000 of their children to its schools. According to 1969 reading scores, at schools with 50 percent or more Puerto Rican enrollment, 86 percent of the fifth-grade children were academically below that level; in the eighth grade, 79 percent were below level and the figure had decreased only because some of the underachievers had dropped out. Over 143,000 Spanish-speaking students were having English-language difficulty. A survey indicated that 75 percent of these spoke Spanish at home.

The above situation is repeated in about 200 other LEAs throughout New York State. Though over 22 percent of the school population is Spanish-speaking, less than 1 percent of the schools’ staff are Spanish speakers. Screening and placement of students on the basis of their English-language proficiency, as recommended by
many studies, is completely ignored. Federally supported bilingual/bicultural education programs serve less than 1 percent of the students.

In selecting schools servicing Puerto Rican students for participation in an "Impact of Desegregation Study," the focus should be on New York City schools. However, schools in rural districts and/or small urban areas should also be included. Since the issue does not appear to be segregated or desegregated school populations, but curriculum, staff, and supportive services, schools that offer ESL training and bilingual/bicultural education, and that employ Puerto Rican teachers, aides, and counselors, should be included in the samples. A check with the New York Board of Education should be made to insure that the sample selected has validity, since the mobility of the Puerto Rican population can effect annual changes, which can in turn lead to the selection of incorrect samples. Schools with different proportions of Puerto Rican students should be included in the sample.

**Collecting Data in Puerto Rican Communities.** In addition to the considerations and data items to be included as previously discussed, data collection activities in Puerto Rican communities must consider and include the following:

- Consider that in this case segregated or desegregated schools are not only a function of racial composition but of ethnic composition also (i.e., Anglo, black, and Puerto Rican). Some districts will be segregated, others multi-ethnic, but usually black and Puerto Rican, not Anglo, black and Puerto Rican.
- Consider that in New York City the neighborhood concept can only be applied to elementary schools. One must shift to city or borough level when considering high schools, and to district level when considering junior high schools.
- The sample should include schools in both New York City and other parts of the Northeast. Though over 1 million Puerto Ricans live in New York City, another 1/4 million live in other metropolitan areas and small towns in the Northeast. To gain insight into activities for the total Puerto Rican population, an LEA in a non-New York City community should be included.
- The sample selected should include schools offering integrated (multicultural) education programs and schools not offering this type of educational program for Puerto Ricans. The basic issue in Puerto Rican circles is over the delivery of equal educational opportunity rather than achieving ethnic balance in a school or district. Data comparing these contrasting programs should provide information on their impact with reference to the desired educational outcomes.
- Assure that the content and quality of ESL curricula is determined and recorded. Since the mobility of Puerto Rican families (island to mainland) is considerable, many newly arrived children enter school without English-language competence to perform at that grade level in an American school environment. The remedy is bilingual education or ESL. In reality, ESL is the only choice, since bilingual projects generally operate in the early grades. The effectiveness of any ESL program must be evaluated if the worth of desegregated education is to be determined. Policies on the placement of these students, and the rationale therefor, should also be recorded.
- Review the ESL program qualifications of the instructional staff. This factor could well spell success or failure in ESL training.

**Probable Findings of a Desegregation Study in a Puerto Rican Community.** The basic desire of the Puerto Rican community is for equal educational opportunity for their children through a multicultural (integrated) educational process. In predicting the probable findings of a desegregation study in the New York City school community, most Puerto Rican parents and educators appeared to be agreed on the following:
- As a result of policy, procedure, and practice, the schools, their management, and their instructional staffs are not implementing learning experiences or supportive services capable of providing equal educational opportunity to Puerto Ricans. The schools simply are not considering the unique language, culture, and ethnic needs of the students.
- The study will find that Puerto Rican pupils attend segregated schools in relation to the districts, boroughs, and the city. The schools themselves do not reflect the ethnic balance of the communities they serve.
- Schools and learning experiences are not organized so that genuine integration can be a rational expected outcome.
- Affirmative action has not been taken to develop a plan that will alter the structure that now considers teacher needs more important than the needs of Puerto Rican students.
- Little or no action is being taken to assure that teachers understand their role in combating the effects of discrimination, racism, and inequality of opportunity.
- Puerto Rican teachers, guidance counselors, and administrators are seldom found in the school system. Though the ratio of Puerto Rican students is 22 percent, the ratio of these types of staff members is less than 3 percent.

**RECOMMENDATIONS**

- The selection of schools servicing Mexican-American or Puerto Rican students as part of the total national school sample should not be accomplished on a random basis. On the contrary, this sample should be carefully selected to assure that those characteristics relevant to such a study, as reflected by the geography, minority student ratios, perceived parent/community attitudes, and parent desires for the education of their children, are all present in the sample (see sampling plan for school/area/ethnic mix selection, Table 5.1).
- Field data-gathering activities in Spanish-speaking communities or schools, or involving Spanish-speaking parents or students, should be undertaken by bilingual, ethnically sensitive teams who have empathy for and are capable of understanding the people involved. This is generally considered to mean teams manned by people who have living experience in the environment in which the data gathering is taking place.
- The data-gathering efforts should not be limited to question-and-answer periods only. Incisive observation of school, student, and community activities over prolonged periods of time will reveal more and provide much more valid data than question-and-answer sessions.
- Synthesizing of data gathered for Mexican-American populations should not be accomplished without great insight into both the historical backgrounds and the basically ethnic/social differences between diverse groups included in the term Mexican-American. Similarly, synthesizing of data gathered for Puerto Rican populations should not be accomplished without the same considerations and insights.
- There are sincere viewpoint differences between Mexican-American Spanish-speaking groups and Puerto Rican Spanish-speaking groups, both internally between segments of each group and externally between ethnic groups. These differences should be recognized, understood, and provided for in both the study design and the consequent data-gathering and data-analysis efforts.
- Spanish-language instruments and questionnaires should be developed as necessary to insure both understanding and ethnic empathy and to recognize dialect differences in the Spanish spoken by each of the target ethnic groups.
Table 5.1

**GEOGRAPHIC AREA RECOMMENDED FOR SAMPLING MEXICAN-AMERICAN AND PUERTO RICAN STUDENTS**

<table>
<thead>
<tr>
<th>Recommended Areas Where Mexican-American Communities are Located:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1: The Rio Grande Valley Areas of Texas</td>
<td></td>
</tr>
<tr>
<td>Area 2: The San Antonio Area of Texas</td>
<td></td>
</tr>
<tr>
<td>Area 3: The Northern Area of New Mexico</td>
<td></td>
</tr>
<tr>
<td>Area 4: Los Angeles, California, Area</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommended Areas Where Puerto Rican Communities are Located:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1: The New York City Area</td>
<td></td>
</tr>
<tr>
<td>Area 2: Bridgeport, Connecticut, and/or Boston, Massachusetts, Area</td>
<td></td>
</tr>
</tbody>
</table>