ABSTRACT
        This research effort examines inequalities in
educational input resources among school systems in Texas and
California in light of the Rodriguez and Serrano court cases.
Low-income families in both states were found to be in districts of
low per-pupil-Expenditures and inferior educational services
primarily because they are located in districts with low property
valuations. Mexican-American pupils in Texas tend to be ethnically
isolated in low-wealth districts and have fewer educational resources
available to them than do Anglo pupils. Important differences were
found between Texas and California in regard to ethnic isolation.
Since Mexican-American pupils in California are not concentrated in
predominantly ethnic districts, not much interethnic disparity in the
distribution of educational resources among districts was found.
Black pupils in both Texas and California are concentrated in large
urban centers where expenditures are generally at or above the state
average. These findings, however, do not take into consideration cost
differentials between urban and nonurban areas and municipal
overburden. The hypothesis that black pupils in large urban districts
are disadvantaged by intradistrict inequalities is offered for
further research. (Author/IRT)

INEQUALITIES IN EDUCATIONAL RESOURCES:

THEIR IMPACT ON MINORITIES AND THE POOR

IN TEXAS AND CALIFORNIA*

By

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SOUTHWESTERN SCHOOLS STUDY

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ABSTRACT

Equality of educational opportunity has been a persistent but elusive
goal throughout the history of American public education. Toward
this goal, court cases have been directed during the past half decade
at inequitable school finance systems in most of the states; but
little empirical evidence has been presented in these cases on in-
equalities in the distribution of educational resources as they affect
minorities and the poor. This research effort attempts to fill this
gap by examining inequalities in educational input resources among
school systems in Texas and California. Official state education
agency data on all school districts in Texas and all unified districts
in California were obtained and combined with 1970 census data on
school districts in these states. Low-income families in both states
were found to be in districts of lower per pupil expenditures and
inferior educational services than high-income families primarily
because they are located in districts with low property valuations.
Mexican American pupils in Texas tend to be ethnically isolated in
low-wealth districts and have less educational resources available to
them than do Anglo pupils. District wealth, however, does not account
for the disparity in teacher qualifications among districts of differ-
ent ethnic composition in Texas. Important differences were found
between Texas and California in regard to the amount of ethnic isola-
tion. Since Mexican American pupils in California are not concentra-
ted in predominately ethnic districts, no much interethnic disparity
in the distribution of educational resources among districts was found.
Black pupils in both Texas and California are concentrated in large
urban centers where generally expenditures are at or above the state
average. These findings, however, do not take into consideration cost
differentials between urban and non-urban areas and municipal overbur-
den. The hypothesis that Black pupils in large urban districts are
disadvantaged by intradistrict inequalities is offered for further
research. The findings have important implications for further liti-
gation and legislation of educational reform. Further research needs
are discussed with regard to identifying inequalities in educational
inputs and determining the effectiveness of alternative educatinal
programs designed to close the achievement gap between ethnic groups.

PREFACE

The Southwestern Schools Study was initiated in 1972 and
funded by the Office of Education and the University of Texas at
El Paso. The project originated with a survey of 636 school district
superintendents in the Southwestern states of Arizona, California,
Colorado, New Mexico and Texas. Since sizable inequalities in educa-
tional opportunities were found based on ethnic composition of school
districts, the research was expanded to analyze in greater detail the
inequalities in Texas and California, where some 82 percent of all
Spanish-surnamed pupils in the Southwest are located. This second
phase of the research was funded by a grant from the National Institute
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cultural Development Research Association through the National Urban Coalition.

For his guidance and expert tutelage we owe Jose A. Cardenas,
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and former Director of Texans for Educational Excellence, our sincere
appreciation. He has always been in the vanguard of the untiring effort to
achieve equality of educational opportunity in the Southwest.

We are also grateful to Daniel C. Morgan, Jr., Associate Professor
of Economics at the University of Texas at Austin, for many hours of help-
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entailed very extensive data collection, processing and analysis, which
would not have been possible without a very competent staff of assistants.
Our appreciation is extended especially to Steve Bush and Kenneth Ramsey
for computer programing assistance, to Thomas Barley, Lawrence Kihnel, Jr.,
and Althea Ketchum their work on related projects, and to Maria Rayos and

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Mary Jan Milstead for secretarial assistance.

The data for California were obtained from the Childhood and Governance Project of the University of California at Berkeley. Our appreciation goes to W. Norton Grubb and Paul Goldfinger for making the data available and for assistance in preparing files for analysis.

Finally, we wish to thank Norval D. Glenn, Joseph R. Feagin, Daniel O. Price, and David Roth for their comments on an earlier draft of this report. While their advice has been most helpful, any errors in fact or interpretation are entirely our own.

November, 1974

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CHAPTER 1

INTRODUCTION

Equality of educational opportunity has been a persistent tho elusive goal throughout the history of public education in America. In pursuit of this goal, court cases have been initiated during the past half decade challengi n the constitutionality of school finance systems in most of the states. Very little empirical evidence, however, has been presented on inequalities in the distribution of educational resources as they affect minorities and the poor. The Southwestern Schools Study was initiated in 1972 in an effort to fill this research gap by examining inequalities in educational resources among school districts in Arizona, California, Colorado, New Mexico and Texas.

The first phase of the research, involving a questionnaire survey of 636 school district superintendents in the Southwest in 1972, was reported in a previous volume (Brischetto and Arciniega, 1973b). The research uncovered a clear pattern of inequalities based on both ethnic composition and income level of school district residents. From an analysis of school districts in the Southwest it was found that the greater the percent of Mexican Americans and of low-income persons in a school district: (1) the lower the property valuation per pupil; (2) the lower the per pupil expenditures; (3) the lower the teacher salaries; and (4) the lower the proportions of teachers and other professional staff with graduate degrees. The findings supported the results of an earlier study of inequalities among Texas school

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districts conducted by the U.S. Commission on Civil Rights (1972b).

This volume repor· the findings of the second phase of the Southwestern Schools St A more thorough analysis of Texas and California was made in this phase of the research, adding to previous research in a number of important ways. First, instead of drawing a sample of districts, data on all school districts in Texas and all unified districts in California were obtained. Secondly, the data on school districts were official statistics from the state education agencies. Finally, 1970 census data by school district boundaries were obtained and merged with the official school district data. With these data, quer ion not adequately addressed in the Rodriguez and Serrano cases were investigated. The findings indicate that some of the evidence presented in the Rodriguez case and accepted by the Supreme Court is incor-rect. It is not argued that the Rodriguez case would have resulted in a different opinion had the findings of this study been available. But since continued attention will be given to school finance reform in the state courts and legislatures, this evidence is offered to "set the record straight."

A TYPOLOGY OF INEQUALITIES IN EDUCATIONAL INPUTS

To place the research in the perspective of the larger picture of inequalities in educational inputs, a typology was developed which specifies three dimensions according to which input inequalities might be classified. The model distinguishes among (1) types of inequalities, (2) levels of inequalities, and (3) bases of inequalities (Brischetto and Arciniega, 1973b: 27-33).

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Types of inequalities

Four substantive types of inequalities in the model are derived from examination of the literature on equality of educational opportunity:

1. <u>Educational resources</u>. Inequalities may be found in the allocation of funds, facilities, and educational services, such as quality of teaching and adequate staffing. These are the tangible types of educational inputs which are more or less quantifiable.

2. <u>Educational practices</u>. Inequalities might also be identified in the manner in which educational services are <u>delivered</u>. Included in this category would be the manner in which both formal and informal norms are enforced, the curriculum and its application, tracking of students, counseling, testing, and the various systems of interaction between students and educators. These often involve the intangible aspects of the educational process which are frequently difficult to measure.

3. <u>Community influence</u>. A frequently ignored dimension of inequality in educational inputs is inequality of group influence in educational decision-making. For a variety of reasons, some ethnic groups participate more in the governing of the educational system than others. An ethnic community's influence in the educational system is indicated by its representation on the school board, in administrative positions in the school system, and in terms of parental input into the system.

4. <u>Segregation</u>. Since the <u>Brown v. Board</u> decision in 1954, racial segregation has been officially defined as an inequality <u>per se</u> in educational

opportunities. The same principal might be applied to the isolation of cultural minorities within schools and districts.

Levels of inequality

These various substantive types of inequality may be found on at least five levels, which constitute the second dimension of the typology:

1. Interstate. Inequalities can be found between states. Given the rights of states to govern and administer educational institutions, however, it is not likely that equalization of state differences will be forthcoming in the near future. Nonetheless, differences between states are sizable for each type of input inequality.

2. Interdistrict. Since the school district is the basic administrative unit in the U.S. educational system, differences between districts are most relevant to public policymaking. Since records of the allocation of resources are kept at the district level, interdistrict inequalities are also the most easily measured.

3. Interschool. Inequalities between schools might be found where district inequalities are not so clear-cut. While differences among schools within districts have been the concern of a few isolated studies, such inequalities need further examination.

4. Intraschool. There are also inequalities in educational inputs that can be found within schools. Differences in the quality of education provided occur between classrooms because of tracking or differences among

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teachers. These inequalities are not always uncovered in questionnaire surveys of school principals. Direct observation is often necessary.

.5. Intraclassroom. Even on the level of classroom interaction, inequalities can be observed. Within the classroom, children of different racial, ethnic, and economic groups may be treated differently. Like intraschool inequalities, differential treatment in the classroom may be observed more accurately through direct observation.

Bases of inequality

The third dimension of inequality in educational inputs consists of the characteristics on which inequalities are based. Three analytically distinct, although empirically overlapping, variables serve as the bases of inequalities:

1. Wealth. Inequalities might be found based on the wealth of districts, residents of a school district, parents of students in schools, social class groups within schools, and subgroups of students within classrooms.

2. Ethnicity. The quality of educational services might also vary according to the ethnic composition of state, district, school, classroom, or subgroups within classrooms. The research on inequalities in educational opportunities based on ethnicity is indeed scanty and thus has been chosen as the major focus of the present study. In its broadest sense, ethnicity would refer to distinct subcultural groups, including

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racial groups. As used here, however, the primary concern will be with two distinct cultural groups, Anglos and Mexican Americans. This distinction, of course, overlaps the dimension of wealth since Anglos are in an economically privileged position vis-a-vis Chicanos.

3. Race. Inequalities based on race have been the topic of numerous studies of educational opportunities. Differences in quality of educational services available to blacks and whites have been studied and restudied. Like ethnicity, race overlaps wealth in concrete cases. More blacks than whites are economically deprived.

If the three dimensions of inequality in educational inputs are combined, a sixty-cell model is developed for classifying inequalities. (See Figure 1-1.) The ideal would be to fill all sixty cells with examples of inequalities that exist in educational systems. A thorough examination of the many inequalities in education would include, for example, a study of inequalities in the quality of teaching based on the wealth of the state, as well as a study of inequalities in educational practices in the classroom based on the ethnicity of a pupil.

For the present study, however, no attempt will be made to fill all sixty cells of the typology with empirical findings. Such a herculean task would require a research effort even larger than the Coleman study. Instead, interethnic inequalities in educational resources, the more tangible inputs into the educational system, are examined among school districts

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FIGURE 1-1.   THE DIMENSIONS OF INEQUALITY IN EDUCATIONAL INPUTS *
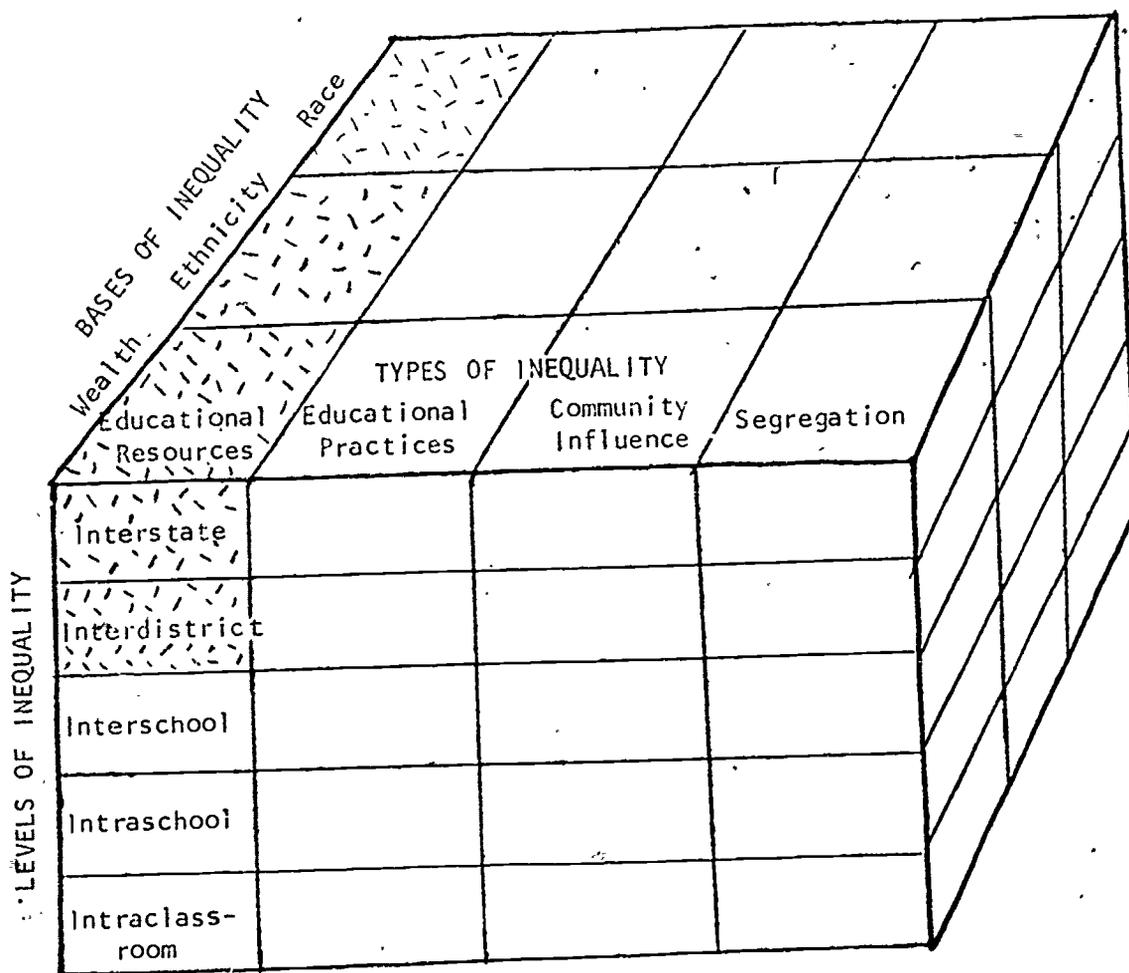
*Shaded part indicates the area of concern in this study.

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in Texas and California. The study attempts to determine whether and
to what extent inequalities' in educational resources exist on the basis
of district wealth, personal income, ethnicity, and race. (The shaded
area in Figure 1-1 indicates the inequalities that will be scrutinized
in the present study.)

What the three-dimensional typology so graphically illustrates
is the magnitude, complexity, and interrelated nature of inequalities in
educational inputs. One might expect that the empirical reality is that
these inequalities tend to compound. Thus, for example, a Chicano child
who is poor in Texas can expect to receive a quality of education which
is infereior to that of a wealthy Anglo child in New York in terms of
educational resources, educational practices, community influence, and
segregation imposed on his ethnic and economic group, not only by virtue
of the district in which he lives but also the school, classroom and
seat to which he is assigned.

The basic typology in Figure 1-1 provides a perspective through
which to view the present research with respect to investigations of other
types of input inequalities. Stated in general terms, the substantive
research question is: To what extent are disparities in the distribution of
educational resources related to ethnicity and/or wealth in the Southwest?
By focusing on the distribution of educational inputs, the research is of
necessity limited to considerations of distributive justice (or, more
correctly, injustice). Implied in this definition of the research problem
is a negative definition of equality of educational opportunity, namely:
If educational resources are distributed in such a manner as to discriminate

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against historically disadvantaged minorities, then there is <u>not</u> equality of educational opportunity. This should not be construed to mean that, conversely, equal resources per pupil necessarily fulfills the requirement for achieving equality of educational opportunity. Rather, the negative definition recognizes the fact that eliminating discriminatory inequities in educational systems is necessary, but may not be sufficient, for attaining equality of educational opportunity.

PUBLIC SCHOOL FINANCE AND THE COURTS

Traditionally, public school finance has been the almost exclusive realm of state legislatures. It was not until the late 1960's that inequalities in state school finance systems became the target of litigation. School finance reformers turned to the courts in order to bring the inequities of school finance schemes to the attention of their legislators and the general public with the ultimate aim of restructuring existing state educational finance systems.

The equal protection guarantee of the Fourteenth Amendment to the U.S. Constitution was recognized by the courts as applicable in the public education system with the <u>Brown v. Board of Education of Topeka</u> ruling in 1954, a racial discrimination suit. The Supreme Court declared that:

> . . . education is perhaps the most important function of state and local governments . . . in these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms (347 US 483, (1954)).

The <u>Brown</u> decision triggered a long line of school desegregation suits in

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the late 1950's and into the 1960's, making the Fourt enth Amendment the chief weapon for combating inequalities in educational opportunities (Vacca, 1974: 4-5).

But the specific strategy for initiating school finance reform suits based on the equal protection clause was probably first suggested by Arthur Wise in an article reporting the results of his doctoral research in 1965 (Berke, 1974; Wise, 1965; and Wise, 1968). Wise reasoned that because of wide disparities in the wealth of the tax base of local communities, the quality of a child's educational opportunity depends to a large extent on the "particular community in which his parent's economic capacity enables him to reside." By reviewing related Supreme Court decisions, he set out to demonstrate that "the absence of equal educational opportunity within a state constitutes a denial by that state of the equal protection of its laws." (1968: xvii).

REFORM VIA EQUAL PROTECTION

The Fourteenth Amendment to the U.S. Constitution states, in part, that "No state shall deny to any person within its jurisdiction the equal protection of the laws" (Cushman, 1966: 580). Legal scholars' interpretations of this clause have been voluminous. At the center of the legal theory undergirding the equal protection guarantee is the notion of "classification."

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The suspect classification doctrine

According to Shannon:

> essentially, the constitutional concept of 'equal protection' requires
> that the . . . state governments not discriminate unfairly between
> classes of people. It envisions all people being·treated by law in
> the same manner, unless a strong showing can be made that differential
> treatment is justified to achieve a valid and significant goal of the
> Nation or State (Shannon, 1973: 1, as cited by Vacca, 1974: 8-9).

If the basis of a classification is deemed by the courts to be

"arbitrary, capricious or unreasonable" then that classification is said

to be "suspect." A classification might be considered suspect if the

classification entails:

> (1) a political disadvantage of the class; (2) an inability to di-
> vorce oneself from the class; (3) a possible stigma implied by dis-
> tinctions based on the characteristics; and (4) a particular respon-
> sibility of society for the initial burden of the class character-
> istic (Villanova Law Review, 1972: 942, as cited by Vacca, 1974: 9).

Those who would qualify under these characteristics would be "legislative

minorities," certain groups in society which the courts recognize in need

of special protection because they are historically victimized by the

political process. These might include racial minorities, national

minorities, women, illegitimate children, and the poor--groups which to

a greater or lesser extent are systematically discriminated against and

powerless in the legislative process (Clune, 1973: 6). To date, only

race has been defined by the U.S. Supreme Court as a suspect classifica-

tion.[1] In cases involving violations of traditionally recognized funda-

mental rights, such as the right to vote, the high court has spoken in a

manner that suggests the possible inclusion of poverty or wealth as a

suspect classification (Carey, 1974: 10).[2]

If the court finds that a law creates a "suspect classification,"

then an unusually stringent judical standard, the "strict scrutiny" test,

might be applied requiring the state to show a "compelling governmental

interest" for its classification. The burden of proof in such a judicial

test is shifted to the state, which must demonstrate that the classifica-

tion is necessary to accomplish the purpose for which the law was created.

If, however, the classification is not found by the court to be suspect,

then a more lenient traditional standard of reasonableness, the "rational

basis" test, might be applied requiring only that the state show that the

law in question bears some reasonable relationship to the goal for which

it was created. Under the rational basis test, the person challenging

the school finance statute must bear the burden of proving that the law

is "arbitrary, capricious, or unreasonable" (Hogan, 1973: 23).

Education as a fundamental right

Identifying a suspect classification may in some cases be suffi-

cient to compel a court to apply the strict scrutiny test. But when the

classification also involves discrimination with respect to some funda-

mental right, the two factors in combination would provide the strongest

case for establishing a violation of the equal protection guarantee.

Fundamental interests or rights which heretofore have been identified by

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the Supreme Court include voting, interstate travel, and fair criminal

procedure (Coons, Clune and Sugerman, 1970: 342-343). Whether or not

education would qualify as a fundamental right was a question which the

courts were asked to address. Previous race discrimination cases had

stressed the importance of education as a basic right guaranteed to all

without invidious distinctions (Brown v. Board, 347 U.S. 493 [1954]).

But, of course, a strict constructionist view of the U.S. Constitution

prevailed in the Supreme Court's ruling in Rodriguez and education was

found to be "not among the limited category of rights recognized by this

Court as guaranteed by the Constitution" (U.S. Law Week, 1973: 4408).

In effect, the success or failure of school finance suits based

on the equal protection guarantee has been dependent on whether or not the

plaintiffs could establish the fact that the law creates a "suspect classi-

fication" or violates a "fundamental right." A review of the brief his-

tory of school finance reform litigation, up to and including the Supreme

Court decision on Rodriguez, follows. Since numerous cases have been filed,

only a sampling of the more important ones will be treated. The cases

prior to the Supreme Court's ruling in Rodriguez might be classified into

two broad types, those proposing an "educational needs" standard and those

suggesting a "fiscal neutrality" standard for judging a denial of equal

protection under law. (See: Carey, 1974, and Vacca, 1974.)

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The "educational needs" suits

The first wave of school finance suits, proposing a concern with "educational needs" as a standard for judging the fairness of school finance schemes, were largely unsuccessful. The most noted of these cases are <u>McInnis v. Shapiro</u>[3] in Illinois and <u>Burruss v. Wilkerson</u>[4] in Virginia, both class action suits brought in behalf of parents and students in 1968. In both suits, the plaintiffs argued that state system of financing education created disparities in educational expenditures and as such were not providing for the educational needs of all children in the state. Since the educational needs of pupils were not being met, they argued, the state school finance statutes were in violation of the equal protection guarantee of the Fourteenth Amendment to the U.S. Constitution. A three-judge District Court in each case utilized the "rational basis" test and promptly dismissed the complaint, suggesting that the educational needs criterion for funding education was not judicially manageable. No judicial precedent could be found defining equality of educational opportunity in terms of equal benefits from education by children with different <u>needs</u>.

The District Court in <u>McInnis</u> declared:

> The underlying rationale of the complaint is that <u>only</u> a financing
> system which apportions public funds according to the educational
> needs of the students satisfied the Fourteenth Amendment. . . .
> Without doubt, the educational potential of each child should be
> cultivated to the utmost, and the poorer school districts should
> have more funds which to improve their schools. But the allocation

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of public revenues is a basic policy decision more appropriately handled by a legislature than a court (293 F. Supp. [ND III: 1968] at 331-2).

On appeal to the U.S. Supreme Court, the decision of the lower court in McInnis was affirmed without review or opinion (Carey, 1974: 8). A similar conclusion was reached by the Burruss court, which stated that:

> . . . courts have neither the knowledge, nor the power to tailor the public moneys to fit the varying needs of these students throughout the state. We can only see to it that the outlays on one group are not invidiously greater or less than of another. No such arbitrariness is manifest here (510 F. Supp. 572 [WD, Va: 1969] 573-74, as cited by Vacca, 1974: 11).

It was evident that cases like McInnis and Burruss that the courts were not prepared to break ground in an area where educational policy-makers had only begun to pioneer--the difficult realm of deciding what the effect of different resources would be upon children of varied backgrounds.

The fiscal neutrality suits

While the first few legal battles attempting to achieve judicial relief under the equal protection clause had been lost, the war was far from over. The unsuccessful attempts in Burrus, McInnis, and similar cases led to the adoption of a new legal strategy utilizing a simpler judicial standard which was to prove to be somewhat more successful. The legal theory for the "fiscal neutrality" standard was developed by law professors John Coons, William H. Clune III, and Stephen Sugarman in an article in 1969 and elaborated in their book, Private Wealth and Public

(1970). Unlike the "educational needs" approach, the fiscal neutrality

approach offered a negative standard by which to judge equality of edu-

cational opportunity: "The quality of public education may not be a

function of wealth, other than the wealth of the state as a whole"

(Coons, Clune, and Sugarman, 1969: 305). And unlike the "educational

needs" approach, the fiscal neutrality standard does not address the ques-

tion of the relationship between resource inputs and educational outcomes.

It simply assumes that quality in public education can be measured in

terms of dollar expenditures (Coons, Clune, and Sugarman, 1970: 304).[5]

It is important to note that the fiscal neutrality principle does

not mandate equalization of either educational expenditures per pupil or

the quality of educational services offered. Rather, the judicial prin-

ciple requires that the state eliminate disparities in fiscal capacity to

raise educational revenue. Thus, equality of educational opportunity in

the sense of equality of educational offerings is not guaranteed under

the fiscal neutrality principle. As a moderate judicial standard, the

fiscal neutrality principle has elicited both praise from legal theorists

for its brilliant simplicity and criticism from educators for its limited

scope.[6]

With the introduction of the fiscal neutrality standard for judg-

ing violations of the equal protection guarantee a series of victories on

both the federal and state levels began to accumulate for school finance

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reformers. The first--and ultimately the most celebrated--of the fiscal neutrality suits was filed in state court in California in 1968.[6] In Serrano v. Priest the plaintiffs argued that the state's system of funding education, which relies heavily on the local property tax, causes substantial disparities in the amount of revenue available for education. Furthermore, the parents in poorer districts must pay higher taxes to obtain for their children the same or lesser educational opportunities as those in richer districts. The complaint was based on the equal protection guarantees of both federal and state constitutions, but is primary focus was on federal cases since the federal equal protection doctrine had been broadened in recent years (Tractenberg, 1974: 370). At first, a Superior Court in Los Angeles County dismissed the case; but on appeal, the California Supreme Court reversed the lower court's decision and returned it to a trial court with a declaration that the state's system of financing education invidiously discriminates against the poor since it caused "the quality of a child's education (to be) a function of the wealth of his parents and neighbors"[7] (Serrano v. Priest, 96 Ca. Rptr 601, 487 P(2d) 1241 (1971), at 1244).

The Serrano decision signaled a new trend in school finance decisions toward reliance on the "strict scrutiny" test requiring the state to show a compelling justification in maintaining its school finance statute. Since education was declared in these cases to be a "fundamental

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right" and, in some of the cases, wealth was found to be a "suspect classification," the "strict scrutiny" standard was applied. Within less than a year, school finance systems in Texas,[8] Minnesota,[9] Kansas,[10] New Jersey,[11] and Michigan[12] had been declared unconstitutional and similar cases had been initiated in more than 30 other states.[13] New York[14] and Indiana[15] were the only states in which school finance systems had been challenged unsuccessfully prior to the Supreme Court decision in _Rodriguez_ in March of 1973 (Tractenberg, 1974: 370-371). It was the hope of many school finance reformers that, prior to that inevitable time when the Supreme Court would rule on one of the school finance suits, sufficient victories would have accumulated in state and federal courts to provide the impetus for a favorable ruling by the high court. And, indeed, when the _Rodriquez_ case reached the Supreme Court during its 1972 term the record of lower court decisions favoring fiscal reform was an impressive one.[16]

But it must be remembered that this was not the same activist court that had expanded the equal protection doctrine in the 1960's. The Nixon appointees on the Burger Court were strict constructionists who no doubt shared the concern that application of the equal protection guarantee in the area of education would also lead to its application in the fields of health and welfare, causing a trend toward a general redistribution of social and economic resources. Furthermore, the court was

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being asked to break new ground in declaring district wealth (as distinguished from personal wealth) a suspect classification and education a fundamental right.[17] To complicate matters, there was some empirical evidence accumulating to indicate that the correlation between personal wealth and district wealth was not very strong in some states and even inverse in others, thus raising the question as to what effect a fiscal neutrality solution would have on the poor (Carey, 1974: 15-16).

With these factors operating, the Supreme Court by a slim one-vote margin passed down its decision in San Antonio I.S.D. v. Demetrio P. Rodriguez (411 U.S. 1 [1973]) declaring that the Texas system of school finance was not unconstitutional. It seems unlikely that the Supreme Court's decision will stem the swelling tide of reform that has built up over the last few years; but clearly the locus of the battle for fiscal reform has been shifted from federal courts to state courts and the legislatures. School finance suits in the post-Rodriguez period will most likely rely on state constitutional provisions. In the ensuing state court struggles there will no doubt be efforts to avoid the arguments utilized by plaintiffs in the Rodriguez case and attempts will be made to develop new legal strategies relying on different legal theory and a different type of evidence. Within two weeks after the Supreme Court's ruling on Rodriguez, the New Jersey Supreme Court volleyed with a decision in Robinson v. Cahill (62 NJ 473 [1973]) declaring the state's system of

school finance invalid on the basis of a state constitutional require-
ment that the state provide a "thorough and efficient education" to all
children. But there has also been a post-Rodriquez victory for fiscal
neutrality theory. A Los Angeles Superior Court on April 10, 1974, af-
firmed a previous ruling on Serrano mandating reform of the state's
school finance system on the basis of the state constitution's equal
protection guarantee.[18]

There remain a number of issues--both legal and empirical in
nature-- which the Rodriquez and Serrano cases did not adequately ad-
dress. The chapters which follow are concerned with an empirical ques-
tion not satisfactorily resolved in either the Serrano or Rodriquez
cases, the question of who are injured by the state school finance
systems?

FOOTNOTES

[1]See, for example, Loving v. Virginia, 388 U.S. 1 (1967), and
Brown v. Board of Education, 347 U.S. 483 (1954).

[2]The Supreme Court in Harper v. Virginia Board of Elections
indicated that "lines drawn on the basis of wealth or poverty, like those
of race,. . . are traditionally disfavored" (383 U.S. 663 at 668 (1968)).
An in McDonald v. Board of Election Commissioners of Chicago, the Court
stated: "A careful examination on our own part is especially warranted
where lines are drawn on the basis of wealth or race . . . two factors
which would independently render a classification highly suspect. . ."
(394 U.S. 802 at 807 (1969)). These cases are cited by Carey, 1974: 10.

[3]McInnis v. Shapiro, 293 F. Supp. 327 (ND Ill. 1968) affd. sub
nom. McInnis v. Ogilvie, 394 U.S. 322 (1969).

[4]Burrus v. Wilkerson, 301 F. Supp. 1237 (WD Va. 1968), 310 F. Supp.
572 (WD Va. 1969), affd. 376 U.S. 44 (1970).

[5]The cost-quality question, however, was raised by defendants in a
number of the fiscal neutrality suits and thus had to be addressed. This
was unfortunate for the plaintiffs since the weight of social science find-
ings, although far from conclusive, leans more toward support of the defen-
dants' arguments that inequality in educational resources do not have
sizable measurable effects on inequalities in educational outcomes.

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(See, for example: Coleman, 1966; Jencks, 1972; Mosteller and Moynihan, 1972; Mayeske, 1972; Averch, et al., 1972. But also see: Guthrie, 1970, Guthrie, et al., 1971, and U.S. Office of Education, 1970, for a review of studies which have found that inequalities in inputs do affect inequalities in achievement.) The net result of attempts to address this very sticky question was that the issue of what effects educational inputs have on educational outcomes was complicated by the various conflicting research findings and attention was drawn from the main issue of inequalities in the distribution of educational resources. The Supreme Court in Rodriguez relied on the social science evidence of Jencks (1972), for example, to provide one rationale for refusing to declare the Texas system of school finance unconstitutional. For further discussion on the legal strategy involved in the cost-quality relationship, see: Yudof, 1973.

[6]Serrano v. Priest (96 Cal. Rptr. 601, 487 P. 2d 1241 [1971]) has been referred to as the "most significant court decision in recent years affecting a state's program of funding the operation of its public schools" (Shannon, 1973: 1, fn. 14).

[7]An important distinction was not sufficiently made in the plaintiff's argument between the wealth of the school district and the wealth of persons in the district. A high correlation between district and personal wealth was assumed and no empirical evidence for this relationship was offered. Since the relationship between individual and district wealth became an issue in subsequent fiscal neutrality suits, district and personal wealth have been distinguished and the arguments focused on district wealth as a "suspect classification."

[8]Rodriguez v. San Antonio Independent School District, 337 F. Supp. 280 (WD Tex. 1971), revd. 411 U.S. 1 (1973).

[9]Van Dusartz v. Hatfield, 334 F. Supp. 870 (D Minn. 1971).

[10]Caldwell v. Kansas, No. 50616 (Dist. Ct. Kan., Aug. 30, 1972).

[11]Robinson v. Cahill, 118 N.J. Super. 223, 287 A.2d 187 (Law Div. 1972), suppl. op., 119 N.J. Super. 40, 189 A.2d 569 (Law Div. 1972), affd., 62 N.J. 473, 303 A.2d 273 (1973)

[12]Miliken v. Green, 389 Mich. 1, 203 N.W. 2d 457 (1972).

[13]For a review of school finance suits, see: U.S. Commission on Civil Rights, 1972d; and, more recently, Paul L. Tractenberg, 1974.

[14]Spano v. Board of Education of Lakeland Cent. School District #1, 68 Misc. 2d 804, 328 N.Y.S. 2d 229 (sup. Ct. 1972).

[15]Jensen v. Board of Tax Commissioners, 41 U.S.L.W. 2390 (Cir. Ct. Ind. Jan. 15, 1973).

[16]Some observers, however, have argued that the Rodriguez case arrived prematurely at the high court's bench and that some of the cases which were in progress in more than 30 states should have been allowed to develop and even improve on the record.

[17]By the time the Rodriguez case reached the Supreme Court, the fiscal neutrality argument had developed to an argument based on district wealth discrimination, not individual wealth discrimination. The earlier view (as expressed in the original Serrano brief) that poor people live in poor school districts had been brought into question by research in Connecticut (Yale Law Review, 1972). As a result, plaintiffs were relying on the reapportionment cases to serve as justification for extending equal protection to persons--rich or poor--who reside in poor school districts.

[18]The Serrano case had been remanded by the California Supreme Court to a lower trial court for consideration. The trial court had to decide on the merits of the case in light of the Rodriguez decision of the U.S. Supreme Court and a decision was returned on April 10, 1974, upholding the previous decision to declare the California school finance statute unconstitutional largely on the basis of violation of the equal protection clause of the state constitution.

CHAPTER 2

THE CASE FOR INEQUALITIES IN TEXAS

The role of social science evidence in the adjudication pro-
cess has always been rather ambiguous. On occasion the courts have
accepted without question social scientific research and theory; per-
haps more frequently, however, there has been skepticism about the
value of social science evidence in legal proceedings. This attitude
may be changing. In the last few years social scientific research
findings have increasingly been introduced as evidence in legal adjudi-
cation with regard to a variety of issues. One of the areas in which
social science evidence has been and will increasingly become important
is in regard to equalization of school finance systems in an effort to
attain equality of educational opportunity. The decision in 1973 by
the U.S. Supreme Court in San Antonio Independent School District v.
Rodriguez is a case in point. The court declared that the Texas system
of school finance, while admittedly inequitable, was not unconstitutional
and thus shattered the hopes of school finance egalitarians for a final
favorable judgment by the high court. This chapter re-examines some of
the Rodriguez evidence and introduces new findings on inequalities in the
Texas school finance system.

BACKGROUND OF THE RODRIGUEZ CASE

The Rodriguez case was first filed in 1968 with Demetrio P.
Rodriguez and fourteen other parents " on behalf of Mexican American school
children and their parents who live in the Edgewood Independent School
District, and on behalf of all other children who live in school districts
with low property valuations" (337 F. Supp. 280 (WD Tex. 1971)). The
plaintiffs argued that their children were not receiving educational re-

sources and services comparable to the more affluent districts since the state's system of school finance was largely based on property taxes within school districts. Relying upon the legal arguments developed in Serrano, they contended that the system of financing education in Texas was in violation of the equal protection guarantee of the 14th Amendment to the U.S. Constitution since the quality of educational services received was primarily a function of school district wealth.

The District Court's ruling

A decision by a three-judge District Court was withheld in 1969 "in order for appropriate legislation to be enacted not later than the adjournment of the 62nd Legislature" (337 F. Supp. 280 [WD Tex. 1971] n. 11). When the legislature failed to act, the District Court on December 23, 1971, decided in favor of the plaintiffs, declaring that "the current method of state financing for public elementary and secondary education deprives their class of equal protection of the laws under the Fourteenth Amendment to the United States Constitution." The main target of the Court's criticism of the current system was the local property tax:

> Within this ad valorem taxation system lies the defect which plain-
> tiffs challenge. This system assumes that the value of property
> within the various districts will be sufficiently equal to sustain
> comparable expenditures from one district to another. It makes edu-
> cation a function of the local property tax base. The adverse effects
> of this erroneous assumption have been vividly demonstrated at trial
> through the testimony and exhibits adduced by plaintiffs (337 F. Supp
> 280 [WD Tex 1971]).

According to the Court, the evidence demonstrated that for those districts which are property poor, tax rates were relatively high, but expenditures relatively low. The district court judges ruled:

For poor school districts educational financing in Texas is, thus, a
tax more, spend less system. The constitutional and statutory frame-
work employed by the State in providing education draws distinction
between groups of citizens depending on the wealth of the district in
which they live (337 F. Supp. 280 [WD Tex. 1971]).

The court applied the strict scrutiny test, since "more than mere ration-

ality is required . . . to maintain a state classification which affects

a 'fundamental interest', or which is based upon wealth" (337 F. Supp.

280 [WD Tex. 1971]).

The U.S. Supreme Court's ruling

The decision of the federal district court was reversed on appeal

to the U.S. Supreme Court on March 21, 1973. Mr. Justice Powell, deliver-

ing the majority opinion, disagreed with the district court on two very

basic issues: (1) whether the Texas school finance system discriminates

against a suspect class and (2) interferes with the exercise of a funda-

mental right. Powell concluded:

1. The Texas system does not disadvantage any suspect class. It
   has not been shown to discriminate against any definable class
   of 'poor' people or to occasion discriminations depending on the
   relative wealth of families in any district. . . .
2. Nor does the Texas school-financing system impermissibly inter-
   fere with the exercise of a 'fundamental' right or liberty.
   Though education is one of the most important services performed
   by the State, it is not within the limited category of rights
   recognized by this Court as guaranteed by the Constitution. . .
   (U.S. Law Week, 1973: 4408).

Having decided that education was not a fundamental right guaranteed

by the Constitution and that no unlawful classification existed, the high

court then applied the more lenient rational basis test to determine

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whether or not the school finance system in Texas was in violation of the equal protection clause of the U.S. Constitution. The court found that:

> The Texas system does not violate the Equal Protection Clause of the Fourteenth Amendment. Though concededly imperfect, the system bears a rational relationship to a legitimate state purpose. While assuring basic education for every child in the State, it permits and encourages participation in and significant control of each district's schools at the local level (U.S. Law Week, 1973: 4408).

SOME UNANSWERED EMPIRICAL QUESTIONS

In the opinion of the Supreme Court, the fiscal neutrality argument failed to give a "definitive description of the classifying facts or delineation of the disfavored class" (U.S. Law Week, 1973: 4412). From the decision of the District Court and the arguments presented by appellees, the Supreme Court identified three possible delineations of the injured class:

> The Texas system of school finance might be regarded as discriminating (1) against 'poor' persons whose incomes fall below some identifiable level of poverty or who might be characterized as functionally 'indigent,' or (2) against those who are relatively poorer than others, or (3) against all those who, irrespective of their personal incomes, happen to reside in relatively poorer school districts (U.S. Law Week, 1973: 4412-4413).

The Court was not willing to extend the definition of what constitutes a suspect class to include "all . . . children throughout Texas who live in school districts with low property valuations" (U.S. Law Week, 1973: 4413), the third definition. The legal precedent for identifying suspect

classification was sufficiently clear for cases involving race and there

were cases in which impoverished persons received special protection,

but no suspect classification had yet been declared for cases involving

district poverty. What was needed was evidence that the poor have been

injured by the system of school finance. As Justice Powell wrote: -

> Only appellees' first possible basis for describing the class disad-
> vantaged by the Texas school finance system--discrimination against
> a class of definably 'poor' persons--might arguably meet the criteria
> established in these prior cases (U.S. Law Week, 1973: 4413).

In Powell's opinion, appellees "made no effort to demonstrate that (the

Texas school finance system) operates to the peculiar disadvantage of

any class fairly definable as indigent, or as composed of persons whose

incomes fall beneath any designated poverty level" (U.S. Law Week, 1973:

4413).

Personal vs. District Wealth

The arguments in most of the fiscal neutrality cases had either

assumed a high correlation between district wealth and personal income or

considered the relationship irrelevant. In some of these cases, refer-

ence had been made to the injured class in terms of both geographic

boundaries (school district lines) and personal wealth; but since the

fiscal neutrality argument zeroed in on disparities in the fiscal capa-

city of school districts, not individuals, very little empirical evidence--

in most cases none at all--was presented demonstrating injury to poor

persons. There was, however, some evidence germane to Powell's second

definition presented in an affidavit by Joel Berke from a survey of 110 school districts in Texas. The findings concerning the relationship between district wealth, on the one hand, and personal income, percent minority enrolled and district expenditures, on the other hand, are presented in Table 2-1.

In the Court's opinion, however, Berke's study "found only a partial correlation between a district's median family income and per pupil expenditures." The data, according to Justice Powell,

> show only that the wealthiest few districts in the sample have the highest median family incomes and spend the most on education, and that the several poorest districts have the lowest family incomes and devote the least amount of money to education. For the remainder of the districts--96 districts comprising almost 90% of the sample-- the correlation is inverted, i.e., the districts that spend next to the most money on education are populated by families having next to the lowest median family incomes while the districts spending the least have the highest median family incomes. It is evident that, even if the conceptual questions were answered favorably to appellees, no factual basis exists upon which to found a claim of comparative wealth discrimination (U.S. Law Week, 1973: 4415).

The Court also noted the lack of a consistent relationship between percent minority pupils and expenditures, except "in the relatively few districts at the extremes" (U.S. Law Week, 1973: 4411, n. 38).

Without what it considered to be substantial evidence to indicate that poor or minority children live in poor school districts in Texas, the Court turned to a study by Yale Law students of school districts in Connecticut (Yale Law Journal, 1972). The study found that:

Although both median and mean family income correlate fairly highly

TABLE 2-1. MEDIAN FAMILY INCOME, PERCENT MINORITY PUPILS, AND
STATE AND LOCAL REVENUE PER PUPIL, BY EQUALIZED
PROPERTY VALUE PER PUPIL IN TEXAS SCHOOL DISTRICTS*

Market Value of Taxable Property Per Pupil	Median Family Income (1960)	Percent Minority Pupils (1960)	State and Local Revenue Per Pupil (1967-68)
Above $100,00 (10 Districts)	$5,900	8%	$815
$100,000-$50,000 (26 Districts)	$4,425	32%	$544
$50,000-$30,000 (30 Districts)	$4,900	23%	$483
$30,000-$10,000 (40 Districts)	$5,050	31%	$462
Below $10,000 (4 Districts)	$3,325	79%	$305

*Source: Affidavit presented to U.S. District Court in
Rodriguez (337 F. Supp. 280 (WD.Tex. 1971)) by
Joel S. Berke, as cited in U.S. Law Week, 1973:
4411.

with (district wealth), the correlation between poverty families and this expression of district wealth is not significant. Thus, the popular belief that the 'poor' live in 'poor' districts is clearly mistaken (<u>Yale Law Journal</u>, 1972: 1327).

Furthermore, the authors reported an "inconclusive" correlation between percent of families below poverty and per pupil expenditures (1972: 1329). They argued that if the mandate given by <u>Serrano</u>-type decisions to redistribute educational resources according to a district's property wealth were carried out, it would not help--and might .n hurt--poor families. From the Yale study, the Supreme Court concluded that:

Indeed there is reason to believe that the poorest families are not necessarily clustered in the poorest property districts. . . . Whether a similar pattern would be discovered in Texas is not known, but there is no basis on the record in this case for assuming that the poorest people--defined by reference to any level of absolute impecunity--are concentrated in the poorest districts" (<u>U.S. Law Week</u>, 1973: 4413-14).

Without any evidence that the Texas financing system discriminates against a definable class of poor people, the Supreme Court suggested that there was no suspect classification that could easily be identified in the case and hence the strict scrutiny standard of legal judgment could not be applied (<u>U.S. Law Week, 1973</u>: 4415).

A Post-Rodriguez rejoinder

A post-<u>Rodriguez</u> replication of the Yale study on Connecticut by economists Grubb and Michelson (1973) demonstrated that the Yale research was frought with methodological errors.[1] After correcting the mistakes in the analyses of Connecticut and conducting further comparative analyses

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of Massachusetts, Maryland, and South Carolina, Grubb and Michelson arrive at a conclusion quite contrary to that of the Yale researchers and the Supreme Court: "that the poor now tend to be in districts with relatively lower revenues and with relatively lower tax property valuation" (1973: 559).

RESEARCH HYPOTHESES

Still unanswered, of course, is the question of what sort of a relationship there is in Texas between the income of district residents and the revenues available for education. It is likely that the relationship between family income and school district wealth varies from state to state and that conclusions derived from empirical findings in one state cannot be automatically generalized to other states. Thus, as Wise so aptly advises post-Rodriguez litigants: "it is important for a court to have a clear picture of the facts in a particular state" (1973: 10). The purpose of the present research is to identify with greater precision the injured class(es) of persons in the Texas system of school finance. The empirical questions left unanswered in the Rodriguez decision by the Supreme Court thus become the hypotheses to be tested in the present research. The general research questions and their specific related hypotheses follow. The hypotheses are worded such that confirmation of them would indicate possible discrimination against three "classes":

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persons living in poor school districts, low-income families, and minority group members.

1. What is the relationship between the property value of a school district and the tax effort, the amount of educational expenditures, and the quality of educational servi es provided to pupils?

Hypothesis 1A: The greater the per pupil property value of a school district, the lower its educational tax effort.

Hypothesis 1B: The greater the per pupil property value of a school district, the higher the per pupil revenue and expenditures.

Hypothesis 1C: The greater the per pupil property value of a school district, the higher the quality of educational services provided to its pupils.

2. What is the relationship between the property value of a school district and the personal income and ethnicity of its residents?

Hypothesis 2A: The greater the per pupil property value of a school district, the higher the income level of school district residents.

Hypothesis 2B: The greater the per pupil property value of a school district, the less the proportion of minority group pupils enrolled.

3. What is the relationship between the income level of school district residents and the tax rate, the amount of educational expenditures, and the quality of educational services provided?

Hypothesis 3A: The higher the income level of school district

residents, the lower the tax effort for education.

Hypothesis 3B: The higher the income level of school distr t

residents, the higher the per pupil revenues nd expenditures.

Hypothesis 3C: The higher the income level of school district

residents, the higher the quality of educational services provided.

4. What is the relationship between the ethnic composition of

pupils ir a school district and the tax rate, the amount of educational

expenditures, and the quality of educational services provided?

Hypothesis 4A: The greater the proportion of minority pupils

enrolled in a school district, the higher the tax effort for education.

Hypothesis 4B: The greater the proportion of minority pupils

enrolled in a school district, the lower the per pupil revenues and ex-

penditures.

Hypothesis 4C: The greater the proportion of minority pupil

enrolled in a school district, the lower the quality of educational ser-

vices provided.

RESEARCH PROCEDURES

Since the Rodriguez case, new sources of data have been made

available that should shed some new light on the question of who is in-

jured in the Texas system of school finance. U.S. Census data have been

aggregated for the first time by school districts. Socioeconomic

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indicators, such as income level of district residents, are now available
on school districts. These data can be used to test some of the empirical
questions left unanswered in the Rodriguez case.

Data acquisition

Census tapes on school districts were combined with data from a
number of other sources to build a data base on Texas school districts.
Data germane to the present analyses were mainly from six sources: (1)
census data on income and Poverty levels of school districts for 1970
obtained from the National Center for Educational Statistics and the U.S.
Bureau of the Census; (2) market value estimates and estimates of effec-
tive tax rates for 1970 from a questionnaire survey by Texas School Fi-
nance Study Groups (1972); (3) revenue and expenditure data from official
audit reports on school districts for 1971-72; (4) ethnic enrollment data
from Fall, 1971, Title VI. Survey, conducted by the Department of Health,
Education and Welfare; (5) attendance data from the Superintendent's
1971-72 annual report to the Texas Education Agency; and (6) teachers
salaries and degree levels for 1971-72 obtained from the official records
of the Texas Education Agency.

With the exception of the Census, where complete data were avail-
able only for districts of 300^2 or more pupils, information was obtained
on all of the 1,149 school districts in Texas.[3] The various sources of
data were merged to obtain a combined file for analysis.[4]

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Measures of educational resources

The "dependent"[5] variables in this research are indicators of resource inputs into the educational system. The resource inputs can be classified into three types: tax effort measures, revenue and expenditure measures, and measures of quality of educational services.

Tax effort is the effective tax rate, i.e., what the tax rate would be if the property were assessed at its true value. Three types of tax rates are used in the present study: (1) the local fund assignment (LFA) tax rate for raising the school district's contribution to the state's (Minimum) Foundation Program; (2) the maintenance tax rate for general maintenance and operation of the district; and (3) the total tax rate, which includes the maintenance tax and the tax for paying off the district's debt service. In addition, the assessment-sales price ratio, the ratio of assessed to market value, is included as a variable in the analyses.

Revenues and expenditure measures are computed by source to include: (1) local revenue per pupil; (2) state revenue per pupil; (3) local and state revenue per pupil; (4) total revenue per pupil; (5) total per pupil expenditure; and (6) local and state per pupil expenditure.

"Quality of educational services" is measured by information on classroom teachers. The indicators include: (1) mean teacher salary; (2) mean teacher experience, the average number of years of professional

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experience accrued by teachers in each district; (3) percent of teachers with advanced degrees, i.e., MA's or Ph.D's; (4) percent teachers with no college degree; and (5) pupils per teacher. While these teachers' characteristics are imperfect measures of the quality of instruction and classroom interaction, they were the only measures available.

Measures of the bases of inequalities

The bases of inequalities in educational resources for purposes of this research are measures of school district wealth, personal income, and ethnicity. Since there has been considerable disagreement in the courts and in the social science literature over exactly how these concepts should be operationalized, an attempt will be made to provide more than one indicator of each for the purpose of comparison.

School district wealth was operationalized as: (1) assessed valuation of taxable property per pupil in average daily attendance and (2) estimated market value of taxable property per pupil in average daily attendance. These two measures should be carefully distinguished. School district property is assessed by local tax assessors within each school district. Property is normally assessed below the true market value. But the amount of underrevaluation of property varies from district to district in the state. To make matters worse, the actual ratio of the official assessed valuation of property to its true market value—the "assessment-sales price ratio"—is not always known (or not reported)

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since there is no requirement by the state that official reassessments

be conducted periodically. The result of this haphazard system of tax

assessment in Texas is that one cannot know for sure what the actual

wealth of a school district is.

Official estimates of school district assessed valuations are

easy enough to obtain. What are difficult to obtain are the actual

assessment-sales price ratios for the more than 1,100 school districts

in Texas. Probably the best available estimates are from a questionnaire

survey conducted in 1972 by the Texas Education Agency. In order to in-

sure that there would be no gaps in the data; each school district was

mailed an estimate of its assessment-sales price ratio from the best

available source and asked to correct or confirm the figure. They were

told that if no correction was made, the estimate would stand as the of-

ficial estimate for that school district.

Some questions can be raised concerning both the reliability and

the validity of these self-reported assessment ratios. One problem in

reliability arises from the fact that there are often two assessment

ratios in a school district. One is the ratio agreed upon by the school

board and publicly acclaimed. The other is the ratio known to be a more

realistic estimate based on the actual current sale value of the property.

When asked to report how far off the assessed valuations are from true

market value, does the school district report the assessment ratio agreed

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upon by the school board, or does it report the ratio which it believes to be closer to the true ratio of assessed to full sale value? How many school districts actually know what the true assessment ratio is? The figures probably represent only crude estimates. But until the state undertakes a major reassessment of all districts, estimates like these are the best available.

Personal income of school district residents was determined from the 1970 census data aggregated by school district boundaries. Two measures of personal income were utilized: (1) mean family income and (2) percent of the school district population in families with incomes below the official federal poverty level. It is predicted that correlations with percent in poverty will be somewhat lower than with mean family income simply because there is generally less variation in the former than in the latter measure. (See Grubb and Michelson, 1973: 558).

Ethnicity in Texas generally refers to three chief ethnic groups: Mexican Americans, Blacks, and Anglos. The concern in this research is with the ethnic composition of school district enrollments. Thus, pupils of each ethnic group as a percent of the total school district enrollment will constitute the measures of ethnicity.

These measures are the bases of inequalities considered "independent" variables in a loose statistical sense, not in the strict telic sense. Causal relationships cannot be determined with any definitiveness

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due to the nature of the methods of analysis employed. The analyses
will explore statistical relationships among the variables, not isolate
cause-effect relationships, as might be accomplished in controlled exper-
imentation. Whenever possible, however, controls will be made for ex-
planatory intervening variables that might influence a particular rela-
tionship.

Methods of analysis

Two types of analysis were utilized to test the hypotheses.
First, Pearsonian product-moment coefficients of correlation were com-
puted to examine the degree of relationship between measures of the bases
of inequality, on the one hand, and indicators of educational inputs, on
the other. The correlation coefficient is particularly useful for identi-
fying and comparing relationships among a large number of variable pairs.

After identifying the relationships that are sizable, the second
analytic technique was to compare mean values for different categories
of each independent variable. School districts were first rank-ordered
according to the "independent" variable (e.g., Market Value Per Pupil or
Mean Family Income) and divided into quintiles of approximately equal
numbers of pupils.[6] Then, for each category or quintile of pupils the
mean value on each "dependent" variable[7] (e.g., local revenue per pupil
or mean teacher salary) was computed.

Another methodological consideration was whether means should be

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based on districts or on pupils. A mean of districts gives equal weight
to each school district, regardless of its pupil enrollment. While the
mean of districts is certainly defensible for purposes of educational
planning, the questions in the above hypotheses concern the impact of
educational resources on pupils from families of different income levels
and of different ethnicity. Thus, for purposes of analysis in this
chapter, correlation coefficients and the mean value of each educational
input was weighted by the number of pupils in average daily attendance
in each school district. This is crucial for a state like Texas in
which there are a considerable number of districts with very small num-
bers of pupils enrolled. As a result, large districts were given more
"weight" in computing the correlations and means than smaller districts.
Extremely large districts (districts of 75,000 or more pupils in ADA)
were separated out in some of the analyses to see if the relationships
under study were affected by these larger districts.

Methodological limitations

    Before presenting the findings, the limitations of the present
research should be pointed out. As indicated in Figure 1-1 in Chapter 1,
the research has a specific focus--on inequalities in educational inputs
among school districts based on district wealth, individual wealth, and
ethnicity. The research does not consider the following factors:

    1. Intradistrict disparities. Differences within district--

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between schools, between classrooms and even between pupils within classes--no doubt exist but cannot be determined with data on school districts.

2. <u>Differences in pupil needs</u>. This study does not consider differences in educational needs among pupils of different abilities and cultural backgrounds. There is considerable research evidence to indicate that equal dollars per pupil does not provide equality of educational opportunity. Differences among students necessitate differences in the type of educational programs and services provided, thus requiring differences in educational expenditures. Although the present research examines the inequalities that are in the nature of disadvantages to poor children and minority group members, it should not be construed to be advocating that the ideal distribution is one-dollar/one-pupil type of distribution. Certainly a distribution system should take into consideration the needs of pupils.

3. <u>Differences in educational costs</u>. Educational services vary in cost among school districts and regions within a state. The educational costs of small districts are different from those of larger districts. The extent to which <u>economies of scale</u> are operating is not measured in the present research. However, whenever appropriate, district size is controlled for in the analyses.

4. <u>Municipal overburden</u>. The school finance literature has

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noted that taxpayers in urban districts are burdened with taxes for non-educational services more than persons in suburban and rural districts. An exact measure of the degree of municipal overburden is not always available by school district boundaries. Although this factor is not considered in the present research, it certainly should be the subject of future research.

5. Educational outcomes. The effect of specific educational inputs on educational outcomes or student achievement has been the subject of much research and much controversy in school finance litigation. Unfortunately, there is no consensus about what effects educational inputs have on educational outcomes. Furthermore, Texas does not make available data on student achievement by school district. The present research will simply study inequalities in educational inputs that disadvantage the poor and minorities without regard to the ultimate effect of these inequalities upon their educational and occupational achievements.

In the opinion of this author, the methodological limitations cited above in the main tend to mitigate the degree of inequalities based on wealth and ethnicity. Only with more extensive research considering these five factors, will the full extent of inequalities in the system of school finance in Texas be known.

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THE MAGNITUDE OF INTERDISTRICT DISPARITIES

Of the 49 states which have local school districts,[8] Texas in
1969-70 was second only to Wyoming in the ratio of high to low expendi-
tures per pupil. While most had districts with high expenditures
of two to five times that of their low expenditure districts, the varia-
tion in Texas was twenty-to-one.[9] Of course, one might rightly argue
that such comparison is not a fair one. In some states districts with
extremely high expenditures are isolated cases with small numbers of
pupils or special districts educating pupils with physical handicaps or
learning disabilities and cannot be validly compared to the rest of the
districts. But even if these atypical districts are excluded from the
analysis, Texas still ranks high in the amount of interdistrict disparity.
After excluding those districts with 10 percent of the state's total
enrollment which have the highest per pupil expenditures, a comparison
between the district at the 90th pupil percentile in expenditure per pupil
and the lowest expenditure district yields a ratio as high as 3.4 to 1 in
Texas, a disparity which is greater than all but two states.

The great degree of disparity in expenditures among Texas school
districts can be accounted for by at least four factors. First, the wide
disparities can be simply explained in part by the large number of school
districts in Texas. Latest available statistics indicate that Texas had
1,138 operating school districts in 1973-74, more than any other state

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except Nebraska (National Education Association, 1974: 15, Table B-1).
These districts vary considerably in size, ranging from 3 pupils to more
than 200,000 pupils enrolled with about half of the districts having less
than 500 pupils.

A second reason for the large disparities in expenditures is the
fact that a large proportion of the revenues for education are from local
tax collections within these 1,138 school districts. In 1973-74, some
41.5 percent of all revenues for public education in Texas were from
local tax collections. While 47.4 percent of school revenues were from
state sources, these revenues did not have much of a moderating effect on
the inequalities in local funding as will be seen in the analyses below.

Thirdly, the expenditure variations due to inequalities in local
revenues for education occur in part because of the differences in taxes
levied on local property. Effective total tax rates[11] ranged from $.03
to $1.22 per $100 market value of taxable property in 1971-72. The varia-
tion in tax rates may be due in part to differences in the willingness of
residents to tax themselves and in part to differences in ability to tax.
Some districts find it easier than others to raise their tax rates.
While residents of urban centers may feel just as strongly about provid-
ing a good education for their children, they often face "municipal over-
burden," high taxes for services other than education.

Finally, and most important, the disparities in expenditures may

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be accounted for by the large differences in ability of districts to gen-
erate revenues. The revenue raising ability of a district is generally
indicated by the amount of taxable property in the district, since virtu-
ally all local revenues are raised from property taxes. But an argument
might also be made for using family or personal income as a measure of
ability to raise revenue, since ultimately taxes on residential property
must come from the personal incomes of district residents. Personal in-
come has the advantage of not having the same idiosyncratic variation
found in the property value measure (Reischauer and Hartman, 1973: 70).

The interaction of these four factors produce wide disparities in
school district revenues and expenditures among Texas school districts.
An examination of size of the variations in the variables under study in
the present research follows.

Variations in the bases of inequalities

Table 2-2 compares variations in school district wealth, personal
income and ethnicity among school districts in Texas. As can be seen
from the coefficients of variation for the different measures, market
value per pupil has the largest variation. Estimated market values per
pupil.[12] during 1970 ranged from $5,147 in Edgewood I.S.D. in San Antonio
to $10,862,838 in Provident City I.S.D. in Wharton County, a high-low
ratio of more than 2,110 to 1. It might be noted that Provident City
I.S.D., a rural district, had only three pupils in average daily attendance

TABLE 2-2   VARIATION OF MEASURES OF PROPERTY VALUE, INCOME
AND ETHNICITY FOR ALL TEXAS SCHOOL DISTRICTS,
1970 AND 1971-72

School District Characteristics	Lowest Value	Highest Value	Pupil Mean	Coef. of Var.[a]	Skewness
Property Value[b]					
Assessed Value Per Pupil	$ 952	$ 1,148,955	$20,124	.65	10.70*
Market Value Per Pupil	5,147	10,862,838	52,485	1.33	23.35*
Income[c]					
Mean Family Income	666	23,106	10,015	.24	.81
Percent Below Poverty	1.3	82.1	15.7	.68	1.62
Ethnicity[d]					
Pct. Mexican American	0.0	100.0	22.2	1.16	1.39
Pct. Black Pupils	0.0	77.2	15.0	1.03	.85
Pct. Anglo Pupils	0.0	100.0	62.4	.40	-.36

(a) Coefficient of variation = $\dfrac{\text{Weighted Pupil Standard Deviation}}{\text{Weighted Pupil Mean}}$

(b) Data are for 1970. Mean and median are weighted by the number of
pupils in average daily attendance, 1970-71.

(c) Data are from 1970 Census, Fourth Count. Mean and median are weighted
by the number of pupils in average daily attendance, 1970-71. Districts
of less than 300 pupils are not included in these census data figures.

(d) Data are for 1971-72. Mean and median are weighted by number of pupils
in average daily attendance, 1970-71

* Skewness is significant beyond the .05 level.

while Edgewood, an urban district, had over 20,000 pupils 'n ADA. Also noteworthy is the fact that Edgewood I.S.D. had a total effective tax rate of $1.05 per $100 of market value of real property while Provident City I.S.D. had a total tax rate of $.05, a ratio of 21 to 1. While Provident City I.S.D. is not altogether typical of most high wealth school districts, there are a number of these high wealth-low enrollment, rural, tax-sheltered enclaves in Texas.

Although mean family income varied from as low as $666 to a high of $23,106, the overall degree of variation in this was about one-fifth that of estimated market value per pupil. The percent of persons in families below the official federal poverty level in 1969 ranged from 1.3 percent to 82.1 percent.

Measures of the ethnic composition of school district enrollments in 1971-72 had large variations. This is partly due to the fact that generally districts had either low percentages of minority pupils or very high concentrations of ethnic pupils. Minority group members constituted 37 percent of all pupils in the state, three-fifths of which were Chicanos and two-fifths Blacks.

It is important to note that distributions on two of the variables are highly skewed. Both measures of property values per pupil are highly skewed due to the small school districts with the extremely high values per pupil. Most of the measures are positively skewed, indicating that

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values are generally concentrated at the low end of the continuum with a few extremely high values.

Disparities in educational inputs

Table 2-3 compares variations in educational input characteristics. With the exception of percent teachers with no degree, the variation is greatest in local revenues per pupil, lending support to the belief stated earlier that local revenues contribute most to the inequalities in school district expenditures. Inequalities in local revenues, of course, are themselves determined by unequal tax effort and unequal taxable wealth. The total effective tax rate varies from less than 3 cents to $1.48 per $100 of market value of real property, a high-low ratio fifty-to-one. Wide variation is also found in the assessment-sales price ratio, with property assessments ranging from 3 percent to 95 percent of actual market value.

The variation in state revenue per pupil was about one-third that of local revenue. When local and state revenues are combined, the degree of variation is approximately one-half the variation in local revenue. Since federal revenues account for only about 10 per cent of all revenues for education in Texas, adding federal revenue to local and state did not change the degree of disparity appreciably.

Of the indicators of quality of educational services, teacher salaries varied least of all. This may be due partly to the fact that

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TABLE 2-3 VARIATION MEASURES OF EDUCATIONAL INPUTS FOR ALL TEXAS
SCHOOL DISTRICTS, 1971-72

School Districts Characteristics	Lowest Value	Highest Value	Pupil Mean	Coeff. of Var.[a]	Skewness
Tax Rates[b]					
LFA Tax Rate	0.0	94.3	16.7	.31	-.33
Maintenance Tax	2.8	122.2	59.1	.33	-.57
Total Tax Rate	2.8	147.5	78.1	.32	-.58
Assessment Ratio	3.1%	95.0%	47.1%	.32	-.25
Revenues and Expenditures[c]					
Local Rev/Pupil	$ 16	$ 9,607	$ 379	.55	3.24*
State Rev/Pupil	0	1,190	378	.18	.23
Local & State Rev/Pupil	342	9,930	758	.23	3.73*
Total Rev/Pupil	343	9,930	826	.19	
Total PPE	332	6,915	694	.18	3.95*
Local and State PPE	332	6,915	653	.19	2.09*
Quality of Educational Services[c]					
Mean Teacher Salary	$5,797	$18,222	$8,456	.08	.39
Mean Teacher Experience	.7	38.0	9.9	.25	.57
Pct. Teachers w/MA or PH.D	0.0	100.0	26.9	.38	.53
Pct. Teachers w/No Degree	0.0	100.0	.6	3.13	15.35*
Pupils Per Teacher	3.8	83.0	21.8	.11	.41

(a) Coefficient of variation = $\dfrac{\text{Weighted Pupil Standard Deviation}}{\text{Weighted Pupil Mean}}$

(b) Data are for 1970. Mean and median are weighted by the number of pupils in average daily attendance, 1970-71.

(c) Data are for 1971-72. Mean and median are weighted by number of pupils in average daily attendance, 1970-71.

* Skewness is significant beyond the .05 level.

the state sets minimum salary levels. Most of the differences in salary can be explained by differences in teacher experience and degree level, two factors that are built into the salary scale. Although the range was considerable (from a low of $5,797 to a high of $18,222) the overall variation was low. There was also very little overall variation in number of pupils per teacher. The greatest variation among these resource quality measures was found in percent of teachers with no degree, which was highly skewed with most districts concentrated near zero. Percent of teachers with advanced degrees and mean years of teacher experience, however, were not skewed very much at all.

In short, there is considerable disparity in the distribution of educational resources in Texas. The important question for this research, however, is whether these disparities relate to the variations in the measures of district wealth, income, and ethnicity. If the educational inputs are patterned such that they disadvantage groups that historically have been oppressed, then a case for discrimination can be found to have empirical support.

RES. QUES. 1: INEQUALITIES BASED ON DISTRICT WEALTH

The first research question concerns the relationship between the property wealth of a school district and tax effort, the amount of revenue and expenditures for education and the quality of educational services

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provided. This question has been addressed in many previous research efforts and is at the crux of the fiscal neutrality principle, that a child's education should not be conditioned by such an arbitrary factor as the wealth of the district in which he resides (Coons, Clune, and Sugarman, 1970: 2). Although the Supreme Court refused to accept this principle as sufficient for declaring the Texas system of school finance unconstitutional, the Court acknowledged that inequalities do exist. Indeed, inequality in school district wealth has been recognized as the chief explanation for the unequal distribution of educational resources within states. The evidence presented by plaintiffs in the Rodriguez case was convincing that inequalities in educational resources were due largely to disparities in district wealth. Berke's affidavit in the case presented by plaintiffs, based on a sample survey of 110 school districts in Texas, reported a relationship between district wealth and quality of educational services. This relationship is tested again in this study on the entire population of school districts in the state.

Table 2-4 presents correlation coefficients between the two measures of property value and indicators of school district resources for all Texas school districts. As predicted in Hypothesis 1A, the higher the market value of real property per pupil, the less the tax effort. However, the correlations of tax rates with assessed value of property per pupil are not entirely as predicted. There is a small inverse

TABLE 2-4.   PEARSON CORRELATIONS OF MARKET VALUE PER PUPIL AND
ASSESSED VALUE PER PUPIL WITH INDICATORS OF SCHOOL
DISTRICT INPUT RESOURCES IN TEXAS

Indicators of School District Inputs*	Market Value Per Pupil 1970-71	Assessed Value Per Pupil 1970-71
Tax Effort		
LFA Tax Rate**	-.235	.056·
Maintenance Tax Rate**	-.354	.014
Total Tax Rate**	-.445	-.121
Assessment Ratio**	-.426	-.077
Revenues & Expenditures		
Local Rev/Pupil	.645	.895
State Revenue Per Pupil	-.391	-.579
Local and State Rev/Pupil	.620	.846
Total Rev/Pupil	.612	.788
Total PPE	.611	.756
Local and State PPE	.627	.817
Quality of Educational Services		
Mean Teacher Salary	.179	.466
Mean Teacher Experience	.159	.081
Pct Teachers with MA or PhD	.057	.165
Pct. Teachers with No Degree	.052	-.084
Pupils Per Teacher	-.333	-.417

* Data for first four indicators are for 1970-71. All other indicators are for
1971-72.

** Correlations with these variables are weighted by the number of pupils in ·
average daily attendance (ADA) in each district 1970-71; all others are
weighted by ADA, 1971-72. Tax rates are effective tax rates based on the
estimated true market value of real property in school districts.

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relationship between assessed valuation per pupil and the total tax rate.

The relationships between property value measures and school district revenues and expenditures, as predicted in Hypothesis 1B, are sizable as would be expected from a finance system based on the property tax. The correlations with assessed value per Pupil are higher than those with market value per pupil since it is the assessed valuation that is the figure used in raising tax revenues within a district. Correlations with local revenue are largest. State revenue has an inverse moderate relationship with the two measures of property value, indicating that state aid is somewhat equalizing. However, when revenue from state sources is combined with local revenue, the state revenue does not significantly reduce the correlation with either property value measure. Adding federal revenues likewise does not appreciably affect the relationship between revenue and property values.

With regard to Hypothesis 1C on the relationship between indicators of the quality of educational services and property values, only the correlations with mean teacher salary and pupils per teacher are sizable. All but one of the other correlations, however, are in the direction predicted.

These relationships may also be expressed as means for different categories of market value per pupil. Table 2-5 presents the mean assessment ratio, total effective tax rate, and revenues by quintiles of market

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TABLE 2-5.   TAX AND REVENUE DATA BY QUINTILES OF MARKET VALUE PER PUPIL, TEXAS SCHOOL DISTRICTS, 1970-71 AND 1971-72

Market Value Fifths (MV/ADA)[a]	(1) Assessment Ratio 1970-71[b]	(2) Total Tax Rate 1970-71[c]	(3) Local Rev/ADA 1971-72[d]	(4) State Rev/ADA 1971-72	(5) Local & State Rev/ADA 1971-72	(6) Total Rev/ADA 1971-72	No. of Pupils in ADA 1971-72
$ 56,550 or More	34.3%	$ .57	$536	$347	$884	$938(	(678,938)
56,549 - 45,544	45.3	.76	472	355	827	835	(310,031)
45,543 - 33,450	52.1	.85	377	395	772	819	(496,149)
33,449 - 25,600	50.7	.88	307	396	703	783	(488,972)
25,599 - 5,147	57.6	.92	186	400	587	688	(503,638)

a) Market values per pupil in average daily attendance (ADA), assessment ratios, and total tax rate are for 1970.
Source: Texas School Finance Study Groups, Preliminary Estimates of 1970 Market Value of Taxed Property of Texas School Districts, Austin, Texas, 1972.

b) Assessme.. ratio is the ratio of assessed valuation to full market value.

c) Equalized tax rate per $100 of estimated market value.

d) Revenues per pupil in ADA are means, weighted by the number of pupils in ADA in each school district, for 1971-72. The data are from official audit reports of school district accounts.

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value per pupil for all Texas school districts. From column 1 it is clear that while most Texas school districts are assessed far below their actual market value, property-poor school districts are assessed at a much higher percent of market value than wealthier districts. The fifth of Texas public school pupils in the lowest property value districts are in districts assessed on the average of 58 percent of true market value, while the fifth of students in the wealthiest districts are in districts assessed at an average of 34 percent of true market value.

When the assessment ratio is taken into consideration, the total effective tax rate is also found to be inversely related to district wealth. (See column 2, Table 2-5.) The school districts in the lowest market value fifth are effectively exerting almost twice as great a tax effort as districts in the highest market value fifth.

But even with higher effective tax rates, property poor school districts are unable to raise the same revenues as the wealthier districts. Local revenue per pupil is three times as high in the highest as in the lowest market value fifth. (See Column 3, Table 2-5.) While state revenues should compensate for the differences in local ability to fund education, this does not happen in Texas. State revenue per pupil (Column 4) is only $53 more in the lowest market value fifth than in the highest market value fifth. The result is that students in the highest

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wealth districts still receive an average of $297 per pupil more in local and state revenues for their education than students in the poorest property wealth category. (See column 5, Table 2-5). When federal funds are taken into consideration, the differences are mitigated slightly, but there remains a $250 difference between the lowest and highest property value fifths in total revenue per pupil. (See column 6, Table 2-5.)

Eliminating the largest districts

Since the figures presented in Table 2-5 are means weighted by the number of pupils in each district, the largest districts' influence the mean values more than do smaller districts. Houston I.S.D., Dallas I.S.D., and Fort Worth I.S.D., the three largest school districts, have a combined enrollment of mo.e than one-fifth of the total number of pupils in the state. If these districts are removed from the analysis, the relationship between market value of property in a district and the district's educational inputs may be examined for the remainder of the school districts in the state. The results of the analysis after excluding these three districts is shown in Table 2-6. Comparing Tables 2-5 and 2-6, it is clear that the exclusion of the three largest districts reveals even greater inequalities in educational inputs based on district wealth. Local revenues are three and a hal times as great in the high wealth fifth as in low wealth fifth. (See column 3, Table 2-6.) Differences in state revenues are about the same. The gap between the low and high fifth

TABLE 2-6. TAX AND REVENUE DATA BY QUINTILES OF MARKET VALUE PER PUPIL, TEXAS SCHOOL DISTRICTS OF LESS THAN 75,000 PUPILS, 1970-71 AND 1971-72

Market Value Fifths (MV/ADA)a	(1) Assessment Ratio 1970-71b	(2) Total Tax Rate 1970-71c	(3) Local Rev/ADA 1971-72d	(4) State Rev/ADA 1971-72	(5) Local & State Rev/ADA 1971-72	(6) Total Rev/ADA 1971-72	(No. of Pupils in ADA 197?)
$66,600 or More	31.5%	$ .50	$622	$399	$961	$1,011	(36,075)
66,559 - 40,000	41.4	.71	391	394	786	845	(415,011)
39,999 - 31,600	53.9	.88	363	403	766	817	(435,696)
31,599 - 24,250	49.2	.85	275	405	679	761	(414,370)
24,249 - 5,147	59.9	.94	175	397	571	676	(416,135)

a) Market values per pupil in average daily attendance, assessment ratios, and total tax rate are for 1970.

Source: Texas School Finance Study Groups, Preliminary Estimates of 1970 Market Value of Taxed Property of Texas School Districts, Austin, Texas, 1972.

b) Assessment ratio is expressed as a percent of full market value.

c) Equalized tax rate per $100 of estimated market value.

d) Revenues per pupil in ADA are means, weighted by the number of pupils in ADA in each school district, for 1971-72. The data are from official audit reports of school district accounts

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increased from $29? to $390 per pupil when the three largest districts are excluded (column 5); and the difference in total revenues increases from $250 to $335 per pupil (column 6).

In sum, the following may be said with respect to the findings on the relationship between educational inputs and district wealth:

1. With respect to Hypothesis 1A, the findings support the prediction that the greater the market value of property in a district, the lower the effective tax rate.

2. With respect to Hypothesis 1B, the higher the market value (and likewise the higher the assessed value) of property in a district, the greater the amount of revenue available for education. The gap between property rich and property poor districts is considerably large.

3. Hypothesis 1C is supported with respect to some indicators of the quality of educational resources, but not all. The greater the assessed value of property in a district, the higher the mean teacher salary, and the fewer the number of pupils per teacher. The correlations with teachers' degree level and experience are in the direction predicted, but very weak.

4. When the three largest school districts in the state are removed from the analysis, the inequalities in educational revenues based on district wealth are increased.

In general, Berke's findings from a 10 percent sample of districts in

Texas in 1968 on the relationship between district wealth and district

revenue reported by plaintiffs in the Rodriguez argument are confirmed

by the present analysis of all school districts in Texas.

RES. QUES. 2: DISTRICT WEALTH AS RELATED
TO INCOME AND ETHNICITY

The school finance suits that built their cases on the fiscal

neutrality principle generally ignored the relationship between district

wealth and individual wealth, often taking for granted that such a rela-

tionship existed. Indeed, the evidence that there is a high correlation

between individual and district wealth was not essential to the fiscal

neutrality argument. Plaintiffs arguing the fiscal neutrality principle

in the Serrano case won by arguing that discrimination against children

in poor districts was sufficient to be considered a violation of equal

protection guarantees. As the Serrano court ruled,

> . . . we reject defendants' underlying thesis that classification by
> wealth is constitutional so long as the wealth is that of the dis-
> trict, not the individual. We think that discrimination on the basis
> of district wealth is equally invalid. The commercial and industrial
> property which augments a district's tax base is distributed unevenly
> throughout the state. To allot more educational dollars to the chil-
> dren of one district than to those of another merely because of the
> fortuitous presence of such property is to make the quality of a
> child's education dependent upon the location of private commercial
> and industrial establishments (Serrano v. Priest, 5 Cal. 3d 584, 487,
> P.2d 1241, 96 Cal. Rptr. 601 [1971]).

But the U.S. Supreme Court rejected this same argument in the

Rodriguez case, noting that legal precedent did not support the district

discrimination theory as meeting the traditional standard of establish-
ing that a suspect classification had been created. From the Rodriguez
decision it was made clear that if a case for school finance reform based
on the equal protection clause of the federal constitution is to win, it
will have to show injury to individuals who are poor or historically dis-
advantaged. Carey suggests that

> . . . the court left open the possibility of establishing a class
> where individual family poverty coincides with district poverty... . .
> If such a concentration could be demonstrated, a suspect class might
> be established in another school finance challenge. Similarly, if
> the group of students denied equal benefits were of minority extrac-
> tion, the denial would clearly be subjected to the strict scrutiny
> test traditionally applied to racially discriminatory situations
> (Carey, 1974: 17).

And, as Wise advises, further research is needed to provide "a more pre-
cise identification of the disadvantaged class" in a particular state in
order to develop such a case. The research to this point has not been
very conclusive. What tentative empi :cal evidence has been produced is
often contradictory and it seems that in the few states that have been
studied the relationships are not very strong since the urban poor often
live in the areas where commercial and industrial property are located.
But each state must be examined separately. Table 2-7 shows the interre-
lationships among measures of district wealth, individual wealth and
ethnicity for all Texas school districts. It is immediately apparent
that the data show a lack of correlation of estimated market value of
taxable property with both mean family income of district residents (.009)

TABLE 2-7. 'PEARSON INTERCORRELATIONS AMONG INDICATORS OF DISTRICT WEALTH, INCOME, ETHNICITY, AND PCT RURAL, ALL TEXAS SCHOOL DISTRICTS

	Market Value Per Pupil, 1970*	Assessed Value/ADA, 1970*	Mean Family Income, 1970*	Percent in Poverty, 1970	Percent Mexican American Enrolled, 1971-72,	Percent Blacks Enrolled, 1971-72	Percent Anglos Enrolled, 1971-72
Assessed Value/ADA, 1970*	.757						
Mean Family Income, 1970*	.009	.331					
Percent in Poverty, 1970*	-.019	-.288	-.758				
Percent Mexican American Enrolled, 1971-72	-.095	-.248	-.499	.755			
Percent Blacks Enrolled, 1971-72	-.021	.---	-.001	-.067	-.35(		
Percent Anglos Enrolled, 1971-72	.113	.--8	.515	-.739	-.814	-.256	
Percent Rural Population, 1970	.326	.084	-.424	.334	-.046	-.074	.098

* Correlations with these variables are weighted by the number of pupils in average daily attendance in each district, 1970-71; all others are weighted by ADA 1971-72.

and percent persons in poverty (-.021). However, a considerably stronger correlation is found when the official assessed valuation of property is related to mean family income (.331) and percent in poverty (-.290). The same pattern of relationships is found when the two measures of property value are correlated with percent Mexican American pupils. The correlations of both measures of property values with percent Black pupils enrolled, however, are very low and in the case of assessed value the opposite of what was predicted.

The relationship between assessed valuation of property and income and ethnicity for all Texas school districts is presented in a different way in Table 2-8. Districts were rank-ordered according to assessed value of property per pupil and divided into five categories of equal numbers of pupils. The mean value for each quintile based on the number of pupils in average daily attendance in each district was computed for the various measures of income and ethnicity. The findings indicate that the fifth of pupils. in districts with the lowest assessed valuations were in districts with the lowest mean family income, highest percent below poverty and the greatest percent of Mexican American pupils. Districts in the highest assessed value fifth had residents with a mean income level 37 percent higher than those in the lowest fifth, half as many persons below poverty, and only one-third as many Mexican American pupils. The percent of black pupils enrolled, however, was somewhat

TABLE 2-8   MEAN INCOME AND ETHNIC CHARACTERISTICS FOR QUINTILES OF ASSESSED VALUAT
OF REAL PROPERTY PER PUPIL IN TEXAS SCHOOL DISTRICTS, 1970-71[*]

| Assessed Value Per Pupil in Quintiles of ADA[a] | Income Characteristics[b] | | Ethnic Characteristics[c] | | (N of Pupils in ADA 1970) |
	Mean Family Income	Pct. Below Poverty	Pct. Mexican American Enrolled	Pct. Blacks Enrolled	
$ 25,450 or More	$10,867	12.8	14.1	18.6	(506,978)
25,449 – 21,059	11,002	12.2	14.7	23.2	(483,359)
21,058 – 15,910	11,043	11.2	13.0	11.0	(497,980)
15,909 – 11,083	8,806	18.5	27.2	12.9	(532,133)
11,082 or Less	7,905	24.5	43.3	10.6	(452,274)

[*] All means are weighted by the number of pupils in average daily attendance (ADA) in each school district for 1971-72.

SOURCES:

(a) Assessed values are from. Preliminary Estimates of 1970 Market Value of Taxed Property of Texas School Districts, Austin, Texas: Texas School Finance Study Groups, 1972. "Assessed value" is the official estimate of school district property. Values are presented in dollars per pupil in average daily attendance, 1970-71.

(b) Income Characteristics are from the School District Fourth Count Census Tape for 1970, National Center for Educational Statistics, U.S Office of Education.

(c) Ethnic Characteristics are from Dept. of HEW, Fall 1971 Title VI Survey of school districts.

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greater in the districts with higher assessed values. Differences among the three highest property value fifths were not very great; the greatest disparities were found between the lowest two property value fifths and the three highest fifths of pupils.

There remains the question of why income and ethnicity are related as predicted to assessed valuation of property and not to estimated market value. Apparently the assessment-sales price ratio is much lower in low income areas than in high income areas. It is also interesting to note from Table 2-7 that the correlation of percent rural populati n with market value is considerably higher than the correlation with as essed value, indicating that the assessment ratio is lower in rursi than in non-rural areas. Thus, if rural areas were separated from the analysis, a higher correlation might be found between income and estimated market value of property.

The correlation coefficients relating assessed and market values per pupil to income and ethnicity measures for all districts and for non-rural districts are presented in Table 2-9. Correlations between esti-mated market value of taxable property per pupil and the various indi-cators of personal income are considerably higher in non-rural school districts than in all districts. The correlation coefficients range from -.375 with percent in poverty to .639 with income per pupil, all in the predicted direction. Correlations of income measures with assessed

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TABLE 2-9. PEARSON CORRELATIONS RELATING ASSESSED AND MARKET VALUES PER PUPIL TO MEASURES OF PERSONAL INCOME OF SCHOOL DISTRICT RESIDENTS, 1970*

Income Measures	Assessed Value Per Pupil		Market Value Per Pupil	
	All Districts	Non-Rural**	All Districts	Non-Rural**
Income Measures				
Mean Family Income	.331	.532	.009	.436
Percent in Poverty	-.290	-.466	-.021	-.375
Per Capita Income	.361	.546	.051	.452
Per Pupil Income	.350	.689	.056	.639
Ethnicity Measures				
Pct. Mexican Americans	-.248	-.332	-.097	-.112
Pct. Blacks	.048	.179	-.019	.041
Pct. Anglos	.228	.203	.114	.082

* All correlations are weighted by the number of pupils in average daily attendance in each district, 1970-71.

** Non-rural districts are districts with 10 percent or less rural population according to the 1970 census. Number of pupils in ADA for non-rural districts is 1,416,398. Number of pupils in ADA for all districts is 2,417,977.

valuation of taxable property are also improved somewhat by controlling

for percent rural population, ranging from -.466 with percent in poverty

to .689 with per pupil income.

Correlations between the two property value measures and the in-

dicators of ethnic composition of school districts are not appreciably

altered by controlling for percent rural. There is a slight increase in

the degree of correlation between assessed valuation of property per pupil

and both percent Mexican American and percent Black. Generally, however,

the only hypothesized relationship between measures of school district

ethnicity and property value indicators that is even moderate in size is

the inverse correlation of percent Mexican American and assessed value of

property per pupil.

The following conclusions can be drawn from the data with rega'

to Hypothesis 2A:

1. When official assessed value of taxable property is used as

the measure of property value, the hypothesis is supported. There is a

moderate direct relationship between the income level of district resi-

dents and the assessed valuation of taxable property per pupil in Texas

school districts.

2. When estimated market value of taxable property is used as

a measure of property value, the hypothesis is supported only after con-

trolling for percent rural. In non-rural areas, there is a strong direct

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TABLE 2-11. LOCAL AND STATE REVENUES AND TEACHER SALARIES, 1971-72, BY MEAN FAMILY
INCOME, OF TEXAS SCHOOL DISTRICT RESIDENTS, 1970

Mean Income Fifths[a]	(1) Local Rev/ADA[b]	(2) State Rev/ADA	(3) Local & State Rev/ADA	(4) Mean Teacher Salary	(Number of Pupils in ADA 1971-72)
$11,549 or more	$482	$339	$821	$8,775	(493,745)
11,548 - 10,465	452	350	802	9,092	(478,335)
10,464 - 9,225	370	384	754	8,495	(469,600)
9,224 - 7,814	334	402	736	8,150	(479,686)
7,813 or less	244	409	653	7,853	(490,851)

a) Mean income is from 1970 census data on school districts.

b) Revenues per pupil in average daily attendance (ADA) are means, weighted by the number of pupils in A
   in each school dirict, for 1971-72. The data are from official audit reports of school district accounts.

TABLE 2-12.   SCHOOL DISTRICT WEALTH, ETHNICITY, AND PERCENT RURAL FOR QUINTILES
OF MEAN FAMILY INCOME OF RESIDENTS IN TEXAS SCHOOL DISTRICTS, 1970-71*

Mean Family Income in Quintiles of ADA[a]	Assessed Value Per Pupil[b]	Estimated Market Value Per Pupil[b]	Pct. Mexican American Enrolled[c]	Pct. Rural Population[d]	(N of Pupils in ADA, 1970-71)
$11,549 or More	$24,798	$48,331	6.2	6.0	(488,914)
11,548 - 10,465	23,173	51,206	12.8	5.7	(431,546)
10,464 - 9,225	20,126	46,639	23.9	14.6	(486,425)
9,224 - 7,814	17,491	51,934	23.8	27.9	(479,026)
7,813 or Less	12,729	48,738	44.8	50.2	(482,066)

* All means are weighted by the number of pupils in average daily attendance (ADA) in each district for 1971-72.

SOURCES:

(a) Mean Family Income is from School District Fourth Count Census Tape, 1970, National Center for Educational Statistics, U. S. Office of Education.

(b) Assessed and Market Values are from: Preliminary Estimates of 1970 Market Value of Taxed Property of Texas School Districts, Austin, Texas: Texas School Finance Study Groups, 1972.

(c) Percent Mexican Americans enrolled is from Dept. of HEW, Fall 1971 Title VI Survey of school districts.

(d) Percent Rural Population is from School District First Count Summary Tape for 1970, U. S. Dept. of Commerce, Bureau of the Census.

values of property per pupil, percent Mexican American and percent rural
for each income fifth. A consistent direct relationship is found between
mean income district residents and the assessed value of real property
per pupil. The assessed value of property is twice as high in the highest
income fifth as it is in the lowest income fifth. Estimated market value,
however, does not show a consistent relationship to mean family income.
Thus, the self-reported assessment-sales value ratios are considerably
lower in the low income districts than in the high income districts, caus-
ing estimates of true market value to be much higher than the official
assessed value in the high-income districts. As would be expected school
districts with low income residents are also districts with higher pro-
portions of Mexican Americans and rural persons.

The following conclusions can be drawn from the findings with re-
spect to Research Question 3:

1. Hypothesis 3A is not supported since tax rates tend to be
higher for high income residents.

2. Hypothesis 3B is supported. The higher the income level of
district residents, the greater the amount of educational revenue per
pupil.

3. Hypothesis 3C is supported in part. The higher the income
level of district residents, the higher the teacher salaries, the higher
the proportion of teachers with advanced degrees and the less the proportion

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of teachers with no degrees, but the lower the mean experience level of
teachers and the greater the number of pupils per teacher.

RES. CUES. 4: INEQUALITIES BASED ON ETHNICITY

Racial and ethnic discrimination is one area in which the Supreme
Court has traditionally applied the strict scrutiny test in determining
whether there has been denial of equal protection. But proponents of
the fiscal neutrality principle have been careful to charge discrimina-
tion in school finance on racial or ethnic groups chiefly because this
would be politically unwise. Coons, Clune, and Sugarman--the theoretical
mentors of the fiscal neutrality doctrine--caution that in presenting the
fiscal neutrality argument, "There will surely be enough upset over the
question on social and economic grounds without evoking all the furies of
racism" (1970: 357). Furthermore, they cite evidence that in California
minority children are not concentrated largely in low expenditure school
districts (1970: 354, n.47). They contend that:

> There is no reason to suppose that the system of district-based
> school finance embodies racial bias. Districts containing the great
> masses of black children ordinarily also contain great masses of
> white children . . . No doubt there are poor districts which are
> basically Negro, but it is clear almost by definition that the vast
> perponderance of such districts is white (1970: 356-357).

While Black pupils in California may not be concentrated in low-
expenditure school districts,[13] the distribution pattern may be different
with respect to Mexican Americans in Texas. The concern in this study is

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with those districts which have a preponderance of Mexican American pupils. These districts account for over two-thirds of the Spanish-surnamed pupils enrolled in public schools in Texas. The issue raised in Research Question 4 is whether educational inputs in these districts are inferior to those districts of less than fifty percent Mexican Americans enrolled.

Previous research on inequalities by ethnic composition of school districts in Texas indicates that there is an inverse relationship between percent Mexican Americans enrolled and per pupil expenditure. A 1969 sample survey by the U.S. Commission on Civil Rights uncovered evidence on fiscal inequities among Texas school districts of differing ethnic composition. The results of their study, shown in Table 2-13, lead to the conclusion that the greater the percent of Mexican Americans enrolled in a district, the less the per pupil assessed value of property and the less the per pupil expenditure. These findings were confirmed in a follow-up to the Civil Rights Commission survey by Brisccetto and Arciniega (1973b).

The same relationship between the ethnic composition of a district and its property wealth as measured by assessed and market values per pupil is found if we examine the data on all school districts in Texas in Table 2-14. The assessed value or property per pupil is twice as large in districts of less than 25 percent Mexican American pupils enrolled as in districts of 75-100 percent Mexican American. The same is true of estimated market value of taxable property per pupil. The greatest

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TABLE 2-13. ESTIMATED MARKET VALUE, ASSESSED VALUE, AND EXPENDITURE
PER PUPIL, TEXAS SCHOOL DISTRICTS OF 10 PERCENT OR MORE
MEXICAN AMERICAN PUPILS, 1967-68

Percent Mexican American of District Enrollment	Market Value Per Pupil[a]	Assessed Value Per Pupil[a]	Per Pupil Expenditure 1967-68[b]
10 - 19.9	$48,326	$18,413	$464
20 - 29.9	66,943	16,518	484
30 - 49.9	56,137	15,273	450
50 - 79.9	30,334	10,674	383
80 - 100	20,813	7,224	296

SOURCES: (a) Governor's Committee on Public School Education, The Challenge and the Chance, Supplement, December 1968. Reprinted from: USCCR, 1972b: 21, Table 10.

(b) USCCR Spring 1969 Survey of School Districts of 10 Percent or more Mexican Americans enrolled. Reprinted from: USCCR, 1972b: 26, Table 14.

TABLE 2-14. ASSESSED VALUATION PER PUPIL AND ESTIMATED TRUE MARKET
VALUE PER PUPIL BY PERCENT MEXICAN AMERICAN PUPILS
ENROLLED IN TEXAS SCHOOL DISTRICTS, 1970-71

Percent Mexican Americans Enrolled[a]	Assessed Valuation Per Pupil[b]	Market Value Per Pupil	(No. of Pupils in ADA 1970)
0 - 24.9	$21,773	$54,743	(1,831,494)
25 - 49.9	24,062	84,222	(170,163)
50 - 74.9	13,029	33,841	(320,738)
75 - 100	10,869	29,925	(152,944)

SOURCES:

(a) Percent Mexican Americans enrolled is from Department of Health, Education and Welfare, Fall 1971 Title VI Survey.

(b) Assessed Valuation and Market Value are from: Preliminary Estimates of 1970 Market Value of Taxed Property of Texas School Districts, Austin, Texas: Texas School Finance Study Groups, 1972. Both are presented in dollars per pupil in average daily attendance, 1970-71.

difference in property values is between districts of less than 50 percent and those of a majority Mexican American pupils. The fact that property wealth and ethnic composition are related suggests that we might also expect a relationship between ethnicity and the educational resources available for children in Texas public schools.

Table 2-15 shows correlation between educational inputs and three measures of the ethnic composition of school districts. There is almost no correlation between tax effort and the ethnic composition of school districts. This finding refutes the stereotype that minority group members receive less in educational revenues simply because they do not exert as much tax effort as members of the dominant group. In fact, the data indicate that persons in districts with higher concentrations of Mexican American pupils are slightly more likely to make the greatest tax effort.

As predicted in Hypothesis 4B revenues are higher in districts with proportionately fewer Mexican American pupils and more Anglo pupils. But contrary to what was predicted, there is a small positive correlation between revenues per pupil and the percent of Black pupils enrolled. This anomaly might be explained by.the fact that two-thirds of the Black pupils in Texas are located in the three largest urban school districts, where revenues and expenditures are somewhat higher than in the average for the state.

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TABLE 2-15.   PEARSON CORRELATIONS OF PERCENT MEXICAN AMERICAN, PERCENT BLACK AND PERCENT ANGLO WITH INDICATORS OF SCHOOL DISTRICT INPUT IN TEXAS, 1971-72*

Indicators of School District Inputs	Percent Mexican Americans Enrolled	Percent Blacks Enrolled	Percent Anglos Enrolled
Tax Effort			
LFA Tax Rate**	-.001	.183	-.114
Maintenance Tax Rate+*	.015	.076	-.062
Total Tax Rate**	.074	-.047	-.048
Assessment Ratio**	.085	-.092	-.035
Revenues & Expenditures			
Local Rev/Pupil	-.297	.097	.248
State Revenue Per Pupil	.043	-.055	-.009
Local and State Rev/Pupil	-.339	.095	.294
Total Rev/Pupil	-.145	.088	.097
Total PPE	-.130	.202	.011
Local and State PPE	-.303	.164	.212
Quality of Educational Resources			
Mean Teacher Salary	-.352	.452	.081
Mean Teacher Experience	-.150	.328	-.046
Pct. Teachers with MA or PhD	-.520	.399	.290
Pct. Teachers with No Degree	.291	-.112	-.229
Pupils Per Teacher	.050	.201	-.179

* All correlations are weighted by the number of pupils in average daily attendance (ADA) in each district, 1971-72.

** Data for first four indicators are for 1970-71. All other indicators are for 1971-72. Tax rates are effective tax rates based on estimated true market value of real property in school districts.

The correlations between indicators of quality of educational services and percent Mexican Americans enrolled are generally inverse as predicted in Hypothesis 4C. Districts with high concentrations of Blacks, however, have higher quality educational services than districts with lower concentrations of Black pupils.

The mean values of district revenue and teacher salary by percent Mexican American pupils enrolled in Texas school districts are shown in Table 2-16. Districts with the lowest concentration of Mexican American pupils collect more than twice as much local revenue (column 1) as those with the greatest proportion of Mexican American pupils.

As in the case with inequalities in revenues by district and personal wealth, state revenues (column 2) do not equalize the disparities in local revenues among districts of different ethnic enrollments. After state revenue is added, districts with the lowest proportion of Mexican American pupils have $216 more local and state revenue per pupil (column 3) than districts in the category with the highest percent Mexican American pupils.

The inequalities in district revenues are translated into unequal teacher salaries. Teachers in districts of 75-100 percent Mexican American pupils enrolled are receiving on the average $1,068 less than teachers in districts of 0-25 percent Mexican American pupils. (See column 4.) Unequal salaries, in turn, result in unequal distribution of qualified

TABLE 2-16. REVENUES, TEACHER SALARIES AND PERCENT WITH GRADUATE DEGREES BY PERCENT MEXICAN AMERICAN PUPILS ENROLLED IN TEXAS SCHOOL DISTRICTS, 1971-72

Percent Mexican Americans Enrolled[a]	(1) Local Rev/ADA[b]	(2) State Rev/ADA	(3) Local & State Rev/ADA	(4) Mean Teacher Salary[c]	(5) Pct. Teachers with MA or PhD	(No. of Pupils ADA 1971)
0 - 24.9	$412	$375	$787	$8,613	29.8%	(1,834,590)
25 - 49.9	429	387	816	8,165	21.6%	(172,883)
50 - 74.9	257	394	651	8,161	20.9%	(323,951)
75 - 100	192	379	571	7,545	12.3%	(156,080)

a) Percent Mexican Americans enrolled is from Department of Health, Education and Welfare, Fall, 1971, Title VI Survey.

b) Revenues per pupil in average daily attendance (ADA) are means, weighted by the number of pupils in ADA in each school district, for 1971-72. The data are from official audit reports of school district accounts.

c) Teacher salaries and degree levels are from personnel records of the Texas Education Agency for 1971-72.

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, teachers among districts of different ethnic compositions. There are

proportionately two and one-half times as many teachers with graduate

degrees in school districts with 0-25 percent Mexican Am.   "pils as

in districts of 75-100 percent Mexican American enrolled.   (See column 5).

In general, the greater the percent Mexican Americans enrolled in a dis-

trict, the less the quantity and quality of educational resources pro-

vided.

EXPLAINING THE RELATIONSHIPS

Now that it has been established that there is a direct relation-

ship between educational inputs and family income and ethnicity, these

relationships must be explained. The question that remains is whether

or not district property wealth accounts for the fact that the poor and

Chicanos receive less educational resources than the persons of higher

incomes and Anglos. If the economically disadvantaged and the ethnically

different receive less educational resources regardless of the property

value of their school districts, then the focus of the school finance

suits on fiscal inequities based on district wealth, has been misguided

and should be redirected to consider other factors.

Partial correlation analysis is a statistical technique that can

be used to factor out the effect of district wealth on the relationship

between individual wealth and educational resources. The partial correla-

tions between individual income and ethnicity and a few of the more

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important educational resources, holding constant district property values, are presented in Table 2-17. The following conclusions might be drawn from the table:

1. Holding <u>estimated market value</u> of property per pupil constant does not affect any of the relationships of income and percent Mexican Americans enrolled with indicators of school district inputs.

2. Holding <u>assessed value</u> of property per pupil constant almost completely eliminates the relationship between revenue per pupil from local and state sources and mean family income. The relationship of mean family income with mean teacher salary is reduced slightly, but the relationship remains moderate. Holding assessed value constant reduces the relationship between family income and percent of teachers with advanced degrees by about half.

3. Holding <u>assessed value</u> of property per pupils constant reduces somewhat the relationships between the resource indicators and percent Mexican Americans enrolled, but the relationships are not eliminated. The sizable relationship of percent Mexican Americans enrolled and percent teachers with advanced degrees is not affected by holding constant assessed value of property per pupil.

The conclusion reached from these analyses is that most of the relationship between income level of district residents and the amount of revenues for education is accounted for by the assessed property values

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TABLE 2-17. PARTIAL CORRELATIONS BETWEEN EDUCATIONAL INPUTS AND
            INCOME AND ETHNICITY, CONTROLLING FOR PROPERTY VALUE,
            ALL TEXAS SCHOOL DISTRICTS[a]

Indicators of School District Inputs	Mean Family Income	Pct. Mexican Americans
Local & State Revenue/Pupil		
Uncontrolled	.343	-.380
Controlling MV/ADA[b]	.429	-.383
Controlling AV/ADA[c]	.092	-.252
Mean Teacher Salary		
Uncontrolled	.475	-.377
Controlling MV/ADA	.496	-.355
Controlling AV/ada	.375	-.260
Pct. Teachers with MA or Ph.D		
Uncontrolled	.138	-.543
Controlling MV/ADA	.138	-.535
Controlling AV/ADA	.067	-.510

[a]All correlations are weighted by the number of pupils in average daily
attendance, 1970-71.

[b]MV/ADA is the estimated true market value of property in a district
divided by the number of pupils in average daily attendance, 1970-71.

[c]AV/ADA is the official assessed value of property in a district divided
by the number of pupils in average daily attendance, 1970-71.

in school districts. Assessed property value explains only part of the relationship between mean family income and teacher quality. Finally, the assessed value of district property does not account for the fairly high correlation between percent Mexican American and percent of teachers with graduate degrees. Apparently, there is something besides district wealth which explains why teachers of higher level degrees tend to be concentrated in districts with low ethnic density.

SUMMARY AND IMPLICATIONS OF FINDINGS

These analyses have explored the inequalities in educational input resources for public education by district wealth, personal income, and ethnicity. The frequently encountered skepticism about the sampling validity of previous research on fiscal inequalities in Texas was avoided by utilizing data on all school districts in Texas. By and large, however, the present analyses have verified the inequalities found in previous sample surveys by Berke (1974), the U.S. Commission on Civil Rights (1972b), and Brischetto and Arciniega (1973a).[14] Briefly summarized, the findings show:

1. The greater the school district's taxable wealth, the _lower_ the district's tax effort, the _greater_ the amount of revenue per pupil and the _higher_ the quality of educational services provided. .

2. Low-income families and Chicanos tend to live in districts

with lower assessed property valuations per pupil than higher income persons and Anglos.

3. The higher the income level of district residents, the greater the amount of revenue per pupil and the higher the average teacher's salary in the district.

4. The greater the proportion of Chicano pupils enrolled in a district, the lower the amount of educational revenues per pupil, the less the teachers' salaries, and the less the percent of teachers with advanced degrees.

5. The direct relationship between mean family income and the amount of local and state revenue per pupil can be largely accounted for by the assessed valuation of property in school districts.

6. While some of the relationship between percent Mexican Americans enrolled and local and state revenues can be explained in terms of the assessed value of property in districts, the strong relationship between ethnic composition and teachers' educational level is not explained by assessed property values.[15]

What then can be said about the future direction of school finance reform litigation in Texas in light of these findings? Evidence of discrimination against both Chicanos and the poor in general can be shown under the current system of funding education. Much, although not all of this inequality is due to the fact that educational revenues are

raised from property taxes within districts and Chicanos and the poor
tend to be located in districts with low assessed property values. These
local revenue disparities are not offset by state equalization aid. The
low revenue level of these districts is in turn accompanied by low qual-
ity of educational services provided to pupils.

Whether or not these inequalities are judicially manageable in
light of the Supreme Court's ruling on Rodriguez is an issue that must
be addressed by legal theoreticians. Having lost a case for fiscal
neutrality on the federal level, the strategies suggested by legal experts
seem to involve two assumptions: (1) that the legal theory in a new case
should differ considerably from that used in Rodriguez; and (2) cases
should be based on state constitutional provisions whenever possible.
The findings of this study indicate that the empirical data show enough
blatant inequality in Texas school finance juxtaposed on ethnic isolation
to offer support for a case of fiscal discrimination.

The findings also might be utilized in legislative efforts for
school finance reform. The implications of these findings for school
finance reform legislation seem to be that equalizing according to fiscal
capacity (as measured by assessed valuation per pupil) will eliminate
much of the inequalities which discriminate against lower-income families,
but only some of the discrimination against Chicano pupils. It is doubt-
ful that equalization of property wealth will improve the unequal distribution

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of qualified teachers for Chicano pupils.

Thus, if inequalities based on ethnic composition of school dis-
tricts are to be dealt with, they will have to be dealt with directly
and not only through equalization of fiscal capacity as measured by
property values.* In order to eliminate the current inequities disfavor-
ing districts with high concentrations of Chicano pupils an "ethnic
factor" might be built into state equalization formulas to provide more
state aid in these districts and to attract more qualified teachers.

FOOTNOTES

[1] The chief criticisms offered by Grubb and Michelson were: (1)
"Statistical significance" is not meaningful in the context of the re-
search on Connecticut since there was not a sample chosen but rather the
whole of the population; (2) the correlations presented should have been
weighted by the number of pupils enrolled in order to reflect the differ-
ent sizes of the school districts; (3) correlations with percent below
poverty were much smaller than with mean family income not because of the
lack of relationship but because of the lack of variation in percent poor
(1973: 556-559).

[2] Although slightly more than one-third of the school districts
in Texas have less than 300 pupils, only about 2 percent of all public
school children in the state are enrolled in these districts. Thus,
the income data are available for 98 percent of students in Texas.

[3] The number of school districts in Texas changes from year to
year because of consolidation. For the 1970-71 school year, there were
1,149 school districts, excluding special districts for exceptional chil-
dren and schools on military posts.

[4] For the complete listing of variables on file, see Brischetto
and Bush, A School Finance Data Base for Texas: A User Manual, 1974.

5 "Independent" and "dependent" are not used here in any strict statistical sense to necessarily infer causation; however, if cause-effect relationships could be adequately substantiated, the "independent" variables would be predicted causes and the "dependent" variables would be the predicted effects.

6. To respond to the criticism leveled by Supreme Court Justice Powell in his evaluation of the data presented by appellees in the Rodriguez case that only the few districts at the extremes on the wealth continuum showed differences in mean income and ethnicity in the direction predicted, categories for the present study were constructed to include equal numbers of pupils. The quintiles (or "market value fifths" or "income fifths" as they will be referred to in the discussion) present the mean value of each resource measure for each fifth of all students in the state, rank ordered according to the independent variable.

7 The mean value of the "dependent" variable was weighted by the number of pupils in each district. Since the mean is affected by extreme values and very small districts in Texas were found to have extreme values on many of the variables of the analyses, weighting by number of pupils minimizes the influence of these very small "outlier" districts. The size of the school districts must be entered into the analyses since it is the number of children, not the number of districts, affected by a particular fiscal condition that should be of concern.

8 Only Hawaii has a centralized state education system with no local school districts.

9 Data are from the President's Commission on School Finance, internal document, as reprinted in Berke, 1974: 74-75.

10 Comparisons were based on computations on data from the President's Commission on School Finance, 1972: 19, as reprinted in Reischauer and Hartman, 1973: 66.

11 "Effective tax rate" is the tax rate based on the estimated true market value of taxable property. It is computed by multiplying the tax rate on assessed valuation by the assessment-sale value ratio. The figures were obtained from: Texas School Finance Study Groups, 1972.

12 Market values per pupil are estimates obtained by dividing the assessed valuation per pupil by the assessment-sale value ratio. Assessment ratios were obtained from self-reports by school district superintendents to a questionnaire survey conducted by the Texas Education Agency. (See: Texas School Finance Study Groups, 1972.)

[13]This may be due to the fact that Blacks are concentrated in central cities, where the cost of education is higher. See Levin, Muller, and Sandoval, The High Cost of Education in Cities, 1973.

[14]Compare the findings of this paper with the findings of a 1969 survey of the Mexican American Education Study (USCCR, 1972b) particularly Table 4 for degree level, Table 7 for salaries, and Table 14 for expenditures by percent Mexican Americans enrolled. Also compare the present findings with a 1972 survey by Brischetto and Arciniega (1973b), specifically with Table 3-13 for revenues, Table 3-18 for teacher salaries, and Table 3-23 for degree level. Finally, compare the findings in this paper with those of Joel Berke used in the Rodriguez brief for the plaintiffs and discussed more thoroughly in his book, Answers to Inequity: An Analysis of the New School Finance, 1974.

[15]Whether or not these inequalities in educational inputs identified in this research are translated into inequalities in educational outputs or achievement cannot be determined since achievement data are not available in Texas school districts. This, hopefully, will be the subject of future research. What can be concluded from the present research, however, is that educational resources in Texas are distributed in a manner that discriminates not only against children living in property poor school districts but also against children from low income families and Chicanos. While the burden of poor educational resources is shared by low wealth school districts, it is shouldered more by poor children and ethnic minority pupils than by children of wealthy families and members of the dominant group.

CHAPTER 3

THE CASE FOR INEQUALITIES IN CALIFORNIA

Although Rodriguez was lost before the nation's highest court, the case after which Rodriguez was fashioned, Serrano v. Priest (5 Cal. 3rd 584 [1971]), has been successful in state courts in California. On April 10, 1974, Los Angeles County Superior Court Justice Bernard Jefferson, after five months of trial on the facts of the case, declared "that the California public school financing system . . . is invalid as a violation of the equal protection of the laws provision of the California Constitution."[1] If the decision is finally affirmed by the California Supreme Court as legal experts are predicting, the Serrano case will serve to demonstrate how--even in the shadow of the Supreme Court's ruling on Rodriguez--state courts can successfully mandate the principle of fiscal neutrality on the basis of state constitutional provisions.

This chapter examines empirically the inequalities alleged in the Serrano case and goes beyond the facts of the case to probe the relatively unexplored realm of fiscal inequities among school districts in California as they affect children from families of different income levels and ethnicity.

The Serrano case in retrospect

The case of Serrano v. Priest was originally filed in 1968 by John

Serrano, Jr., on behalf of his son, John Anthony Serrano, and the Los Angeles public school children and their parents. The suit charged that the state funding scheme "invidiously discriminates against the poor because it makes the quality of a child's education a function of the wealth of his parents and neighbors" (5 Cal. 3d 584 [1971] at 589, 618). The case was at first dismissed without trial for not stating a sufficient cause of action and a court of appeals upheld the dismissal.[2] Upon appeal to the California Supreme Court, the lower court's judgment was reversed and on August 30, 1971, the state's high court declared the system of school finance unconstitutional under the United States and California constitutions.

The script for the litigation and its theoretical justification had been primarily inspired by Coons, Clune, and Sugarman (1969, 1970). The legal approach was simple and straightforward, deliberately avoiding the non-judiciable aspects of the earlier "educational needs" cases.[3] The system of financing education in California was seen as creating a "suspect classification" by making the quality of a child's education dependent upon the collective wealth of his parents and neighbors. Furthermore, the court found that a "fundamental interest," education, was involved. Consequently, the court utilized the "strict scrutiny" test and found that the students and parents of property-poor school districts were deprived of equal protection of the laws under the U.S. and California

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and found that the students and parents of property-poor school districts

were deprived of equal protection of the laws under the U.S. and California

constitutions.[4]

,In order to test the facts of the case, the California Supreme
Court then remanded the case to the Los Angeles Superior Court for trial
on its merits. The trial, which began December 26, 1972, lasted five
months. A decision was finally rendered in favor of the plaintiffs and
California was again faced with the prospect of restructuring its sys-
tem of funding public education.

Although Serrano has been hailed repeatedly as a landmark case
in the search for equality of educational opportunity, there is consider-
able disagreement among the ranks of school finance reformers about the
possible effects of the Serrano decision. Some have argued that if the
court mandate for fiscal neutrality is taken literally, urban poor and
minority children may suffer from the solutions that follow (Singleton,
1972, 1973; Dimond, 1971; Yale Law Journal, 1972; Cohen, 1974; Carrington,
1973; Berke and Callahan, 1972; Morgan, 1973a). Others have argued that
teachers, not children, stand to gain from fiscal equality in the school
finance system (Moynihan, 1972; Carrington, 1973). Still others question
its overall impact on the quality of public education generally (Goldstein,
1972). If there is any consensus at all on the educational implications
of Serrano, it is that the battle for school finance reform is far from
being over; at least half of the battle remains to be fought in the state
legislature. Kirp and Yudof summarized well the open-endedness of the

Serrano mandate:

> Serrano is modest--unobtrusive, if you will--in prescribing a remedy.
> In effect, it says to the legislature, 'you cannot adopt a financing
> system which in operation makes the dollars available for education
> a function of the wealth of a community; beyond that, the choices
> are yours.' And the choices are essentially limitless (1971: 145).

The precise form that such legislation takes should be decided

only after its effects on poor and minority pupils is taken into consider-

ation. While the Serrano case discussed the impact of the California

school financing scheme on districts of different property values, no

examination was made of the impact on districts with residents of differ-

ent personal wealth or on districts of different concentrations of minor-

ity pupils.[5] It is this information gap which the present research at-

tempts to fill.

RESEARCH HYPOTHESES

The four basic research questions raised in the previous chapter

on Texas will be addressed for California. Without data on the quality

of educational services, however, hypotheses on the relationships between

quality of services and school district wealth, income and ethnicity can-

not be tested. The research questions and their accompanying hypotheses

are restated:

1. What is the relationship between the property value of a

school district-and the district's tax effort and educational expenditures?

Hypothesis 1A: The greater the per pupil property value of a school district, the lower its educational tax effort.

Hypothesis 1B: The greater the per pupil property value of a school district, the higher the per pupil revenues and expenditures.

2.   What is the relationship between the property value of a school district and the personal income and ethnicity of district residents?

Hypothesis 2A: The greater the per pupil property value of a school district, the higher the income level of school district residents.

Hypothesis 2B: The greater the per pupil property value of a school district, the less the proportion of minority group pupils enrolled.

3.   What is the relationship between the income level of school district residents and the tax effort and educational expenditures?

Hypothesis 3A: The higher the income level of school district residents, the lower the tax effort for education.

Hypothesis 3B: The higher the income level of school district residents, the higher the per pupil revenues and expenditures.

4.   What is the relationship between the ethnic composition of pupils in a school district and the tax effort and the amount of educational expenditures?

Hypothesis 4A: The greater the proportion of minority pupils enrolled in a school district, the higher the tax effort for education.

Hypothesis 4B: The greater the proportion of minority pupils

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enrolled in a school district, the lower the per pupil revenues and expenditures.

RESEARCH PROCEDURES

The same research procedures were followed in the analysis of the California as were described in the previous chapter on Texas with a few exceptions. One major difference is that not all districts are analyzed for California. In California, school districts are of three types: elementary, secondary, and unified (combined elementary and secondary) districts. Since educational costs, property values, and revenues differ considerably among the three types of districts, each type must be analyzed separately. The trend in California is toward consolidation of elementary and secondary districts to create an increasing number of unified districts. During the decade of the sixties, the number of unified districts doubled. There was corresponding decrease during that same period from 1316 to 726 elementary districts and from 221 to 120 high school districts (California State Department of Education, 1971, as cited by Singleton, 1973). As of the 1972-73 school year, 65.5 percent of all pupils in public schools in California were enrolled in unified districts. The 234 unified school districts in California in 1969-70 and in 1971-72 will be analyzed in the present research. The effect of excluding elementary and high school districts is to create a more homogeneous subset

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for analysis, particularly districts which are more likely to be larger in enrollment than the elementary or secondary districts.

Another difference, between the California and Texas analyses,[6] mentioned in the previous section, is the absence of measures of quality of educational services for California. Since these data were not readily available, they were not included in the analyses.

A third distinction between the data for California and Texas is in the accuracy of market value estimates. Since California school districts are required by law to assess property at 25 percent of true market value and to reevaluate their assessments regularly, the estimates of the value of taxable property are probably more accurate than those for Texas.

The methodological limitations of the California analyses are the same as those cited for Texas. The research does not consider such factors as intradistrict inequalities, differences in pupil needs and educational costs, municipal overburden, and educational outcomes. The net effect of excluding such factors from the analyses coupled with the fact that only unified school districts are examined is probably to understate the overall degree of inequality in school district wealth and expenditures.

THE MAGNITUDE OF INTERDISTRICT DISPARITIES

As the largest state in the union, California has the greatest

number of pupils enrolled. There were 4,435,000 pupils enrolled in public schools in California in the Fall of 1973. California had 1,123 school districts in 1973-74. Only two states had more school districts, Texas and Nebraska (National Education Association, 1974: 15, Table B-1).

Total public school revenue receipts per pupil were $1,614 during 1973-74, placing California seventh highest among the states and far above 35th ranked Texas with $1,060 per pupil (National Education Association, 1974: 48, Table G-2). Average teachers' salaries were higher in California than any other state except Alaska. With an estimated average teacher salary of $12,850 for 1973-74, California was far above the national mean of $10,673 and even farther above the mean for Texas which ranked 37th with $8,967 (National Education Association, 1974: 26, Table C-14). In short, education in California is among the best-funded in the country. Even so, there are still considerable inequalities among California school districts in educational expenditures. The ratio of high to low district expenditures per pupil for 1969-70 in California was 4.2 to 1. Although this is far less than the 20.2 to 1 ratio in Texas, there were only nine states with greater interdistrict disparities (Berke, 1974: 74, Table 3.2).

Table 3.-1 gives the low, high, and mean values and coefficients of variation for each of the variables to be examined in the analyses on California unified districts. Immediately apparent from examining the

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TABLE 3-1 MINIMUM, MAXIMUM, AND MEAN VALUES AND VARIATION OF SCHOOL
DISTRICT CHARACTERISTICS, ALL UNIFIED DISTRICTS IN
CALIFORNIA, 1971-72*

School District Characteristics	Minimum	Maximum	Pupil Mean[a]	Coefficient of Variation[b]
School District Inputs				
1. Total tax rate[c]	$ 1.65	$ 5.55	3.31	.201
2. Local Rev/Pupil	59	2,043	581	.370
3. State Rev/Pupil[d]			315	.196
4. L&S Rev/Pupil			896	.197
5. Fed. Rev/Pupil	1	1,000	75	.634
6. Total Rev/Pupil			972	.194
7. Total PPE	693	2,105	917	.184
8. Instructional PPE[e]	489	1,420	672	.173
Bases of Inequalities				
9. Prop. Val/Pupil[f]	1,808	90,661	13,221	.484
10. Mean Family Inc.	6,068	34,513	12,242	.192
11. Pct. in Poverty	1.3	72.9	8.5	.363
12. Pct. M-A Pupils	0.0	89.2	16.2	.699
13. Pct. Black Pupils	0.0	61.7	12.0	1.098

*Data are for 1971-72 with the exception of Mean Family Income and Percent
in Poverty, which are from 1970 U.S. Census.

(a) Pupil mean is the mean value for the state based on total number of
pupils in average daily attendance.

(b) Coefficient of Variation = $\dfrac{\text{Weighted Pupil Standard Deviation}}{\text{Weighted Pupil Mean}}$

(c) Total Effective Tax Rate is the general purpose school tax rate (in-
cluding tax for debt service and capital outlay) per $100 of equalized
assessed value of taxable property (equalized at 25 percent of true
market value).

(d) "State revenue" includes state non-categorical aid, state special edu-
cation aid, state compensatory aid, and state aid from other sources.

(e) "Instructional PPE" includes expenditures from local, state and federal
sources.

(f) Prop. Value/Pupil is modified assessed value of property equalized at
25 percent of true market value.

range of v ̇ ̇ ̇ fc ̇ the various measures of school district inputs is the fact that there is not as much disparity among unified school districts in California as were found among school districts in Texas (Table 2-2 in previous chapter). This may be accounted for in part by the fact that there are fewer unified school districts in California and these districts do not include the very small school districts which tend to have extreme values. Even so, the unified district with the highest expenditure per pupil is three times as great as the lowest expenditure district (and the high-low ratio in total effective tax rate is about the same (3.4).

As indicated by the coefficients of variation, the greatest amount of variation is found in federal revenue per pupil. However, federal funds consist of only 7., percent of all revenues and thus the disparity in federal fund allocation has very little effect on total degree of inequality in educational revenues. The next greatest variation is found in local revenue per pupil. Since local revenues account for as much as 59.8 percent of all revenues in unified school districts in California, the disparity in local funding is a major factor in determining inequalities in educational expenditures. The disparity in educational revenues is in turn accounted for chiefly by the inequality in the tax base. Property values per pupil have a high-low ratio of 50 to 1.

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The relationship between district wealth and the amount of revenue

available for education is at the heart of the complaint set forth by

plaintiffs in the Serrano case. In the first cause for action the com-

plaint states that:

> This public school system is maintained throughout California by a
> financing plan or scheme which relies heavily on local property taxes
> and causes substantial disparities among individual school districts
> in the amount of revenue available per pupil for the districts' edu-
> cational programs. Consequently, districts with smaller tax bases
> are not able to spend as much money per child for education as dis-
> tricts with larger assessed valuations (Serrano v. Priest, 5 Cal. 3d
> 584, 96 Cal. Rptr. 601).

As a result of the system of funding education, the complaint alleges,

"substantial disparities in the quality and extent of availability of

educational opportunities exist and are perpetuated among the several

school districts of the state . . ." (Serrano v. Priest, 5 Cal. 3d 584,

96 Cal. Rptr. 601).

In the second cause of action, plaintiff parents argue that they

"are required to pay a higher tax rate than taxpayers in many other school

districts in order to obtain for their children the same or lesser educa-

tional opportunities afforded children in those districts" (Serrano v.

Priest, 5 Cal. 3d 584, 96 Cal. Rptr. 601). Thus, if taxpayers in some

school districts are required to pay higher taxes than taxpayers of other

school districts in order to obtain equality of educational opportunity

they are thereby denied equal protection of the laws (Serrano v. Priest 5 Cal. 3d 584, 96 Cal. Rptr. 601).

The Pearson correlations in Table 3-2 support both causes of action in the Serrano complaint. School district wealth is inversely related to the general purpose tax rate. Although the correlation is relatively weak, there is a definite tendency for districts of higher property values to pay lower taxes and districts of lower property values to pay higher taxes. Of the correlations of per pupil property value of school districts with various indicators of district revenues and expenditures, the largest positive relationships with local revenue per pupil. About 80 percent of the variation in local revenue per pupil is accounted for by the variation in equalized assessed value of taxable property among the school districts. State revenue is found to have a strong inverse relationship with school district property value. But, perhaps because of the fact that state aid does not vary as much as local revenue, the direct relationship between district revenue and equalized assessed value per pupil is almost unaffected when state revenue is added to local revenue. The correlation between value and local and state revenue combined is .83. The addition of federal revenues depresses the correlation only slightly, yielding a correlation coefficient of a .80 between property value per pupil and total revenue per pupil.

Some of the same relationships are presented in a different manner

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TABLE 3-2. PEARSON CORRELATIONS OF PROPERTY VALUE PER PUPIL
WITH INDICATORS OF SCHOOL DISTRICT INPUTS, ALL
UNIFIED SCHOOL DISTRICTS IN CALIFORNIA, 1971-72*

Indicators of School District Inputs	Property Value Per Pupil**
1. Total Tax Rate	-.249
2. Local Revenue/Pupil	.892
3. State Revenue/Pupil	-.729
4. Local & State Revenue/Pupil	.832
5. Federal Revenue/Pupil	.085
6. Total Revenue/Pupil	.800
7. Total Per Pupil Expenditure	.765
8. Instructional PPE	.685

*All correlations are weighted by the number of pupils in average
daily attendance, 1971-72 (N= 2,930,474).

** Property value per pupil is the modified assessed value of real
property per pupil in average daily attendance equalized at 25
percent of true market value.

in Table 3-3. School districts are divided into approximate quintiles of pupils by equalized assessed market value of taxable property per pupil and the mean dollar value of the various measures of educational inputs is obtained. As can be seen from column 1, a small difference is found in tax rates among property value categories. Very sizable differences, however, are found in local revenue per pupil by property value fifths; in fact, the amount of local revenue available from local sources is two and one-half times as great in the wealthiest property value fifth as in the poorest property value fifth. The dollar gap between highest and lowest property value fifths is $536 per pupil. State revenues tend to be equalizing. However, the $169 difference in state aid (column 3) between the highest and lowest property value fifths is not nearly sufficient to offset the disparities in local revenues. Consequently, the wealthiest quintile averages $377 per pupil more in state and local revenue combined (column 4) than the poorest quintile. When federal revenues are added (column 5) the gap does not close as might be expected; instead, the difference between high and low property value fifths increases to $390.

In summary, the hypotheses associated with the first research question concerning the relationships between educational inputs and school district wealth are supported. There is a slight inverse correlation between school district property values and tax rate on property and

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TABLE 3-3   TAX, REVENUE DATA, AND EXPENDITURES FOR INSTRUCTION
BY QUINTILES OF ASSESSED VALUE PER PUPIL, ALL UNIFIED
SCHOOL DISTRICTS IN CALIFORNIA, 1971-72

Property Value Fifths[a]	(1) Total Tax Rate[b]	(2) Local Rev/ADA	(3) State Rev/ADA	(4) Local & State Rev/ADA	(5) Total Rev/ADA	(6) Instructional Expend/ADA	(N of Pupils in)
$15,255 or more	$ 3.21	$885	$234	$1,129	$1,214	$808	(584,667)
15,254-13,680	2.85	611	284	896	972	644	(795,443)
13,679-11,670	3.66	574	299	873	945	684	(409,315)
11,669- 8,387	3.64	469	355	824	893	640	(548,997)
8,386 or less	3.49	349	403	752	824	556	(592,052)

(a) Property value per pupil in average daily attendance (ADA) is the assessed valuations of property equalized at 25 percent of true sales value.

(b) Tax rates is effective tax rate obtained by equalizing the actual general purpose tax rate. It is expressed in cents per $100 of modified assessed value of property 9equalized at 25 percent of full market value).

(c) All means are weighted by the number of pupils in average daily attendance, 1971-72.

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a strong direct relationship between district wealth and the amount of revenue available for education. These findings simply confirm what is generally acknowledged about the system of financing education in 49 of the 50 states. The results provide a factual basis for plaintiffs' allegations in the Serrano case.

Changes in the distribution of revenues

It is also interesting to note the changes that occurred in the distribution of total revenues among districts of differing property values. Table 3-4 shows total revenues per pupil by property value fifths for 1970 and 1972. Within two years the gap between the highest and lowest property value fifths widened in absolute dollars from $238 to $390. Likewise, the relative position of the lowest property value fifth as a proportion of the highest property value fifth decreased from three-fourths in 1970 to two-thirds in 1972. The net change in total revenues per pupil from 1970 to 1972 in the highest property value fifth was $251, whereas the change in the lowest property value fifth was only $99. This represents a 26 percent increase in revenues for education for the fifth of pupils in the wealthiest districts, approximately twice as much as the 13.7 percent increase in revenues for the fifth of pupils in the poorest districts. In short, the gap in revenues between property-rich and property-poor districts widened considerably between 1970 and 1972.

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TABLE 3-4   TOTAL REVENUE PER PUPIL FOR 1969-70 AND 1971-72
              BY QUINTILES OF PROPERTY VALUE PER-PUPIL FOR ALL
              UNIFIED SCHOOL DISTRICTS IN CALIFORNIA

Property Value Fifths	Total Revenue 1969-70	Per Pupil By Year* 1971-72	Net Change 1970 to 1972	Percent Change
1. (highest)	$963	$1,214	+ $251	+ 26.1%
2.	838	972	+ 134	+ 16.0
3.	794	945	+ 151	+ 19.0
4.	747	893	+ 146	+ 19.5
5. (lowest)	725	824	+ 99	+ 13.7

*All means are weighted by the number of pupils in average daily attendance
during the school year. Each category has approximately one-fifth of all
public school pupils enrolled in California unified school districts.

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RESEARCH QUES. 2: DISTRICT WEALTH AS RELATED
TO INCOME AND ETHNICITY

When the _Serrano_ case came before the California Supreme Court

in 1971, census data on personal income by school district boundaries

were not yet available. The chief architects of the fiscal neutrality,

argument noted in reflection on the decision that:

> it is likely that the proof required at trial will be confined to
> the wealth of school districts. . . . At present it is very dif-
> ficult to specify the degree to which personal and school district
> wealth coincide. The economists seem confident that the relation
> is positive, but the anomalies are frequent and sometimes embarrass-
> ing (Coons, Clune, and Sugarman, 1971: 114).

Indeed, the evidence presented at trial was confined to inequali-

ties based on school district wealth rather than personal wealth. The

California Supreme Court accepted without question the assumption that

"there is a correlation between a district's per pupil assessed valuation

and the wealth of its residents . . ." (5 Cal 3d 584 [1971]). This rela-

tionship, however, was never empirically demonstrated in court and the

question remains unanswered.[7]

As indicated in the previous chapter, the empirical question about

the relationship between individual and district wealth must be explored

separately for each state. The relationship found in one state cannot be

safely generalized to another state. It has been only in the last two

years that research on the relationship between personal income and dis-

trict property wealth has been forthcoming because of the recent

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availability of census data by school district boundaries. The preliminary

analyses that have been reported show mixed results. Grubb and Michelson

found(sizable correlations of (.58 to .78) between property valuation per

pupil and both mean family income and percent below poverty for Maryland

and South Carolina (1972: 558). Correlations for Massachusetts were

somewhat lower: property wealth correlated -.25 with percent poor families

and .44 with mean family income (Grubb and Michelson, 1973: 558). In the

Yale study of Connecticut, property valuation per pupil was found to be

correlated .59 with mean family income, but only -.14 with percent below

poverty (Yale Law Journal, 1972: 1237).[8] The correlation between the

various measures of income and estimated market value per pupil was found

in the present study to be low for Texas as a whole, but moderate to high

(ranging from .44 to .64 depending on the measure of income employed) in

non-rural areas (districts with less than 10 percent rural populations).[9]

In Kansas a negative correlation was reported between assessed valuation

per pupil and mean family income, indicating that low-income persons tend

to be located in high property wealth areas (Ridenour and Ridenour, 1972:

213-226).

The correlations for California between district property wealth

per pupil and percent in poverty and mean family income are shown in

Table 3-5. The correlation between property wealth and percent in poverty

is very low (.106). This may be due to the fact that, as in the case of

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TABLE 3-5.   PEARSON INTERCORRELATIONS AMONG INDICATORS OF DISTRICT
              WEALTH, INCOME AND ETHNICITY, ALL UNIFIED SCHOOL
              DISTRICTS IN CALIFORNIA, 1971-72*

	Property Value Per Pupil	Pct. in Poverty	-Mean Family Income	Pct. MA Enrolled
1. Pct. in Poverty	.106			
2. Mean Family Inc.	.234	-.609		
3. Pct. MA Enrolled	-.083	.503	-.343	
4. Pct. Black Enrolled	.215	.418	-.073	.063

* All Correlations are weighted by the number of pupils in average daily
attendance.

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Connecticut, there is very little variation in percent below poverty.

Only 8.5 percent of families in California unified school districts

fall below the official federal poverty line.

The correlation of .234 between property wealth and mean family

income is low, although somewhat larger than the correlation with per-

cent in poverty. This indicates that, as in the case of Texas, the cor-

respondence between individual income and district property wealth is

not strong and the lawyers in the Serrano case were strategically wise

to focus on district wealth exclusively in court.

RESEARCH QUESTION 3: INEQUALITIES
BASED ON INCOME LEVEL

How do persons of different income levels fare in the current sys-

tem of raising and distributing educational revenues in California? Such

a question was judiciously avoided in the fiscal neutrality suits for at

least three reasons. First, there were not sufficient data available to

shed light on the relationship between poor persons and poor districts.

Secondly, if the legal argument was to be kept simple, the complexities

of the individual-district wealth relationship were best left unexplored.

Thirdly, the charge of discrimination on the basis of district wealth as

opposed to individual wealth, according to Coons, Clune, and Sugarman,

"may provide unexpected political support from the nonpoor who live or

own property in poor districts" (1971: 114).

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Now that income data are available by school district attendance.

areas and the legal issues have been argued in court, two of the three

reasons for skirting the question of the relationship between poor peo·

ple and poor districts have been eliminated. Of greater importance at

this point in the school finance reform movement is rather to identify

who is injured in the school finance system in California.

Table 3-6 presents Pearson correlations between two income meas-

ures and the various indicators of school district inputs for all uni-

fied school districts during 1971-72. There is a small positive corre-

lation between total effective tax rate and mean family income, indi-

cating that taxes tend to be higher in high-income areas than in low-

income areas.[10] This finding does not support Hypothesis 2A that low

income persons are located in districts with higher school tax rates

than are high income persons.[11]

The remainder of the correlations between mean family income and

district revenues and expenditures are in the direction predicted and of

about the same magnitude as those found in the analysis of Texas school

districts. Local revenues tend to be higher in school districts with

residents of higher incomes. Although revenues from state sources are

slightly greater in districts with residents of lower mean family incomes,

the magnitude of the relationship between revenue per pupil and mean

family income is almost not affected at all when state and local revenue

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TABLE 3-6   PEARSON CORRELATIONS OF INCOME MEASURES WITH INDICATORS
            OF SCHOOL DISTRICT INPUTS IN ALL UNIFIED SCHOOL DISTRICTS
            IN CALIFORNIA, 1971-72*

Indicators of School District Inputs	Mean Family Income	Pct. in Poverty
1. Total Tax Rate	.219	-.361
2. Local Revenue/Pupil	.335	-.010
3. State Revenue/Pupil	-.230	-.073
4. Local & St. Rev./Pupil	.328	-.038
5. Federal Revenue/Pupil	-.366	.531
6. Total Revenue/Pupil	.214	.099
7. Total PPE	.203	.107
8. Instructional PPE	.225	.033

* All correlations are weighted by the number of pupils in average
  daily attendance, 1971-72. (N=2,930,474)

are combined. Federal revenues also tend to be distributed in an equal-
izing way, but since they constitute such a small amount the relation-
ship between total revenue per pupil and mean family income is only
slightly weaker than the relationship with local and state revenues com-
bined.

The correlations of revenues and expenditures with percent below
poverty are generally very low, with the exception of federal revenue
per pupil. Since federal aid consists largely of Title I funds which
are distributed according to the number of pupils below poverty, this is
not a surprising correlation; in fact, one would expect it to be even
larger than .531. The low correlations with percent of persons below
poverty, as mentioned above, may be due to the fact that there is very
little variation in the values for the proportion of persons below poverty
in California. Without much variation in percent below poverty, the cor-
relations with that variable would also tend to be low.

The mean values of input characteristics by mean income fifths
are presented in Table 3-7. There are no large differences in tax rates
among the various income categories. Local revenue is $158 per pupil
greater in the highest income fifth than in the lowest income fifth.
This difference is only moderated slightly by state aid. Since there is
only a $29 per pupil difference between the highest and lowest income
fifths in state revenues per pupil, the gap for local and state revenue

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TABLE 3-7   TAX RATE, LOCAL AND STATE REVENUES, AND INSTRUCTIONAL EXPENDITURES PER PUPIL, 1971-72, BY MEAN FAMILY INCOME OF DISTRICT RESIDENTS, 1969, ALL UNIFIED SCHOOL DISTRICTS IN CALIFORNIA

Mean Income Fifths[a]	(1) Total Tax Rate[b]	(2) Local Rev/ADA	(3) State Rev/ADA	(4) Local & State Rev/ADA	(5) Instruct. Expend./ADA	(N of Pupils in ADA)[c]
$12,578 or more	$3.82	$626	$315	$938	$685	(586,283)
12,677 - 12,400	2.84	661	290	951	678	(827,355)
12,399 - 11,923	3.59	602	316	918	705	(346,715)
11,922 - 10,752	3.35	524	323	846	666	(589,629)
10,751 or less	3.26	468	344	812	637	(580,492)

(a) Mean family income is from 1970 census data on school districts.

(b) Tax rate is the general purpose tax rate which includes monies for debt service and capital outlay. It is expressed in cents per $100 of modified assessed valuation of real property (equalized at 25 percent of market value).

(c) All means are weighted by the number of pupils in average daily attendance, 1971-72.

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combined is $126 per pupil. The differences in instructional expenditures are not as large. Generally, the inequalities in educational revenues for California unified school districts show a clear pattern in which pupils from low income families receive less than pupils from families of higher incomes.

RESEARCH QUES. 4: INEQUALITIES BASED ON ETHNICITY

In their original formulation of the fiscal neutrality doctrine, Coons, Clune and Sugarman deliberately avoided the inclusion of racial and ethnic bias in their argument. From the preliminary data available to them, minority pupils on the average in California seemed to be located in districts of greater wealth and hence with higher expenditures than the average for the state. In a footnote they remark that:

> If racial discrimination were measured by the percentage of all minority students who reside in districts below the statewide median AVPP (Assessed Valuation Per Pupil), California would manifest inverse discrimination. Fifty-nine percent (689,919) of minority students live in districts above the median AVPP. The percentage is considerably higher for Negroes; Indians and those with Spanish surnames are nearly evenly divided above and below the median (1970: 357, n. 47).

Thus, interdistrict inequalities in school financing, they contend, do not seem to be evident along racial lines in California. "There may well be very significant racial/dollar discrimination within districts," they concede, "but that is another problem; to lump it with interdistrict discrimination is totally misleading" (1970: 356-357).

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In light of these facts, the implications of a simplistic fiscal
neutrality solution to interdistrict inequalities have led a number of
minority spokesmen to question the value of the Serrano decision for
minorities and even suggest that it may have deleterious consequences.
Robert Singleton, Director of the Education Finance Reform Project in
Los Angeles, notes that:

> . . . most minorities are concentrated in the cities. Cities lack
> adequate fiscal capacity while they face extraordinary fiscal burdens.
> Worse still, cities face exceptional education need burdens while
> their costs of delivering the same educational inputs is greater.
> . . . Serrano-type cases may actually aggravate the situation minor-
> ities in the cities face because they fail to specify that the legis-
> lative response must consider these factors. As a result of some
> of these problems a review of the simulations of bills introduced in
> the California legislature during the 1972 session shows that most
> leave the minority population worse off (1973: i-ii).

The average assessed value of taxable property per pupil for
each ethnic group in California elementary, secondary and unified school
districts is shown in Table 3-8 (Singleton, 1973: 6). High school dis-
tricts generally have higher assessed valuations per pupil than elementary
or unified districts. This is not surprising since high school districts
also have fewer pupils enrolled per family than in the other two types of
districts. What is noteworthy is that in the unified districts, which
include 70 percent of the pupils in the state, Blacks are in districts
with a higher average assessed value per pupil than either Anglos or
Mexican Americans. This is not the case for elementary districts, which
are more likely than unified districts to be located outside central

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TABLE 3-8   AVERAGE ASSESSED VALUE BY ETHNIC GROUP
             AND KIND OF DISTRICT
             (Amounts are dollars per fiscal ADA for 1972-73)

Ethnic Group	Elementary Districts	High School Districts	Unified Districts
Anglo	$ 18,135	$ 42,238	$ 13,935
Black	14,036	42,772	14,824
Spanish Surname	16,291	39,469	13,607
Oriental	18,500	43,064	17,094
Native American	24,072	52,471	15,102
Other Minority	15,896	33,859	17,453

Source: Senate Select Committee on School District Finance,
          as reported in Singleton, 1973, Table 1.

cities. In elementary districts Blacks have a lower assessed valuation

than either Anglos or Mexican Americans. And while assessed valuations

are higher for Anglos and Mexican Americans in elementary districts than

they are in unified districts, the reverse is true for Blacks. Given

the fact, however, that Blacks are chiefly located in unified districts,

their district wealth is on the average somewhat higher than that of

Anglos or Mexican Americans. This suggests that expenditures may also

be higher for Blacks than for other ethnic groups in California.

Table 3-9 presents the Pearson correlations of percent of each

ethnic group enrolled with the various indicators of school district in-

puts. What immediately becomes clear is the fact that the situations·

for Blacks and Chicanos differ considerably. The greater the percent

Mexican American enrolled in a district, the lower the effective tax rate

and the lower also the amount of revenue per pupil. The correlations are

not high, but they are consistently in the direction predicted with the

exception of only the tax rate. For Blacks, however, a very different

pattern of relationships is found. While the effective tax rate tends

to be lower in districts with higher proportions of Black pupils, the

revenues and expenditures are generally higher in these districts. The

higher the percent Blacks enrolled, the higher the local revenue per

pupil, the lower the state aid per pupil, the higher the federal aid per

pupil, and the higher the total revenue per pupil. Almost the exact re-

verse is true for the proportion of Anglo pupils enrolled.

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TABLE 3-9   PEARSON CORRELATIONS OF ETHNIC COMPOSITION OF SCHOOL
              DISTRICT WITH INDICATORS OF SCHOOL DISTRICT INPUTS,
              ALL UNIFIED SCHOOL DISTRICTS IN CALIFORNIA, 1972-73*

Indicators of School District Inputs	Pct. Mexican American Pupils	Pct. Black Pupils	Pct. Anglo Pupils
1. Effective Tax Rate	-.234	-.268	.344
2. Local Revenue/Pupil	-.124	.354	-.241
3. State Revenue/Pupil	.015	-.230	.176
4. Local & St. Rev./Pupil	-.146	.350	-.232
5. Federal Revenue/Pupil	.056	.539	-.458
6. Total Revenue/Pupil	-.122	.465	-.333
7. Total PPE	-.134	.473	-.332
8. Instructional PPE	-.188	:375	-.225

* All correlations are weighted by the number of pupils in average
  daily attendance, 1972-73.   (N=2,930,474)

A closer examination of the relationship between percent Mexican Americans enrolled and selected measures of inputs into the educational system is accomplished in Table 3-10. A consistent pattern of inequalities is found based on the percent Mexican Americans enrolled one very similar to that found in Texas. Districts with higher concentrations of Chicano pupils have lower revenues and expenditures per pupil, especially those districts with 75-100 percent Mexican Americans enrolled. But although the pattern is clearly one of discrimination against pupils in districts of large proportions of Chicano pupils, a closer look indicates that, unlike Texas, very few Chicano pupils in California are in districts wherein they constitute the majority. Whereas in Texas over two-thirds of the Chicano pupils were located in predominately Chicano districts, only 15 percent of the Chicano pupils in California unified school districts are located in such districts. Thus, the combination of low revenues and ethnic isolation does not occur in California as it does in Texas. Inequalities might be found to be greater between schools within districts than between districts.

The problem of obtaining a clear picture of the amount of expenditures on Black pupils in California school districts is even greater than for Chicano pupils since Blacks are so heavily concentrated in large urban school districts. More than half (51.6 percent) of the Black pupils enrolled in unified school districts during 1971-72 were located in the

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TABLE 3-10   TAX RATE, LOCAL AND STATE REVENUES, AND INSTRUCTIONAL EXPENDITURES PER PUPIL, 1971-72, BY PERCENT MEXICAN AMERICANS ENROLLED, ALL UNIFIED SCHOOL DISTRICTS IN CALIFORNIA

Percent Mexican Americans Enrolled	(1) Total Tax Rate[a]	(2) Local Rev/ADA	(3) State Rev/ADA	(4) Local & State Rev/ADA	(5) Instruct. Expend./ADA	(N of Pupils in ADA)[b]
0 - 24.9	$3.29	$585	$315	$900	$674	(2,667,047)
25 - 49.9	3.71	548	322	870	656	(192,138)
50 - 74.9	3.13	547	308	855	641	(65,310)
75 - 100	2.61	106	439	544	563	(5,979)

(a) Total tax rate is the general purpose tax rate which includes monies for debt service and capital outlay. It is expressed per $100 of modified assessed valuation of property (equalized at 25 percent market value).

(b) All means are weighted by the number of pupils in average daily attendance, 1971-72.

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state's two largest districts, Los Angeles Unified School District and San Diego Unified School District. Because of this, the between-district variation in any of the school district input measures is very small for Blacks. When this is coupled with the fact that most segregation of minorities occurs more _within_ than _between_ school districts, then it becomes clear that the research on inequalities in educational opportunities for minorities in California should be focused not on _interdistrict_ disparities but on _intradistrict_ inequalities.

SUMMARY AND IMPLICATIONS OF FINDINGS

The findings of the analyses on California indicate that: (1) there are indeed large interdistrict disparities in school district wealth; (2) educational revenues and expenditures are very strongly correlated with school district property wealth; (3) educational revenues and expenditures are directly related to a lesser degree to the income level of district residents; and (4) the fiscal situation of Black pupils differs from that of Chicano pupils thus necessitating a separate analysis of each group. In the case of Chicano pupils, there is a small inverse correlation between school district expenditures per pupil and the proportion of Chicano pupils enrolled. The opposite is true for Black pupils. If the relationship between percent Blacks enrolled and educational expenditures is examined more carefully, expenditures are found

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to be higher for school districts where Black pupils are concentrated.[11]

What are the implications of these findings for the impact on minorities of a fiscal neutrality solution to problems of inequities in school finance in California? A simple leveling of educational expenditures among districts would not benefit Chicano pupils appreciably and would actually hurt Black pupils. Of course, very few proposed fiscal neutrality funding schemes involve a simple leveling; usually they entail a "leveling up." Even "leveling up", however, would jeopardize the relative position of Black pupils vis-a-vis Anglo pupils in the educational finance system (Singleton, 1973). Since these districts bear greater non-educational tax burdens, higher operating costs, and at the same time have greater numbers of pupils with special educational needs, it is important that these factors be taken into consideration in any interdistrict redistribution formula.

Defining fiscal capacity in terms of property wealth ignores the important influence of non-education spending on the amount of dollars available for education. Two districts might very well have identical amounts of assessed valuation of taxable property per pupil and expend very different amounts of municipal services. Although such municipal services costs in themselves have nothing to do with education, they do affect the total amount of dollars that are available for schooling. This problem of "municipal overburden" particularly affects central

cities where residents pay a disproportionately large share of their tax dollar for many services such as health, welfare, and safety which are not so costly in suburban areas and from which suburban commuters derive benefits without sharing the costs.[12]

Educational costs are also higher in central cities because of the higher cost of land and insurance, greater unionization and thus higher construction costs and teacher salaries, and higher rates of vandalism (Singleton, 1973; Callahan, Wilken & Sillerman, 1973; Levin, Muller & Sandoval, 1973). Unionization is more characteristic of large urban areas thus resulting in higher labor costs for school construction and maintenance and higher teacher salaries. There is also the problem of higher rates of vandalism in the urban core.

Finally, educational needs are much greater in the cities where minority group children are more likely to be found. The educational research on pupil achievement is in agreement on at least one finding-- that minority pupils who are concentrated in urban areas do consistently worse in all measures of achievement than, do middle class members of the dominant group who are more likely to be found in suburbs (Coleman, et al., 1966; Mayeske, 1972; Averch, 1972). In order to offset these educational deficiencies, attention must be given to meeting the special needs of pupils in these areas.

If the analysis of disparities in California accomplishes nothing

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else, it should impress upon legislators and public policy-makers the importance of considering factors other than the property wealth of school districts in their efforts to achieve equality in funding. A simplistic scheme for equalizing fiscal capacity based on school district property wealth alone will not solve the problems encountered by minorities if carried out in the absence of considering such factors as cost differences, special educational needs, and municipal overburden; in fact, such a solution may actually create problems for minority pupils.

FOOTNOTES

[1] Superior Court of County of Los Angeles, Doc. No. 938,254, April 10, 1974.

[2] In response to the original filing of the complaint, the state filed general demurrers. A Los Angeles trial court sustained the demurrers and, when plaintiffs failed to amend, ordered that the case be dismissed. The dismissal was upheld by the court of appeals.

[3] The earlier "educational needs" cases would include: McInnis v. Shapiro, 293 F. Supp. 327 (ND, Ill. 1968) affd, sub nom. McInnis v. Ogilvie, 394 U.S. 322 (1969) and Burrus v. Wilkerson, 301 F. Supp. 1237 (WD Va. 1968), 310 F. Supp. 572 (WD Va. 1969), affd., 376 U.S. 44 (1970).

[4] Thus, essentially the same argument that lost before the U.S. Supreme Court in Rodriguez, (411 U.S. 1 (1973) based on the federal constitution was won a year later in Serrano based on the state constitution.

[5] Since the data used in the present analyses are for 1972-73, the impact of more recent legislation--specifically S.B. 90 of 1972 and A.B. 1267 of 1973--on the distribution of educational expenditures cannot be determined. The reader is referred to recent Los Angeles Superior Court's opinion of April 10, 1974, for a discussion of the implications of these legislative measures: ". . . under SB 90 and AB 1267, the pupils of low-wealth school districts such as Baldwin Park are being

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forced to attend schools that are offering them a much lower quality of educational programs and opportunities that is being offered to the pupils who attend schools in California's high-wealth school districts such as Beverly Hills."

...he data were obtained from the Childhood and Government Project of the University of California at Berkeley Earl Warren Legal Institute. W. Norton Grubb and Paul Goldfinger were instrumental in preparing the data for analysis.

[7]What little empirical evidence there was for the relationship between personal and district wealth was apparently ignored by the California Supreme Court. See: Davis, 1967.

[8]The lower correlation, however, has since been explained by Grubb, and Michelson as a result of the fact that there is little variation in the percent of families below poverty. In Connecticut only 5.3 percent of all persons in families in 1969 were below the federal poverty guidelines. Correlations in the study of Connecticut were further depressed by the use of unweighted correlations (Grubb and Michelson, 1973: 558).

[9]See Table 2-5 in Chapter 2 above for these correlations.

[10]There has been some speculation that the correlation between income level of district residents and tax rate would be low because of the fact that high-income families are more apt to send their children to private schools and less likely to vote higher public school taxes. However, research by W. Norton Grubb, an economist at the University of California at Berkeley, indicates that if all private schools were abolished in California, the local tax yield per pupil would increase by only about $50.

[11]This is not to say that the total tax effort (including non-educati al taxes) is lower for low income persons than for high income persons. In fact, there is reason to believe that low income persons in central cities make a greater overall tax effort due to "municipal overburden." (Levin, et al., 1972; Sacks, 1973).Furthermore, when considered in terms of ability to pay taxes, the poor find it much more difficult to pay taxes since they have much less money available for tax purposes and thus their tax burden is greater. (Goldstein, 1974: 11).

[12]See Levin, et al., 1972 and Sacks, 1973 for discussion of municipal overburden.

CHAPTER 4

SUMMARY AND POLICY IMPLICATIONS OF FINDINGS

This volume reports the findings of the Southwestern Schools,
Study on inequalities in the distribution of educational resources in
California and Texas and is the second part of a two-phase study. The
first phase of the research consisted of: (1) a secondary analysis of
data gathered in 1969 by the U.S. Commiss. on Civil Rights in question-
naire surveys of district superintendents and school principals in the
five Southwestern states; and (2) a 1972 questionnaire survey of district
superintendents in the Southwest conducted by the authors. In the second
phase of the research, 1970 census data on school districts were merged
with official state department of education data on all school districts
in Texas and all unified school districts in California to provide more
extensive analyses of these states.

The first phase of the research revealed that inequalities in
the distribution of educational resources exist in the Southwest such
that Chicano pupils and children of low-income families have access to
fewer educational resources than Anglo children and children from high-
income families. The second phase of the research confirmed the relation-
ships found in the sample surveys with more detailed and thorough findings
on Texas and California. Perhaps the most impressive fact is that data
gathered from different sources have consistently confirmed that inequal-
ities in educational resources discriminate against Chicanos and the
poor.

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INEQUALITIES IN TEXAS AND CALIFORNIA

It was the revealing of wide disparities based on ethnicity in
the two previous surveys of the Southwest that spurred a more extensive

examination of Texas and California, in which 82 percent of all Chicano

pupils in the Southwest are located. The more detailed analysis of all

school districts in Texas and all unified school districts in California

support the findings of the two previous surveys and provide more

thorough and definitive data on inequalities within these states which

can be used for comparisons.

Inequalities based on district wealth

The findings revealed a high degree of inequality in property

wealth among school districts in both Texas and California. These wealth

disparities are related to inequalities in educational resources. As pre-

dicted, the property wealth of school districts in both states was found

to be inversely related to tax effort and directly related to the amount

of educational revenues and expenditures per pupil. For Texas, data

were available to indicate that the greater expenditures in wealthy

school districts were translated to some extent into higher quality edu-

cational services as measured by teachers' salaries and experience and

pupil-teacher ratio.

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Property wealth as related to income and ethnicity

School district wealth as measured by assessed value or taxable property per pupil is in turn directly related to the income level of school district residents in both Texas and California. When controls are made for rural-urban differences in Texas, the relationship is found to be considerably higher in non-rural areas. The relationship between district wealth and ethnicity is not a simple one. While the assessed value of school district property is inversely related to the percent Chicano pupils enrolled, it is directly related to the percent Black pupils.

Inequalities based on personal income

The fact that low-income people tend to be situated in property poor school districts in both Texas and California--even though the correlation is not very high there is a far from perfect correlation--explains to some extent the finding that children of poor families attend districts with lower educational expenditures and with lower quality educational services. Also contributing to lower educational expenditures in low-income districts is the fact that school taxes are somewhat lower in these districts. While the relationships between school tax rate and mean family income were not very large in either Texas or California (.31 and .22 respectively), they were the opposite of what was hypothesized: high-income school districts generally have higher school taxes

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than low-income school districts. However, in order to dr. definite

conclusions about the relative tax effort of low-income d high-income

families, further investigations ? e needed to determine: (1) the dif-

ferential effect of property assessment practices on domestic and com-

mercial-industrial property; (2) differences in the non-school tax burden

on families of different incomes; and (3) the amount of money available

for tax purposes by families of different income levels.

The correlations between mean family income of district residents

and the amount of expenditures per pupil for education are very similar

in Texas and California. The correlations of income level with local

revenue per pupil are relatively large (.40 in Texas and .34 in California).

While state aid in both states is inversely related to income level of

district residents, the equalizing impact is found to be very small when

local and state revenues are combined. Thus, state aid formulas in Texas

and California do not remove the deleterious effects of an inequitable

pattern of local revenues on low income persons. Federal revenues do a

better job of equalizing among school districts of different mean family

incomes. However, because federal funds constitute less than 10 percent

of total district revenues, even when federal aid is included, there re-

mains a direct relationship between total revenue per pupil and mean

family income among school districts in both Texas and California.

The unequal distribution of educational revenues is also reflected

in the quality of educational resources provided. In Texas, the mean

family income of school districts is fairly strongly related to mean

teacher salary and to a lesser extent to the degree level of teachers.

Teacher experience and pupil-teacher ratio, however, are not related to

mean income level of district residents as predicted. Although compara-

ble measures of equality of educational inputs were not available for

California, a small direct relationship was found between instructional

expenditure per pupil and mean family income.

When income level of district residents is measured in terms of

the percent of persons in families below the federal poverty level, there

is an important difference between Texas and California. While in Texas

the correlations of school district inputs with percent in poverty are

of approximately the same magnitude as correlations with mean family in-

come, the correlations with percent in poverty in California are very

low, almost approaching zero. This might be accounted for by the fact

that the percentage of persons below the official federal proverty line

in California is very low overall and thus there is not much variation

in this measure.

Inequalities based on ethnicity and race

One very clear lesson learned from the analyses of inequalities

in educational resources based on ethnicity in Texas and California is

that each ethnic minority should be examined separately since the fiscal

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situations of predominately Black and Chicano districts are very differ-
ent. In general, the greater the percent Mexican Americans enrolled,
the less the educational resources available. The opposite, however, is
true for Blacks. In both Texas and California, the percent of Blacks
enrolled in districts was directly related to the amount of revenues
available for education. The correlation is somewhat stronger in
California than in Texas, but the general pattern is the same.

It is very difficult to draw any definite conclusions from the
analyses of educational resources available to Black pupils as compared
to Anglos. In Texas two-thirds of the Black pupils in the state are
concentrated in the three largest school districts. In both Texas and
California Blacks reside primariiy in large urban centers. While the
analyses indicate that the educational expenditures are higher in school
districts with high proportions of Black pupils enrolled, they do not
take into consideration the higher cost of education and the municipal
overburden in central cities. Further research is needed on the influ-
ence of such factors on the quality of educational services provided.

A very clear case for an inequitable distribution of educational
resources available to Mexican Americans compared to the dominant Anglo
group can be made in Texas. Districts with greater percentage Mexican
American pupil enrollments have higher tax rates yet lower educational
revenues and poorer quality of educational services. The results of

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this discrimination is particularly apparent with respect to educational level of teachers: there is a strong inverse relationship between percent of teachers with graduate degrees and percent Mexican American pupils enrolled in Texas school districts.

While the same general pattern of inequalities in educational expenditures based on the percent Mexican American .pupils enrolled is found in California, there is an important difference between the two states. In Texas Chicano pupils are ethnically isolated. Over two-thirds of all Chicano pupils in the state are concentrated in districts where the majority of pupils are Chicanos. This allows for easy estimation of the extent of discrimination in the distribution of educational resources. In California approximately 2 percent of all pupils are in districts in which the majority of pupils are Mexican Americans. Thus, without much variation in the proportion of Mexican American Pupils enrolled it is difficult to determine how the distribution of educational resources actually effects Mexican American pupils. Intra-district analyses are-needed.

IMPLICATIONS FOR PUBLIC POLICY

The implications of the findings of this study for public policy can be discussed in terms of three different goals that might be adopted in the effort to achieve equality. The first goal has to do with equal

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access to educational resources and eliminating fiscal discrimination
against minorities, the poor, or other disadvantaged classes; the second
relates to the question of achieving equality of educational benefits
or outcomes among ethnic groups and social classes; and the third is
goal of lessening economic inequalities among ethnic groups and social
classes in society. These goals are separated here not because they
are unrelated, but because they have been so frequently confused in the
literature on equal educational opportunity.

The goal of equal access

The goal of equal access is essentially aimed at eliminating
deleterious inequities in access to quality education. The principle
which provides the rationale for adopting those policies that will ac-
complish this goal is that of distributive justice. The principle of
justice is best operationalized, however, in terms of claims of injustice.
As Green suggests:

> The claims that a specific practice or policy is just will seldom
> constitute sufficient grounds for its adoption. But, on the other
> hand, the claim that a specific policy or practice is unjust might
> often constitute sufficient grounds for its abandonment and for the
> abandonment of any alternative that is likewise unjust (1974: 80-
> 81).

The present research indicates equal access to quality education
among the various ethnic and income groups is not at all characteristic
of school systems in the Southwest. Unlike the results of Coleman's
analyses (1966), which did not find clear-cut inequalities in educational

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resources and services between majority group members and members of the
various minorities, the present research revealed that inequalities
clearly exist in the distribution of educational inputs based on the
ethnic composition and the income level of district residents.

The most appropriate means for eliminating these inequalities
and achieving the goal of equal access is the adjudication process,
since the courts are the proper forum for claims of injustice. This is
not to say that other means such as public demonstrations and legislation
are not also feasible; but the courts often become the ultimate arbiter
in public debates over questions of injustice and can also provide the
impetus for legislative action. The role of the courts in the formula-
tion of public policy has been discussed repeatedly by commentators on
the judiciary. As Yudof has noted, "A court decision often represents
an appeal to the public conscience or to public idealism that may be
accorded enormous weight in the legislative and political processes"
(1973: 415). In addition to the fact that court decisions serve a
general symbolic function of affirming moral values, they also may pro-
vide the short term symbolic victories necessary to reinforce the actions
of specific reform groups in their organizational efforts (Yudof, 1973:
415-516).

What are the prospects for reforms through the courts now that
the Rodriguez case was lost before the U.S. Supreme Court? It is clear

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that prospects are not very good for federal cases fashioned on the

principle of fiscal neutrality. However, different legal strategies

might be tried on the federal level and court cases built on state con-

stitutional provisions might be initiated. The legal strategy which is

most appropriate in a particular state will depend on that state's con-

stitutional provisions for public education and the types of inequal-

ities peculiar to that state. Just which particular legal standard

might be most effective in court is a question beyond the purview of

this research. But it is clear that if the appropriate legal approach

is to be taken in each state, thorough analyses must be made to identify

the patterns of inequalities peculiar to each state.

One thing that is evident in the wake of the Rodriguez decision

of 1973 is that school finance reform, if it is to come through the

courts, will not likely come in the form of much dreamed of landmark

cases with sweeping implications such as Brown v. Board of Education of

Topeka. Instead, change may have to be accomplished through incremental

cases with small immediate consequences, but which can be viewed as a

series of decisions leading to rather significant modifications in the

existing social order. Such an approach may have even greater long-term

consequences. As Katkin and Bullington have noted:

> there is a considerable body of legal theory suggesting both that
> incremental decision-making is the judiciary's most effective tool
> for achieving social change, and that it is most consistent with
> the role of the judiciary in a democratic society (1974: 2).

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Although there is no single successful strategy that might be recommended to the various state litigation efforts, it has become increasingly apparent that the most appropriate focus for judicial action is on educational inputs--complete denial of them and inequalities in their distribution. What emerges from a review of the findings of social scientific research and previous litigation efforts is the conclusion that the basis of judicial intervention should not be dependent on the ability to demonstrate that inequalities in access to schooling will lead to unequal educational outcomes. After reviewing the social science evidence concerning the prediction of academic achievement, Yudof concludes that:

> Except in the case of complete exclusion from public school services, judicial action to promote equal educational opportunity defined in terms of access to schooling resources cannot rest on considerations of equality of educational outcomes. Otherwise, courts will be saddled with the two-fold task of determining when resource inequality hinders or promotes achievement equality and of devising distribution systems that will achieve the goal. In short, they will have to try to distribute resources according to the educational needs of each child, a job that will result only in unmanageable judicial standards and frustration (1973: 481).

Thus, litigation efforts are appropriately addressed to the inequities in educational inputs that disadvantage minorities and the poor, but not to the very ambiguous results of studies predicting inequalities in educational outcomes among groups in society. This latter goal is best pursued most effectively in a different forum, namely, the state legislature.

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The goal of equal educational results

The concept of equality of educational opportunity has been operationally defined in this study in terms of a minimal or "negative definition" (Wise, 1968). According to this definition, equality of educational opportunity is achieved when the quality of educational inputs does not depend on such arbitrary factors as economic status, ethnicity or geographic location. Such a definition is useful for identifying injustices in the form of inequalities in the distribution of educational resources and services; it is less useful for specifying what must be done to achieve actual equality of educational attainment among different ethnic and economic groups. If the ultimate goal is to go beyond identifying resource inequalities and work toward eliminating interethnic differences in educational attainment, a different conception of equality of educational opportunity must be adopted. The Coleman Report provided the impetus for introducing a view of equal educational opportunity in terms of equality of results or educational achievement. This ideal has become the most popular of the various formulations of equality of educational opportunity.

Green characterizes well the "benefit view" of equal educational opportunity and contrasts it with the traditional "resource view":

> Imagine two sets of schools of approximately comparable staff, facilities, and instructional materials. By the traditional concept they would be providing equal educational opportunity to their respective students. Suppose, however, that such systems of schools in fact

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produce enormous disparities of achievement between the children attending the two different systems. What would we say if those disparities increased the longer the children stayed in school? It would be immensely difficult to maintain the conviction that no inequality of opportunity exists (1974: 86).

The "benefit view" described by Green does not hold that all children are expected to a-hieve at the same level. Variations in achievement will occur because students differ in ability, motivation, and effort; but social groupsings based on social class, income, ethnicity, or sex are assumed to be about the same in regard to these characteristics. Given this assumption, it is apparent that low-income and minority group children have not reached their full potential for achievement.[1] Since there is no substantial evidence to indicate that economic or ethnic groups are inherently different with respect to ability, motivation and effort, the unequal distribution of educational benefits according to such educationally irrelevant factors as class and ethnicity constitutes an unjust distribution. A redistribution of educational benefits must be accomplished if justice is to be served.

Green provides the paradigm describing equal opportunity in the benefits sense by contrasting three varieties of "limiting cases" with respect to the distribution of educational benefits. These cases, presented in diagrammatic form in Figure 4-1, might be applied to the case of the achievement gap between Anglos and Chicanos. Case 1 is the classic case of inequality. It involves the case where the two ethnic

Figure 4-1. Model Cases in the Distribution of Some Educational
Benefits*

CASE I
Enlarged Gap in Achievement

CASE II
Gap in Achievement not Enlarged

CASE III
Gap in Achievement Closed
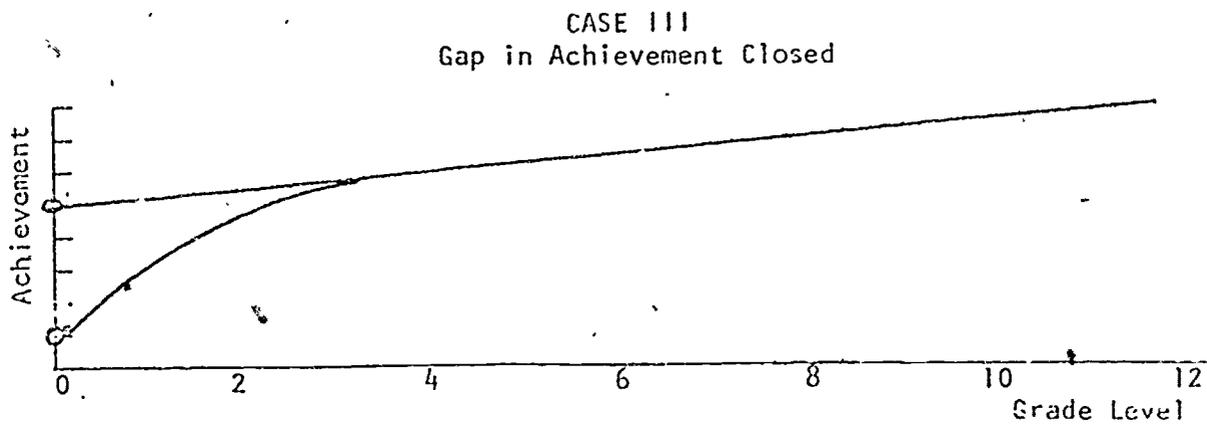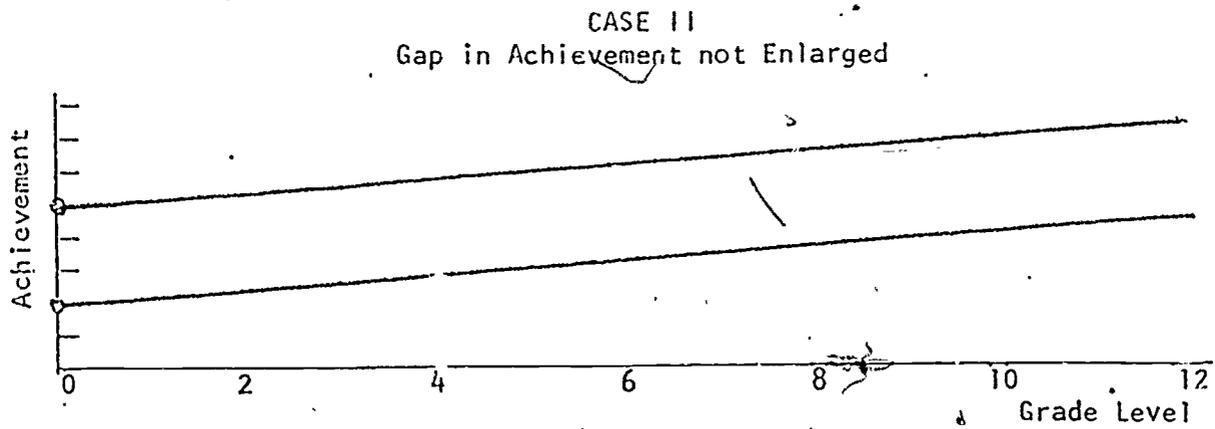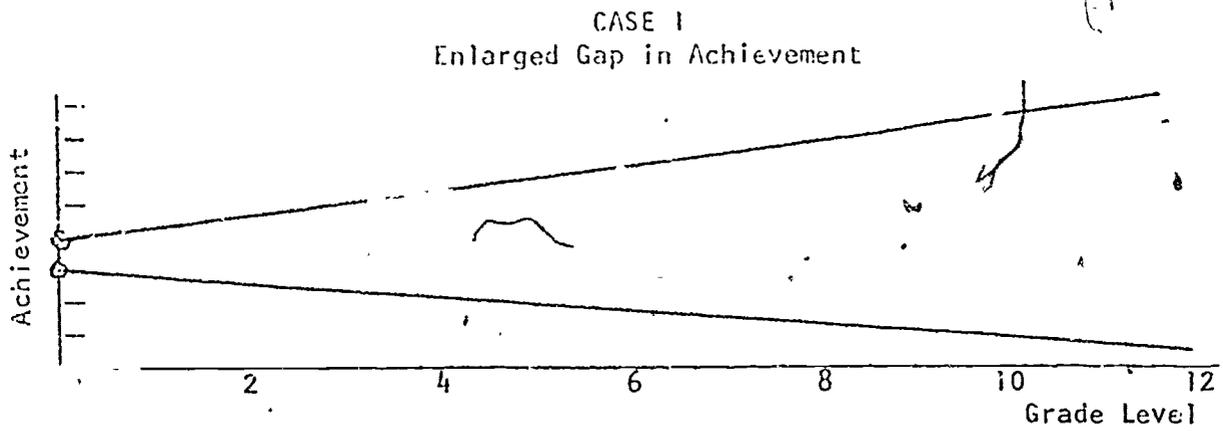
*Source: Green, 1974: 88

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groups begin school at different levels on some measure of achievement and the gap between them widens as they move through the educational system. Case II provides the borderline case whereby the achievement gap is not enlarged but differences between the two ethnic groups do not diminish. In this case inequalities in achievement are maintained within the educational system in spite of the fact that both groups may be improving as they move through school. Case III is the paradigm for equality of educational benefits. As students progress through school, the educationally disadvantaged group improves at a rate higher than that of the advantaged group thus closing the achievement gap. The first case has been found to be characteristic of the achievement gap between Anglos and Chicanos in the educational systems of the Southwestern states (USCCR, 1971b; Brischetto and Arciniega, 1973b: 11). Attaining equality of educational opportunity in the benefits sense in the Southwest, therefore, is a problem of determining how to close this achievement gap.

Since educationa benefits cannot be redistributed in the same manner as one might redistribute wealth, by taking from the haves and giving to the have-nots, lowering the rate of learning for the advantaged is not a viable option. Green concludes that:

> It follows that there is one and only one way by which we can hope to attain the goal of equal educational opportunity in the achievement sense, and that is by increasing the rate of learning for the educationally disadvantaged so that it is greater than the rate of learning of the advantaged (1974: 92).

Just how the closing of the achievement gap is to be accomplished--and, indeed, whether such a goal is attainable within the confines of the present educational system--is a question that deserves serious debate and consideration. The "equal benefits" view of equal educational opportunity is based not only on the assumption that minorities and the poor have overall an _ability_ to achieve equivalent to that of the dominant group, but also on the additional assumptions that:

> (2) the school can be made an effective institution to counter the effects of out-of-school environment (3) in a sustained way so as to (4) bring about a rate of learning for the disadvantaged that is greater than the rate of learning for the advantaged (Green, 1974: 91).

If one accepts these assumptions, then the important question becomes: What are the ways in which the schools can successfully equalize educational achievement among economic and ethnic groups in society? This brings us finally back to the cost--quality question which Coleman, _et al._, Jencks, and others have attempted to answer. But instead of phrasing the question in terms of the no-win debate over which aspects of the current educational system "explain" (in a satistical sense) the differences in achievement among pupils of a particular race or ethnic group at a particular point in time, the question should be asked with respect to the possible _alternatives_ to current educational programs that might be implemented in future efforts to close the achievement gap.

It is beyond the purview of this research to speculate exactly

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what form these alternative programs to improve the level of the disad-

vantaged will take. What can be discussed here is the basic conceptual

orientation of these programs as they fulfill some definition of equality

of educational opportunity. Wise (1968) is particularly helpful in this

regard. He identifies nine different conceptions of equality of educa-

tional opportunity, each with somewhat different implications for the

allocation of economic and educational resources.[2] His "full opport-nity

definition" seems to ultimately be the most ideal standard for allocating

educational resources. According to this definition, educational re-

sources should be provided to each student until he has reached his full

potential for achievement. The difficulty with this definition, of course,

is the prohibitive cost and the difficulty of administering such a dis-

tributive system. The value of it lies in its consideration of the indi-

vidual needs of students.

While allocating resources on the basis of individual student

needs may be ultimately the type of educational system for which to

strive, educational programs which address themselves to the shared

needs of disadvantaged groups might be more immediately important. If

the goal of achieving equality of educational opportunity is defined

in terms of the task of elminating differences in achievement among eco-

nomic or ethnic groups, then Wise's "leveling definition" is appropriate

(1968: 152). This definition aims at providing educational resources

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in inverse proportion to group achievement and in direct proportion to group needs. In such a scheme for the redistribution of educational resources, the less advantaged student would become the focus of additional educational planning and financing. Such a commitment to equality of educational outcomes will necessitate unequal educational inputs favoring disadvantaged students. This is nothing new since federal legislation in providing for compensatory education programs has legitimized disproportionate funding on the basis of family income and ethnicity. But in view of the fact that federal funding constitutes such a small proportion of all educational expenditures, its impact is at best marginal. In fact, the findings of this study of expenditures on Chicano pupils and the poor indicate that federal funds do not even bring the total expenditures on these pupils up to par with the rest of the pupils. This is not to suggest that the federal government can not utilize its fiscal power as a catalyst to spur an increase level of state funding and to require states to consider the educational needs of disadvantaged students as an essential part of their school finance schemes.

The ultimate responsibility for addressing the unique needs of disadvantaged pupils; however, rests with states. This important function was recognized by the New Jersey Supreme Court when, within three weeks after the Rodriguez decision of the U.S. Supreme Court, it declared in the case of Robinson v. Cahill (62 NJ 473, 303 A2d 273 [1973]) that,

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since the school finance system in New Jersey did not take into consideration the varying educational needs of pupils, it was in violation of the state's constitutional guarantee of a "thorough and efficient" education. The court endorsed the principle of funding according to the educational needs of disadvantaged groups articulated in the Bateman Report:

> It is now recognized that children from lower socioeconomic homes require more educational attention if they are to progress normally through school. When the additional compensatory education is provided, it results in substantially higher costs. The weighting of the children from lower income families compensates in part for the larger expenditures necessary to provide them with an adequate educational program so they may overcome their lack of educational background (State Aid to School Districts Study Commission, 1968: 48).

A number of different schemes for recognizing the educational needs of pupils have been proposed to state legislatures and several have been adopted. A "weighted pupil factor" approach has been enacted by legislators in Florida and Utah to take into consideration the higher costs of certain programs for the physically and mentally handicapped and the educationally disadvantaged. According to this method, pupils with special needs weigh more heavily in the state aid allocation formula than do "average" students. Minnesota, New Jersey, and Rhode Island utilize another type of weighted formulas based on the number of pupils from families receiving assistance under Aid to Families with Dependent Children (Berke, 1974: 113-114).[3] Singleton (1973) proposes that legislatures consider adopting a "minority needs quotient" to take into consideration the unique needs and extra ots of educating economically

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and culturally different pupils.

One very common problem with the weighted pupil approach is that more often than not the weights are derived from costs of existing programs which are sadly inadequate rather than from what ideal programs would cost. Frequently, the funds appropriated for educationally disadvantaged or culturally different pupils are only token amounts.

The concept of allocating state funds according to pupil needs is consistent with the benefits view of equal educational opportunity. The fiscal method tailored to fit this view is the "programmatic" approach to state aid to education (Morgan and Hayden, 1970). Morgan and Hayden define this as "the method by which the higher level of government, such as the state government in education, determines to perform a certain level of social-merit service, then designs a program which is a combination of activities required to produce that level of service" (1970: 102). The essential difference between this approach and the conventional method of allocating funds "is that a conventional budget provides its funds in accordance with things that are to be purchased, whereas the program budget provides its funds in accordance with goals that are to be achieved" (Morgan and Hayden, 1970: 113). The (Minimum) Foundation Program--the most common form of state aid to education--is typical of the conventional approach in that it is organized around buying of services and objects (inputs) rather than purchasing goals (outputs) (Morgan and Hayden, 1970:

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113-114). It seems clear that if equality of educational results among economic and ethnic groups is to be adopted as a legitimate goal, then basic changes will have to be made in the current approach to state funding of education and alternatives to the current (Minimum) Foundation Program will have to be considered. Already a considerable body of literature on the various alternatives to this current method of funding has developed.[3]

There is another important consideration in addition to the question of the type of funding scheme necessary to achieve equality of results: the kind of pedagogy that is needed to enable educationally disadvantaged minority students to "catch up" with members of the dominant group. Central to this concern is the "attitudinal set" of school system administrators and teachers vis-a-vis minority group pupils, since the perspective of those who design and carry out the educational programs will determine the form and content of the education received. The views of how to close the achievement gap between ethnic minorities and the majority group seem to be polarized into two very different approaches, each with its own modus operandi. These approaches are presented as described by Arciniega (1973) in Figure 4-2.

One approach might be referred to as the "compensatory education for the culturally deprived" model. According to this perspective, equal benefits for minorities can best be achieved by successfully overcoming

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Figure 4-2. Schematic of Alternative Responses to the Equal Benefits
          View.*

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                    ┌─────────────────────────┐
                    │  Perceived Inequality   │
                    │           Of            │
                    │ Educational Opportunity │
                    └─────────────────────────┘
                                 ⇓
                    ┌─────────────────────────┐
                    │      Emergence Of       │
                    │   Equal Access View     │
                    └─────────────────────────┘
                                 ⇓
Traditional Compensatory  ┌──────────────────┐  Culturally Democratic
Education Approach         │   Emergence Of   │  Learning Approach
                           │ Equal Benefits View │
                           └──────────────────┘
```

Traditional Compensatory Education Approach	Culturally Democratic Learning Approach
Cultural Differences Perceived As Deficiencies	Cultural Differences Perceived as Strengths to Be Enhanced and Promoted
Analysis of Existing Programs New Research & Development Efforts Produs Compensatory Education Approach	Analysis of Existing Programs New Research & Development Produces Culturally Democratic Learning Systems Approach
Implementation of Compensatory Education Model Nation-Wide	Implementation of Culturally Democratic learning Environment Model
Eliminates Cultural Defecit of Home, Neighborhood and Peer Group	Eliminates Institutional Racism, Cultural Bias, and Discrimination in Schools

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                    ┌─────────────────────────┐
                    │        Equality         │
                    │           Of            │
                    │ Education Opportunity is │
                    │        Achieved         │
                    └─────────────────────────┘
```

* Source: Adapted from Arciniega 1973: 179.

the negative effects of their deprived environments. Thus, steps must be taken to remediate the deleterious influences of home, neighborhood and peer environment on the minority child. This is basically the rationale of compensatory education programs in recent years. It is the approach recommended by Coleman after considering the findings of the Office of Education survey (Coleman, 1968: 26). And it is a view supported by the research of Martin Duetsch, Jerome Bruner, H. M. Skeels, and earlier works such as that of Jean Piaget (Morgan and Hayden, 1970: 136). The programs that follow logically from this perspective were developed to compensate for deprivations of the child's early years and ultimately, through reconditioning, acculturate the child into middle-class values and behavior. In its pejorative form, this approach views the child's home culture as essentially "pathological."

Brischetto and Arciniega (1973a) reviewed the literature on the education of Mexican Americans prior to 1970 and found the compensatory education model cast in terms of a "pathological" view of Chicano life styles to be predominate. The implications of this view are that

> . . . when carried into the classroom, (it) has had the effect of
> defining the minority pupil as inferior and placing the responsibil-
> ity for his failure on his home environment and group culture. The
> application of this perspective to public policy has been to create
> programs designed to intervene in the child's socialization process
> and even alter the child's home environment (Brischetto and Arciniega,
> 1973a: 40).

The operationalization of this "pathological" perspective is

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found in most compensatory education programs. One such program, Head

Start, in the estimation of Stephen and Joan Baratz, "has effectively

disregarded or attempted unknowningly to destroy that which is viable

cultural system. . . . Head Start has failed because its goal is to

correct a deficit that simply does not exist" (1971: 481). Faced with

the realization that compensatory programs have until now failed in at-

tempting to close the achievement gap between minorities and the dominant

group, Baratz and Baratz suggest three response that might be anticipated:

1. An increased preoccupation with very early intervention, at
    birth or shortly thereafter, to offset the allegedly 'vicious'
    effects of the inadequate environment . . .;
2. The complete rejection of the possibility of intervention effects
    unless the child is totally removed from his environment to be
    cared for and educated by specialists;
3. The total rejection of the environmentalist-egalitarian position
    in favor of a program of selective eugenics for those who seem
    unable to meet the demands of a technological environment--sci-
    entific racism (1971: 484-485).

It is only recently that an alternative perspective has been

articulated which, for want of an established title, might be called the

"culturally democratic learning" model. Rather than attempt to compensate

for a culturally deprived home environment, this view attempts to develop

an educational system which adapts to the cultural differences of minority

group children and encorporates these differences into the educational

program. The promotion of cultural differences is recognized as a legiti-

mate educational goal necessary to develop the full potentialities of the

culturally different child. Thus, cultural schools with bicultural

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curricula are considered essential elements of school systems with bicultural pupils. Both English and Spanish are encouraged and utilized a. all levels with the specific purpose of developing functional proficiency in both languages. According to this approach the school would be changed to fit the child rather than vice versa. A pluralistic educational system with community control of schools would be developed which addresses itself to. the unique problems of culturally different pupils (Arciniega, 1973: 177-179).

Whether or not this new model will be adequate for achieving results in school will depend on a number of factors, not the least of which is a serious, well-funded commitment to making radical changes in the current system of public education. The evaluation of the various alternative pedagogical approaches will require extensive and well-designed social experimentation.

The goal of economic equality

Whether the goal of achieving equal educational results is a reasonable one within current societal arrangements gives reason for pause. What reform efforts in the courts and in the legislatures have taught us is that equality of educational opportunity in e fullest sense of equal results of education is a complex problem to which there is no simple solution. To understand the complexities of the issue requires an understanding of the interrelated character of our basic social, economic,

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political and educational institutions. Thus, to change in any funda-
mental way the educational system requires that changes also be made in
the social, economic and political spheres of society.

A quite different view of the relationship between schooling, and
social status pervades the literature on equality of educational oppor-
tunity. Typically, the school is viewed as the _independent_ variable in
the status achievement equation. Horace Mann over a century ago saw
education as the "great equalizer," a view which is still very prevalent
today. Equality of educational achievement is somehow expected to pro-
duce equality in the economic sphere of society. But to the amazement of
their investigators, these studies have generally found that differences
in educational attainment explain very little of the variation in eco-
nomic success causing many to abandon efforts to reform the educational
system altogether. John Porter's critical comments on the types of re-
search efforts addressed to the prediction of educational and ultimately
economic success are to the point:

> It appears that some American liberal educators have had a deep-
> seated if naive conviction that public education was the open-
> sesame to a beautiful world of equality. Hierarchy and stratifica-
> tion rest on foundations which are not likely to be demolished by
> education. Schools are very much the creatures of the societies in
> which they are found, reflecting and reinforcing the interests,
> powers and inequalities that exist. On the other hand there was rea-
> son to suppose that something called equality of educational oppor-
> tunity would facilitate upward mobility by giving disadvantaged
> social classes a better start in the competition for unequal re-
> wards, a condition which does not seriously threaten the existing
> order of privilege as long as the supply of higher-status occupa-
> tions continues to expand (1973: 463).

But what happens when the supply of high-status occupations is depleted? While social mobility may occur for some members of the disadvantaged class, there is certainly not room at the top for all members.

What the tremendous emphasis on equality of outcomes has accomplished is to create a homogeneity or aspiration in a competitive game wherein winners imply losers and ' equality becomes an accepted fact of life. Thus, ultimately the social division of labor within the hierarchical structure of production would seem to be a more important target for change efforts to achieve economic equality. The elimination of inequalities in educational opportunities is no panacea for solving the more deep-rooted problem of inequalities in the economic sphere of society. Jencks was probably giving sound advice when he suggested that we acknowledge that economic success results from non-educational factors and go on to attack economic inequality directly (1972: 84). Of course a frontal assault on economic inequality does not preclude the need for attacking inequalities among and within educational systems directly.

SUGGESTIONS FOR FURTHER RESEARCH

The focus of the present research on inequalities in educational revenues, expenditures and services should not be construed to mean that money is the only measure of equal educational opportunity in the equal inputs sense of the term. One must keep in mind the three-dimensional

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model presented in Chapter 1 (Figure 1-1) for identifying the various inequi ... in educational inputs. There are other types of inequities that deserve investigation if all the avenues to litigation are to be explored.

Inequalities in educational resources

One basic limitation of most of the research on inequalities in the distribution of educational resources--this study notwithstanding-- is that usually the only unit of analysis on which resource data are available is the school district. School districts, especially those large districts in urban areas, are not very homogeneous and disparities within districts are masked in interdistrict analyses. For states such as Texas, where disparities among districts are great with respect to both educational resources and ethnic composition, the patterns of dis-crimination are more readily apparent. But in states such as California, where districts contain a more heterogeneous mix of racial and ethnic groups, the discrimination is less evident. What are needed are studies of inequalities in the distribution of educational resources among schools within districts. If differences between schools and even between pupils were revealed, the results would probably show even greater inequalities than are apparent from district-level data. The existence of large in-tradistrict disparities was acknowledge by the U.S. Office of Education in 1970 by an administrative policy guideline which required that a

school district in order to qualify for additional Title I funds attain "comparability" between schools of the district with regard to the distribution of educational resources.

There is some legal precedent for trying cases on intradistrict inequalities. One of the earliest school finance suits to be introduced was <u>Hobson v. Hansen</u> (269 F Supp 401 [DDC, 1967]), a case involving intradistrict inequalities among schools in Washington, D.C. In that suit Judge J. Skelly Wright opined that a $100 per pupil difference between predominately (85-100 percent) Black schools and predominately Whit schools constituted an unacceptable inequality and was <u>prima facie</u> evidence for racial and socioeconomic discrimination (Kirp and Yudof, 1974: 567-583).

Another area for future research on disparities in educational resources is the determination of the unique impact of school finance equalization on central cities. Callahan and Wilkin report that popular school finance reforms--namely, full state funding, district power equalizing, and percentage equalization plans--would disadvantage central cities "unless these reform plans were modified to take into account the per capita wealth, total tax effort, educational need, and educational costs affecting urban school finances" (1974: 42). The determination of urban-suburban-rural differences in these factors is essential if school finance reform plans are to be properly implemented. There is

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every reason to believe from the preliminary research that has been done that the property wealth of urban school districts is not truly reflective of their fiscal capacity to bear taxes given the higher·municipal overburden of non-school taxes (Sacks, 1973), the higher cost of education in cities (Levin, Muler, and Sandoval, 1973),·and the greater proportion of pupils with special educational needs in urban areas.

·Finally, the identification of differences in fiscal capacity to ' bear taxes is not possible without more accurate and precise data on' school district "wealth." It must be realized that real estate property does not provide the best estimate of the total 'wealth of a school district since it omits the major type of wealth, "human capital" (Morgan and Hayden, 1970: 73). The 1970 census data on personal income by school district boundaries provides an important additional source of data for estimating total district wealth. But additional data are needed to separate out the different types of wealth. With better estimates of fiscal capacity to bear taxes, more adequate research can be conducted on the disparities in tax burden as they affect different economic and ethnic groups. Previous research on tax assessment disparities indicates that assessment practices are notoriously erratic (Morgan and Hayden, 1970: 73; Due, 1959: 390; Netzer, 1966: 165). Further research efforts are needed on this topic on a state-by-state basis. The major problem with this type of research, of course, is that it is very costly and, thus,

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often politically unfeasible.

Inequalities in educational practices

A second area in which further research on inequalities in educational inputs is needed concerns the educational practices involved in the delivery of educational resources. Equal educational opportunity in this sense means that each child has the chance to participate to his fullest capacity in the educational process regardless of his ethnicity or the wealth of his parents. The assumption is that different children have different needs and educational practices and programs must be flexible enough to satisfy those various needs. The central research question guiding the analyses in these research endeavors would be: To what extent are educational practices and programs implemented in a manner which has the effect of excluding culturally different students from full participation in the educational process?

The Office for Civil Rights of the U.S. Office of Education prior to 1970 had received a number of complaints by community organizations and individuals indicating that it had failed to investigate discrimination based on the cultural and linguistic characteristics of Chicano youths in school. Upon closer investigation, the Office of Civil Rights found "massive evidence of the systematic lower achievement of minority group children and the existence of large numbers of segregated homogeneous ability grouping and special education classes. . . ." (Gerry, 1971:

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5). After reviewing much of the educational and civil rights literature on ethnic discrimination, the conclusion was reached that "Mexican American children were, as a group, in many school districts being excluded from full and effective participation in . . . the educational programs operated by such districts" (Gerry, 1971: 5).

In response to these findings, J. Stanley Pottinger, Director of the Office for Civil Rights, on May 25, 1970, issued a departmental policy statement in the form of a memorandum to school districts with more than 5 percent national origin-minority group children. As a policy document the memorandum was designed to create a set of principles which would serve "to clarify D/HEW policy on issues concerning the responsibility of school districts to provide equal educational opportunity to national origin-minority group children deficient in English language skills" (Pottinger, 1970: 1)

The legal basis of e May 25th memorandum was Title VI of the Civil Rights Act of 1964 which provides that no person "on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." (Sec. 601, Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d). The substance of the memorandum was that school districts should develop educational programs and practices which were culturally relevant to the students

enrolled and which were sufficiently flexible to allow culturally dif-

ferent pupils to share in the full benefits of these programs. Four major

areas of concern were specified in the memorandum:

1. Where inability to speak and understand the English language
    excludes national origin-minority group children from effective
    participation in the educational program offered by a school dis-
    trict, the district must take affirmative steps to rectify the
    language deficiency in order to open its instructional program
    to these students.
2. School districts must not assign national origin-minority group
    students to classes for the mentally retarded on the basis of
    criteria which essentially measure or evaluate English language
    skills; nor may school districts deny national origin-minority
    group children access to college preparatory courses on a basis
    directly related to the failure of the school system to inculcate
    English language skills.
3. Any ability grouping or tracking system employed by the school
    system to deal with the special language skill needs of national
    origin-minority group children must be designed to meet such
    language skill needs as soon as possible and must not operate
    as an educational dead-end or permanent track.
4. School districts have the responsibility to adequately notify
    national origin-minority group parents of school activities
    which are called to the attention of other parents. Such notice
    in order to be adequate may have to be provided in a language
    other than English (Pottinger, 1970: 102).

In short, the responsibility was placed on the school system to

develop educational practices which relate to the culture, language, and

learning style of the children in school. For future research efforts,

the May 25 memorandum may serve the important function of providing the

guidelines for determining whether or not certain practices are perpetuating

inequalities in educational opportunity. From the findings of survey re-

search by the U.S. Commission on Civil Rights (1972a, 1974), it is evident

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that Title VI violations are quite common in the Southwest. What is

needed is a systematic attempt to identify the type and extent of cultural

exclusion on a state-by-state basis.

If one is to judge from recent court decisions based on Title VI,

this approach provides one of the most promising future litigation strate-

gies. On January 21, 1975, the U.S. Supreme Court ruled in Lau v. Nichols

(412 U.S. 938 [1973]) that non-English-speaking Chinese students in the

San Francisco Unified School District were effectively being excluded

from schooling since they were not provided instruction that would allow

them to comprehend and benefit from classes taught in English. This rul-

ing has been read as a legal mandate for bilingual education that may be

applied to Chicano pupils as well (Alcala, et al., 1974). Since Lau was

based on a legislative rather than a constitutional standard, i.e., Sec-

tion 601 of the Civil Rights Act of 1964 (42 U.S.C. 2000d), the enforce-

ment of this provision is in the hands of the Office for Civil Rights of

Department of Health, Education, and Welfare. Failure to comply with the

HEW guidelines may lead to discontinuance of federal funding; but to date

there are no reported cases of such fund cutoffs (Alcala, et al., 1974:

21).

Other cases have ordered bilingual-bicultural education plans as

remedies. In Serna v. Portales Municipal Schools (351 F. Supp. 1279

[D.N.M. 1972]) the court found that Chicano pupils did "not in fact have

equal educational opportunity and that a violation of their constitutional right to equal protection exists" (Alcala, et al., 1974: 14). In an intervention into United States v. Texas, Judge Justice ordered that bilingual education be included in a comprehensive education plan for the San Felipe-Del Rio desegregation case (Alcala, et al., 1974: 12). Research is needed to provide the facts for similar cases in court.

Inequalities in ethnic influence

Related to the problem of cultural exclusion in the schools is the issue of ethnic representation in positions f influence in the school system and the larger issue of community control of schools. A successful bilingual-bicultural education program can not be implemented without sufficient bilingual teachers. Yet the number of Chicano pupils per Chicano teacher is extremely high, almost insuring that any program for bilingual education will, no doubt, be only superficial. HEW figures on enrollment in public schools throughout the U.S. in 1973 show there were: 22.5 Anglo pupils for each Anglo teacher; 31 Asian pupils for every Asian teacher; 35 Black pupils for every Black teacher; 86 Native American pupils for every Native-American teacher; and 107 Spanish-speaking pupils for every Spanish-speaking teacher (Alcala, et al., 1974: 5).

Other research comparing the percentage representation of

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minorities on school boards and in administrative and other decision-making positions is needed. The information might be provided to bolster cases based on Title VI of the Civil Rights Act of 1964.

It is interesting to note that standards for judging violations of Title VI, included in an early version of the May 25, 1970, memorandum by Stanley Pottinger of the Office for Civil Rights of HEW, were stricken from the final draft. These included, among others;

1. Failure to provide bilingual personnel in schools with significant Spanish-speaking enrollment and in other district contact positions;
2. Failure to undertake affirmative recruitment and development through in-service programs for teachers, counselors and administrators who possess a sensitivity for and understanding of the cultural background for the minority pupils (Alcala, et al., 1974: 28).

Whether such standards will again be introduced may depend on the extent to which such inequities in ethnic representation in instructional and administrative positions are well-documented in future research efforts.

Segregation

Although this question has received very little attention by social science researchers, it has recently become a topic of concern in the formulation of educational policy affecting national-origin minority group children. This belated concern follows almost two decades the Brown v. Board decision of the Supreme Court. The Brown case declared that practices separating chil·en of different racial groups--even if physical facilities and other educational resources were available to

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both groups--violate the equal protection clause of the Fourteenth Amend-

ment to the Constitution. Prior to 1970 no action was taken by the fed-

eral government or the courts to apply the Brown case to ethnic minori-

ties. During the sixties, court-ordered desegregation plans in the

Southwest, by classifying Chicano children as Whites, accomplished "de-

segregation" by bringing together Black and Chicano children. It was

not until the 1970 case of _Perez v. Sonora Independent School District_

that the Department of Justice intervened to attempt to desegregate

Chicano children in the schools of that district and to end discriminatory

practices (Gerry, 1971: 2). Desegregation plans negotiated by the execu-

tive branch also ignored the problem of discrimination against Mexican

American pupils. As Martin Gerry of the Office for Civil Rights of HEW

notes,

> between 1954-1970 neither the courts nor the Executive branch seri-
> ously attacked either the segregation of Mexican America , Puerto
> Rican and native American children or the invidious discriminatory
> practices utilized by school districts in the operation of educational
> programs within schools (Gerry, 1971: 4).

This marked lack of concern with the problem of the segregation

of Mexican Americans is also evident in the sparcity of studies of ethnic

isolation. Such a gap in research caused the U.S. Commission on Civil

Rights to address the segregation of Mexican Americans in the Southwest

as the first of a series of reports on the findings of their Mexican

American Education Study (1971a). Their findings estimated that in 1968-69,

45.5 percent of all Chicano pupils in the Southwest were attending

schools in which their ethnic group in the majority. They also found

considerable variation from state to state in the degree of ethnic iso-

lation. Texas was reported to have the greatest extent of ethnic isola-

tion and California the least. In Texas, one-fifth of the Chicano pupils

were found in schools of 95-100 percent Mexican American enrollments and

two-thirds of a,l Chicano pupils are located in schools which are predomi-

nately Mexican American (USCCR, 1971a: 26, Table 7).

These findings are consistent with the data presented in this

study of data for 1971-72. Although the central focus of the present

research was not to examine the degree of ethnic isolation per se, the

major "independent" variable was the ethnic composition of school dis-

tricts. In Texas, where ethnic isolation was found to be the greatest,

the problems of segregation and low educational expenditures were found

to coincide to a great extent. Although considerable interdistrict dis-

parities in ethnic isolation were not found in California, further re-

search is needed to investigate the degree of ethnic isolation within

large school districts and, beyond that, the interrelationship between

intradistrict segregation and disparities in the allocation of educational

resources among schools within districts.

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FOOTNOTES

^{1}See Brischetto and Arciniega, 1973b: 11 for an illustration of the educational attainment gap between ethnic groups.

^{2}Wise identifies nine different definitions of equality of educational opportunity in terms of different means of allocating educational resources (1972: 142-159). These are: "(1) The negative definition is the one most commonly in use in the courts. When the quality of a child's education does not depend on such 'arbitrary' factors as his parents' economic status or on his geographic location within the state, then equality of educational opportunity exists; (2) The full opportunity definition, on the other hand, is a more idealistic standard by which to judge whether or not equality or educational opportunity exists. According to this definition, educational resources would be allocated to each student until he has reached his full potential for achievement; (3) The foundation definition has been operationalized with slight variations by most to finance education. The foundation program provides for a 'satisfactory minimum offering' in dollars to each school district within the state. When a local school system is unable to provide the minimum offering at the tax rate required by the state, the difference is made up by state funds; (4) The minimum attainment definition requires a minimum level of educational achievement by every student. Educational resources are to be provided to each student until he reaches the minimum level of attainment. Such a standard necessitates an unequal distribution of educational resources in favor of the educationally deficient children. Thus, if a student fails below the norm, additional resources and attention are provided to bring him back up to the minimum level of performance; (5) While the foundation and minimum attainment definitions specify minima, the leveling definition is not limited to a fixed minimum. This definition provides for the allocation of resources in inverse proportion to the student's ability in order to equalize differences in educational outcomes of students. Students, according to this definition, would ideally leave school with equal educational equipment and with a more equal chance for success. The less advantaged student would become the focus of educational resources and programs in order to approach equality of attainment; (6) Just the opposite of the leveling definition is the competition definition of equality of educational opportunity. This definition would necessitate the allocation of educational resources in direct proportion to the student's ability. The underlying assumption is that students will benefit according to their different capacities for learning and thus those who are more capable should be provided greater access to educational resources; (7) Unlike the competition

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definition, the equal dollars per pupil definition argues that ability is not a legitimate basis for allocating educational resources. Instead, educational resources should be allocated equally to all students. This definition does allow for different kinds of resources to be allocated for different sorts of students, depending on individual needs; but the amount of resources per pupil should, in the balance, be equal; (8) A slight variation of the equal dollars per pupil definition is the maximum variance ratio definition which allows for educational resources to be allocated such that the 'maximum discrepancy in per pupil expenditures does not exceed a specified ratio.' Variations allowing for differences in cost, in educational needs, and economics of scale would be taken into consideration in allocating resources for education; (9) The reasonable classification definition sets standards for pupils of different interests and abilities and applies these standards statewide. Thus, if $600 a year is considered suitable for college-bound students of average ability, then what amount should be allocated statewide for students of average ability who intend to go on to college. Or, if $1,200 a year is a reasonable amount for disadvantaged students in the primary grades, then that should be appropriated for disadvantaged elementary pupils statewide.

[3]For a more detailed discussion of these schemes, see: Johns and Alexander, 1971; Garms and Smith, 1969; and Berke, Callahan and Goettel, 1972: 64-73.

[4]Morgan presents a thorough summary and assessment of the various reform options in response to the principle of no-wealth discrimination (1973b) and discusses, in another source, the arithmetic of 'no wealth discrimination' (1974). See also Gilmer, 1973, and Gilmer and Morgan, 1973 for a discussion of the impact of alternative forms of funding education. Coons, Clune, and Sugarman (1970) give a thorough analysis of the minimum foundation program approach to funding education. And see Johns and Alexander (1971) for a review of the various alternative forms of school financing.

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