

AN ANALYSIS OF SCHOOL RACIAL COMPOSITION
OVER A TEN YEAR PERIOD AS RELATED TO
BLACK AND WHITE ELEMENTARY STUDENT
ACHIEVEMENT SCORES IN MEMPHIS,
TENNESSEE: A REPLICATION STUDY

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ABSTRACT

AN ANALYSIS OF SCHOOL RACIAL COMPOSITION OVER A TEN-YEAR PERIOD AS RELATED TO BLACK AND WHITE ELEMENTARY STUDENT ACHIEVEMENT SCORES IN MEMPHIS, TENNESSEE: A REPLICATION STUDY

By

Gail Wingard Sciamanna

The purpose of this study is to examine the relationship of school racial composition over a ten-year period with the educational achievement of black and white elementary students, while at the same time controlling for socio-economic influences. This thesis grew out of a school desegregation court suit brought by the N.A.A.C.P. in Memphis, Tennessee, and is utilizing information from that case.

The material that is being examined is elementary student educational achievement data in the form of grade equivalents, the racial composition of the elementary schools, and the socio-economic background of the elementary students. A statistical test on the means was used to test this hypothesis: Educational achievement is at or above the expected mean-grade equivalent for both black and white students when the racial composition of a school has remained majority white; and conversely, that educational achievement is below the expected mean-grade equivalent for both black and white students when the racial composition of a school has remained majority black or has racially changed from white to black over a period of time.

The results of this study show that white students

students did achieve at or above the expected grade level in each type of racially composed school, while black students achieved below the expected grade equivalent in these same schools. White students generally achieved the highest in schools that remained predominantly white over ten years. They also generally achieved highest if they were in high SES schools rather than middle or lower SES schools, despite the racial make-up of the school. Black students also generally achieved highest in predominantly white schools. A noticable and very significant exception to this, however, was the group of black students in predominantly black, middle SES schools that scored higher than their counterparts in middle SES, predominantly white and racially changing schools.

Stable white middle class environments for white students and stable black middle class environments for black students with their corresponding positive influences seemed to have played a significant role in this higher academic achievement. SES factors as well as racial factors made a noticable impact on scholastic performance. The significance of these findings is not in the racial and ideological realm as it relates to the myths of white superiority. Rather, what is important is that the structural reality of present racial divisions is reflected in unequal access to American opportunity structures, such as educational quality.

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DEDICATION

This thesis is lovingly dedicated to my parents, Stanley and Anne Wingard, who have supported and encouraged me in everything I have done. I will always be greatly indebted for the sacrifices you have made that I might obtain the education you were unable to have. This Thesis and my Master's Degree are as much yours as mine.

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First and foremost, I must acknowledge the help of my beautiful husband, David, who always believes in me. Without his moral support and encouragement this thesis would never have been completed.

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I am also very much indebted to the present national Vice-President, Gerald R. Ford. In his former capacity as House Minority Leader he and his staff were able to obtain 1972-73 Memphis school socio-economic data through the Memphis member of the House of Representatives.

A special thank you is due to my advisor and major professor, Dr. Ruth Hamilton, for all her help, suggestions, time, and encouragement.

I appreciate the time and effort of each member of my graduate committee for reading the manuscript, and participating in my orals: Dr. Ruth Hamilton, Dr. James McKee, and Dr. Richard Hill of the Department of Sociology, and Dr. John Schweitzer of the College of Urban Development and Evaluation Services.

The largest debt incurred with the development of this thesis is owed to Dr. John Schweitzer, a beautiful friend and dedicated scholar who has generously contributed many hours of his time and much of his expertise in educational achievement, statistics, and computer programs. This thesis would not have been possible without the unselfish help given to me by John.

TABLE OF CONTENTS

List of Tables.....	v
List of Figures	vi
Chapters	
I. Race and Educational Achievement: An Introduction to a Selected Study.....	1
Purpose of Study.....	1
Review of Literature.....	2
Methodology.....	8
II. Results.....	15
A. White Students in "White-White" Schools.....	16
B. White Students in "Black-Black" Schools.....	24
C. White Students in "White-Black" Schools.....	24
D. Black Students in "White-White" Schools.....	25
E. Black Students in "Black-Black" Schools.....	26
F. Black Students in "White-Black" Schools.....	27
III. Discussion and Analysis of Results.....	29
IV. Conclusions and Recommendations.....	40
Conclusions	40
Recommendations	42
List of References.....	45

LIST OF TABLES

Table 1.	School Racial Composition over Ten-Year Period as Related to Results of May, 1971, Memphis Metropolitan Elementary Achievement Tests, indicated in Mean-Grade Equivalents.....	17
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LIST OF FIGURES

Figure 1.	White Students in "White-White" Schools over Ten Years	18
Figure 2.	White Students in "Black-Black" Schools over Ten Years	19
Figure 3.	White Students in "White-Black" Schools over Ten Years	20
Figure 4.	Black Students in "White-White" Schools over Ten Years	21
Figure 5.	Black Students in "Black-Black" Schools over Ten Years	22
Figure 6.	Black Students in "White-Black" Schools over Ten Years	23

CHAPTER I -- RACE AND EDUCATIONAL ACHIEVEMENT: AN INTRODUCTION TO A SELECTED STUDY

Purpose of Study

This thesis has been developed in close relationship to the author's emphasis on urban sociology and urban education within the Department of Sociology. In general, the purpose of this study is to examine the relationship of school racial composition over a ten-year period with the educational achievement of black and white elementary students, while at the same time controlling for socio-economic influences.

Specifically, this thesis grew out of a school desegregation court suit brought by the N.A.A.C.P. in Memphis, Tennessee. Faculty members of the Center for Urban Affairs (now the College of Urban Development) at Michigan State University were asked by the defendants to analyze educational data in the form of test results. Deborah Northcross vs. the Board of Education, Memphis City Schools, (444 F2d 1179, 1971) had originally been filed in 1960 and had been before many appellate courts on numerous occasions. In 1971 it came to the U.S. District Court for the Western Division of Tennessee on a remand from the Court of Appeals for the Sixth Circuit. A 1971 decision of de jure segregation was handed down in the Northcross case based on findings showing that deliberate, segregated housing patterns led to one-race schools. This practice was per-

petuated by the Memphis Housing Authority, the Federal Housing Authority, realtors, and lending institutions. It was also found that the Memphis Board of Education became an active partner in the entire process by influencing the size and location of federally-funded subsidized housing projects, by assigning pupils to schools by race rather than location of neighborhood, by redrawing school zones to accommodate only one race, and by controlling the location and construction of new schools to continue patterns of segregation. The court stated that 87.7% of black Memphis elementary and secondary students attended schools that were 90% or more black and that 76.4% of white Memphis elementary and secondary students attended schools that were 90% or more white. It was thought that the impact of school racial composition over an extended period of time could be dramatically shown by examining the scholastic achievement of the elementary school children in the Memphis School System. Therefore, when material related to this court case was made available to faculty members of the MSU Center for Urban Affairs, it seemed to be an appropriate time to conduct this study.

Review of Literature

A voluminous amount of research has been done by education specialists and sociologists who examined school achievement data and its relationship to the above mentioned variables of race and socio-economic status. Not all of

the published research findings are accurate, conclusive, or methodologically sound. There are four books available, however, which attempt to analyze and summarize the latest research studies in the area of educational achievement as it is related to race and social class. The studies reported in these works have contributed a great deal to the body of knowledge regarding the educational achievement of youngsters. The following works have become somewhat classics in this field: James S. Coleman, et. al., Equality of Educational Opportunity, 1966; U.S. Commission on Civil Rights, Racial Isolation in the Public Schools, 1967; Meyer Weinberg, Desegregation Research: An Appraisal, 1968; and the most recent and controversial, Christopher Jencks, et. al., Inequality: A Reassessment of the Effect of Family and Schooling in America, 1972. All of the above research studies dealt with many aspects of educational achievement, but the portions of most interest to this study addressed the topics of academic achievement in relation to race and socio-economic background. These studies thus served as a basis from which a hypothesis and methodology could be developed in order to analyze the Memphis school data.

The first two studies are federal agency reports on the status of equal education in the U.S. Equality of Educational Opportunity, (Coleman, 1966), was conducted by the U.S. Office of Education. It documented extensive inequality of educational opportunity in the U.S. and discussed the possible learning effect of desegregation. In

the area of race and achievement some of the major findings are: (1) "...As the proportion white in a school increases, the achievement of students in each racial group increases; (2) ... This relationship increases as grade in school increases; (3) ...The higher achievement of all racial and ethnic groups in school with greater proportions of white students is largely, perhaps wholly, related to effects associated with the student body's educational background and aspirations rather than with better facilities and curriculum; (4)...Average test performance for Negroes increases as the proportion of white classmates increases..."

A large body of literature has criticized, defended, condemned, and interpreted Coleman's findings. Coleman only cites two specific findings (Katz, 1964, and Wilson, 1959), but refers generally to much previous research. The samples in the study also failed to include many of the largest U. S. cities, therefore, its findings could be lopsided. However, many large city school systems refused to participate. Katz has defended the Coleman report in the area of socio-economic factors since he states that they were substantially controlled and make the report accurate.

A second federal report was commissioned by President Johnson in 1965. In February 1967, Racial Isolation in the Public Schools was completed, (U.S. Commission on Civil Rights, 1967), with Thomas F. Pettigrew serving as the chief educational consultant for the study. The Commission utilized five research approaches in its study: (1) a re-

analysis of the data used for the Office of Education study, (2) a longitudinal study of the Richmond, California, schools, (3) an analysis of 1965 Oakland, California, high school graduates, (4) a study of the long-term effects of desegregated schools upon adult attitudes, and (5) a series of special studies. James McPartland and Robert L. York re-analyzed the Office of Education data in an attempt to separate the effects of race and social class upon achievement which were highly mixed in Coleman's report. In their review of achievement scores, they found "that there is a positive association of achievement scores with the racial composition of the classroom, no matter what the racial composition of the school may be...even when holding constant the social class of the student and his school, there remains an upward trend in average achievement level as the proportion of white classmates increases." In the Office of Education study, racial desegregation is accorded a minor role, while the Civil Rights Commission gives it a major role. McPartland and York have explained that the difference is due to the statistical technique used in the earlier study which confounded class and race and also that the earlier study used the school rather than the classroom as its object of analysis when applying the statistical technique of regression analysis. They stress that "...it is in the classroom within the school where the characteristics of the fellow-students have their effects."

Desegregation Research, (Weinberg, 1968), appraises both

federal studies and the numerous individual studies contained within those two volumes. It analyzes also many academic achievement studies in relation to segregation and desegregation of schools, (Portland, Oregon, Board of Education, 1964; Sexton, 1961, Crowley, 1932; Weinberg, 1965; Katz, 1964; Pettigrew, 1964; Dumbarton Research Council, 1966; etc.) Initially it defines segregation as "...a socially-patterned separation of people, with or without explicit sanction...Fundamentally, a school is segregated when the community comes to view the school in its nature to be inferior and unsuitable for privileged children. For example, a school is segregated whenever it becomes known as a 'Negro school.'" The great number of empirical studies reviewed in Weinberg conclude that racial segregation has a negative effect on black children and that racial desegregation has a positive learning effect on black children. Most of the studies concluded that either race or social class (and sometimes both) contributed to a change in the educational achievement of black and white children.

Inequality: A Reassessment of the Effect of Family and Schooling in America, (Jencks, et al., 1972), is one of the most controversial recent books to examine educational achievement and the significance of race and social class, as well as inequality in all aspects of life. It summarizes the findings of three years of research at the Center for Educational Policy Research. Jencks and his colleagues also reassess the Office of Education data with far diff-

erent conclusions than those arrived at by Coleman or the Civil Rights Commission. Jencks concludes that schools cannot contribute to future, long-term adult equality and that very few of the variables operating within a school setting have had any significant impact upon school achievement. His study indicated that little in the way of school reform could reduce cognitive inequality in the area of reading, math, and language. The study admitted that desegregation can raise black elementary school students' test scores by a few points, but that the large gap between black and white test scores still persists within the same schools. Segregation really had little appreciable effect on either test scores or educational achievement, Jencks concludes. He found little evidence to support tracking as a method of affecting changes in test scores. He also found that overall school resources and school administrative policy had little significant effect on cognitive skills. Although his evidence knocked down many previously studied assumptions and hypotheses, it did not explain "why" school quality has such little effect on test scores. Jencks offered three possible explanations: (1) that children seemed to be more influenced by home, street, and tv occurrences than by school events, (2) that administrators have very little control over aspects of school life that do affect children, such as direct teacher-pupil contact, and (3) that even when schools do exert an unusual influence on children these changes will not persist into

adulthood and will not significantly alter status or income.

The above four books with their reports of research studies on academic achievement and variables such as race, social class, economic background, etc., formed a good basis from which to begin analysis of the Memphis elementary school achievement data. This author wished to determine the extent to which social class and race were significant variables in the Memphis Public School System since they had been demonstrated to be significant elsewhere. Based on the findings of Coleman, the Civil Rights Commission, and Weinberg, the major hypothesis for the study was formulated: Educational achievement is at or above the expected mean-grade equivalent for both black and white students when the racial composition of a school has remained majority white; and conversely, that educational achievement is below the expected mean-grade equivalent for both black and white students when the racial composition of a school has remained majority black or has racially changed from white to black over a period of time.

Methodology

There are many available measuring instruments that record the scholastic achievement of youngsters in schools. In order to measure the rate of learning in Memphis schools, standardized academic achievement tests were administered, based on the comprehension of curriculum material for given grade levels and given subjects. Students' scores can then be compared on a scale against the progress of other pupils, classes, schools, or a total school system to learn if

academic performance, or educational achievement as it is often labeled, is at the full grade level. One form of interpreting students' scores on achievement tests is the "grade equivalent." A grade equivalent of a particular raw score is the grade level of those pupils whose median (or arithmetic mean) is the same as the raw score in question," (Ahmann and Glock, 1971.) In other words, if the median raw score was 53 for a test administered to fifth-grade pupils just beginning that grade level, all raw scores of 53 have a grade equivalent of 5.0. There is a generally accepted way of reporting grade equivalents which is in terms of two numbers. The first of these two numbers is designated as the year number and the second as the month number. For example, a grade equivalent of 3.7 is the median raw score of pupils tested at the seventh month of the third grade. It should be noted that school calendars usually are divided into nine academic months.

Computing grade equivalents is a systematic process. First, the standardized achievement tests are administered to large groups of pupils in consecutive grade levels. This takes place at the same time of year for all pupils so that they may be judged fairly. Next, the median raw score of each grade level is found and plotted against the grade level. Then the "best-fitting" curve is passed through the points. The grade equivalents of raw scores are read from this curve, (Ahmann and Glock, 1971). The grade equivalents by schools and grades may then be printed out

on sheets of paper so that a school district can assess its pupils' growth. This was the form in which the Memphis School District scores were available. An average score of all subjects tested for a particular grade is the "total grade equivalent." Each pupil and each grade has a total grade equivalent. This study used the "total grade equivalents" for all Memphis students. When the total grade equivalents for all students in a school system for a particular grade are averaged together, a "mean-grade equivalent" is then available for analysis.

Like other forms of academic measurement, grade equivalents have their limitations. But despite their shortcomings, grade equivalents scores have been widely used and well received, especially in the elementary grade levels in American schools. Grade equivalents have been more easily understood than such devices as standard scores or percentile ranks, (Ahmann and Glock, 1971). It is more comprehensible to many teachers, administrators, and parents to compare a pupil's actual grade level with his/her grade equivalents yielded by tests in various subject matters. Grade equivalents have thus become graphic and convenient units for plotting pupil achievement profiles. Pupils' scores can also be compared to see if there is a significant correlation between their educational achievement and their personal characteristics such as race, social class, and economic status. For example, the differences between the mean-grade equivalent scores can be statistical-

ly analyzed to determine if high, medium, or low socioeconomic status is a significant factor. The same can be done with data on race, ethnicity, self-concept, teacher perceptions of students, etc.

In order to test the hypothesis for this study, Memphis Public School data was obtained from the attorneys for the defendants in the Northcross vs. Board of Education court case. Educational achievement data was available in the form of mean-grade equivalents obtained when Memphis students took the 1970 edition of the "Metropolitan Achievement. Tests Series" published by the Test Department of Harcourt, Brace, and Jovanovich, Inc. The tests were administered in May of the 1970-71 school year to all students in the Memphis Public School System. The results from grade levels one through six were obtained for this study. The tests measured skill learning for each grade level in the following areas: word knowledge, **comprehension** word analysis, reading, language, spelling, mathematical computation, mathematical concepts, mathematical problem solving, natural science, and social studies. The scores that were utilized for this study were "total grade equivalents" which were the total average of all subject areas tested for that grade level. All Memphis elementary students' scores were used for this study; samples were not taken from each grade level or each school.

In addition to educational achievement data, information was obtained on two additional variables, the race and so-

cio-economic background of Memphis elementary students. Racial composition of the elementary schools was obtained from a report of the Memphis Board of Education titled: "Report Showing Enrollment of Schools by Race Commencing with the 1961-62 School Year and Continuing to Present (1971-72)." The socio-economic background of the students was obtained from a Board of Education report on the poverty level in Memphis City Schools for the school year 1972-73. Both the percent and the number of poverty level children in each school was listed.

The 110 Memphis elementary schools used in the study contained 74,469 students. (There were a few other Memphis elementary schools in addition to the 110; however, they were eliminated due to lack of data regarding one of the three variables.) Of the 74,469 Memphis elementary students in the first through sixth grades, 35,149 were white (47.2%) and 39,320 were black (52.8%). All elementary students were used in this study; samples were not taken from each grade level or each school.

The schools were divided into three major groups according to their total racial composition over ten years.

The three racial composition groups were: (1) "white-white" (the student population at these 57 schools had been predominantly white in the 1961-62 school year and had remained predominantly white through the 1970-71 school year, (2) "black-black" (the student population at these 37 schools had been predominantly black in the 1961-62

school year, had gradually changed, and was predominantly black in the 1970-71 school year.

Each of the three racial composition groups was then subdivided into three additional groups according to the socio-economic background of the students attending those schools. Arbitrary cut points of poverty level were chosen, relative to the data used. This was an available measure in order to conveniently split the group of scores into three SES groups. The schools within each racial grouping that had less than 11% poverty level students were designated as high SES (socio-economic status) schools, those with 11-30% poverty level students were designated as medium SES schools, and those with more than 30% poverty level students were designated as low SES schools. Thus, white students could fall into one of nine groups according to the racial composition and SES level of their schools and black students could fall into one of nine groups based upon the same criteria.

In order to test the hypothesis and to analyze what significance race and socio-economic status had upon black and white elementary students' achievement scores, a statistical correlation was performed on the data.

In summary, the purpose of this study is to examine the relationship of school racial composition over a ten-year period with the educational achievement of black and white elementary students, while at the same time controlling for socio-economic influences. This thesis grew out of a school

desegregation court suit brought by the N.A.A.C.P. in Memphis, Tennessee, and is utilizing information from that case. The material that is being examined is elementary student educational achievement data in the form of grade equivalents, the racial composition of the elementary schools, and the socio-economic background of the elementary students. A statistical correlation was used to test the following hypothesis:

Educational achievement is at or above the expected mean-grade equivalent for both black and white students when the racial composition of a school has remained majority white; and conversely, that educational achievement is below the expected mean-grade equivalent for both black and white students when the racial composition of a school has remained majority black or has racially changed from white to black over a period of time.

CHAPTER II -- RESULTS

The results as a whole of Memphis elementary student achievement data correlated with racial and SES data are shown in Table 1. They are indicated in the form of mean-grade equivalents, as explained in the previous chapter. (As an example, Table 1 shows that white first graders in high SES, predominantly white schools have a mean-grade equivalent of 2.0. This means that they are achieving as well as second graders just beginning that grade level. This is higher than the level at which first graders are expected to achieve. The test was administered in May, the ninth academic month of the school year, so the scores should reflect the grade level plus nine months of academic growth. Thus, first graders' mean-grade equivalents should be 1.9, second graders' should be 2.9, third graders' 3.9, etc.)

The results are also graphically represented in Figures 1-6 by indicating deviations above or below the expected grade equivalent for May of the school year. (This means that instead of representing the exact mean-grade equivalent of the students, the graphs indicate how much their scores fall above or below the expected mean-grade equivalent. In other words, if first graders in the ninth academic month are expected to have a mean-grade equivalent of 1.9, and instead have a mean-grade equivalent of 2.0, then this number is represented as one deviation above the expected mean-grade equivalent. The expected mean-grade equivalent is indicated on the six graphs by a heavy double line at zero.

Students' mean-grade equivalents that are higher than the expected are represented by positive deviations above the double line and students' mean-grade equivalents that are lower than the expected are represented by negative deviations below the double line.) Figures 1-3 show the results of white students in three types of racially composed schools, and Figures 4-6 show the same for black students.

The mean-grade equivalent scores indicated that in general, both black and white elementary students in Memphis, Tennessee, achieved highest in schools whose student populations had remained predominantly white over ten years. Although achievement was consistently higher for both black and white students in high SES schools, the racial composition of the school over ten years did make an appreciable difference. (Because there were no high SES predominantly black elementary schools in the Memphis Public School System, achievement scores of white and black students in this type of setting could not be analyzed.)

A. White Students in "White-White Schools"

White Memphis elementary students attending the 57 schools that had remained predominantly white over the ten year period consistently scored at or above the expected grade equivalent. (See Table 1) This is also clearly indicated by the three SES lines in Figure 1. White students in the 49 high socio-economic white schools scored on the average above the expected grade equivalent in all grades,

Table 1. School Racial Composition over Ten-Year Period as related to Results of May, 1971, Memphis Metropolitan Elementary Achievement Tests, indicated in Mean-Grade Equivalents.

RACE	WHITE-WHITE (57)			BLACK-BLACK (37)			WHITE-BLACK (16)		
SES	High (49)	Med. (7)	Low (1)	High (0)	Med. (8)	Low (29)	High (4)	Med. (4)	Low (8)
1st Grade									
White	2.0	1.9	2.0		1.7	1.7	1.9	1.7	1.6
Black	1.7	1.6	1.7		1.7	1.6	1.6	1.6	1.5
2nd Grade									
White	3.1	3.0	2.8		3.3	3.3	2.9	2.6	2.3
Black	2.6	2.4	2.3		2.7	2.4	2.5	2.3	2.2
3rd Grade									
White	4.4	3.8	3.9		3.2	3.2	4.2	3.4	3.1
Black	3.3	2.7	3.5		3.3	3.1	3.2	3.1	2.8
4th Grade									
White	5.6	4.7	5.1		4.8	5.0	5.4	3.6	4.3
Black	4.7	3.6	4.6		4.1	3.7	3.8	3.8	3.6
5th Grade									
White	6.4	6.0	5.4		4.1	4.6	6.3	5.8	4.6
Black	5.6	5.0	4.3		4.7	4.4	4.8	4.8	4.2
6th Grade									
White	7.5	6.7	6.9		9.8	5.3	7.3	6.7	6.0
Black	5.5	5.1	5.9		5.5	5.1	5.6	5.5	4.8

White students = 35,149 (47.2%)

Black students = 39,320 (52.8%)

Total students = 74,469

Total schools = 110

High SES schools = schools with less than 11% poverty students

Medium SES schools = schools with 11-30% poverty students

Low SES schools = schools with more than 30% poverty students

Deviations from the
Expected Mean-Grade
Equivalent

Grades

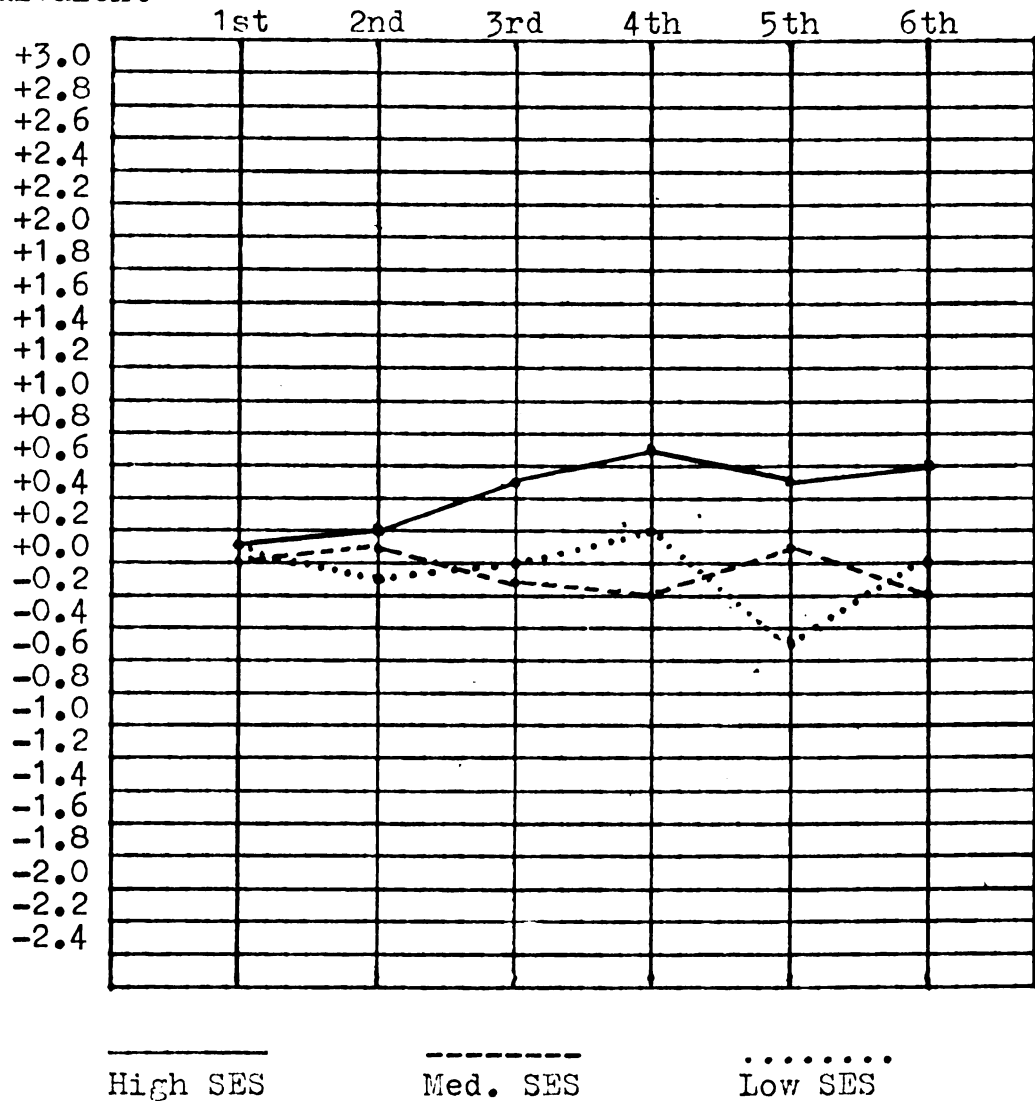


Figure 1. White Students in "White-White" Schools over Ten Years

Deviations from the
Expected Mean-Grade
Equivalent

Grades

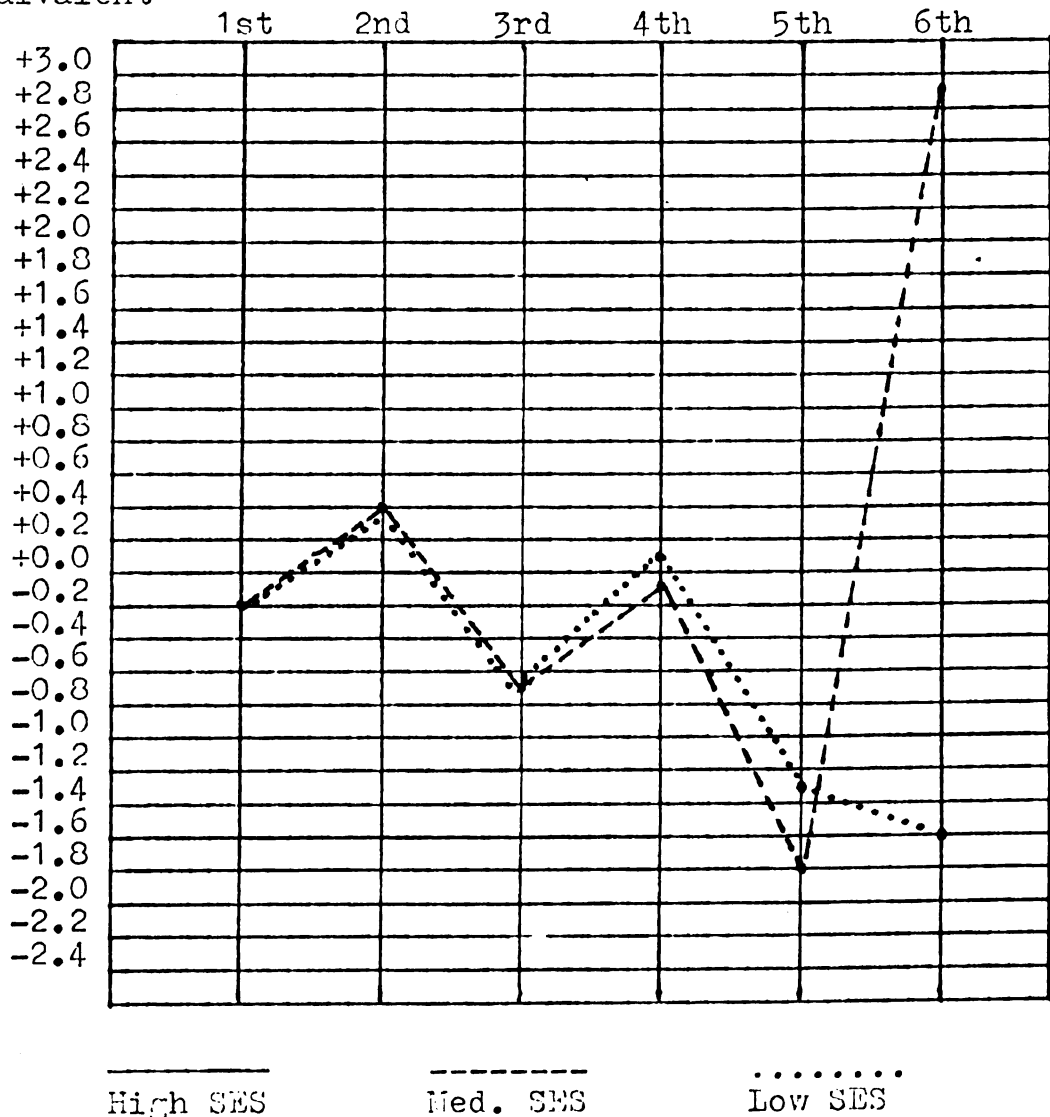


Figure 2. White Students in "Black-Black" Schools over Ten Years

Deviations from the
Expected Mean-Grade
Equivalent

Grades

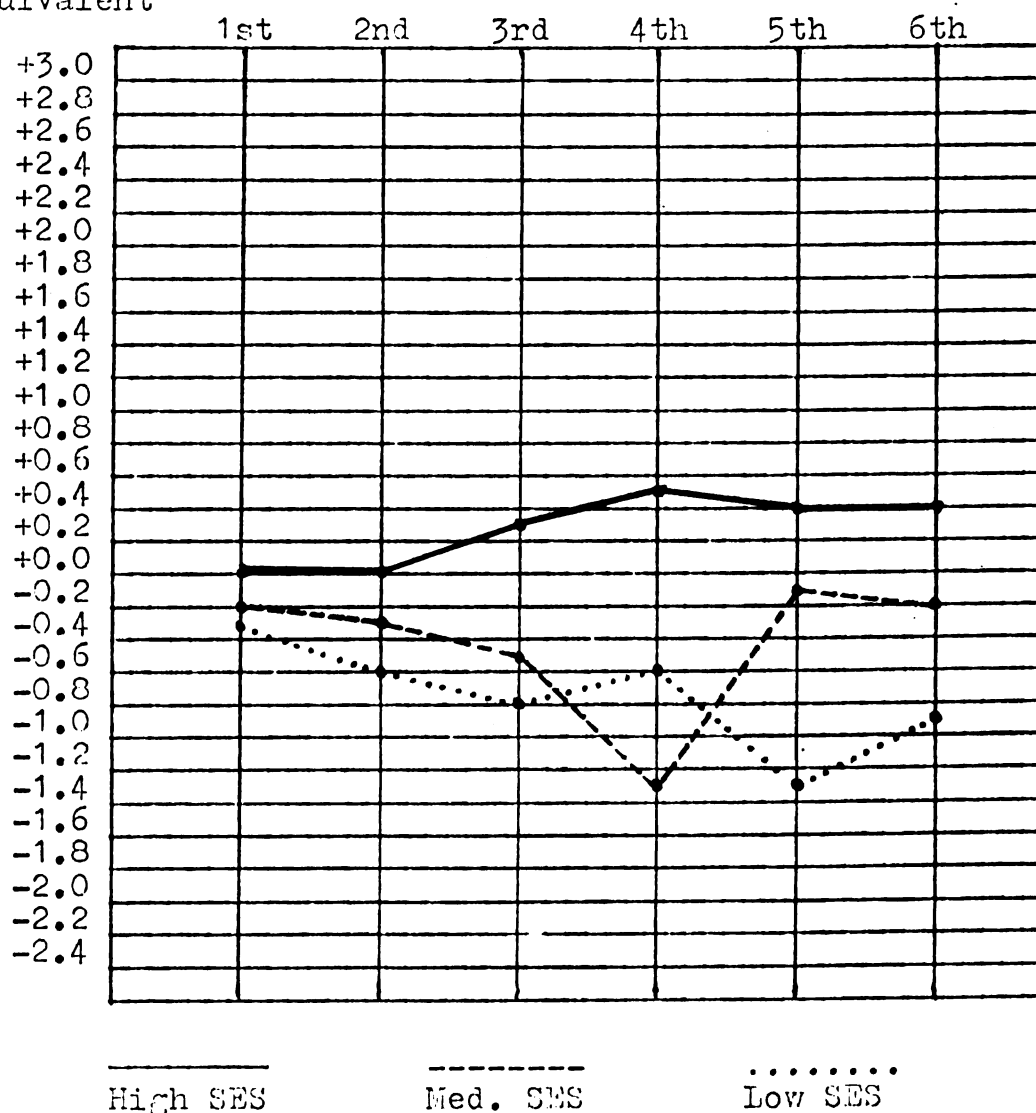


Figure 3. White Students in "White-Black" Schools over Ten Years

Deviations from the
Expected Mean-Grade
Equivalent

Grades

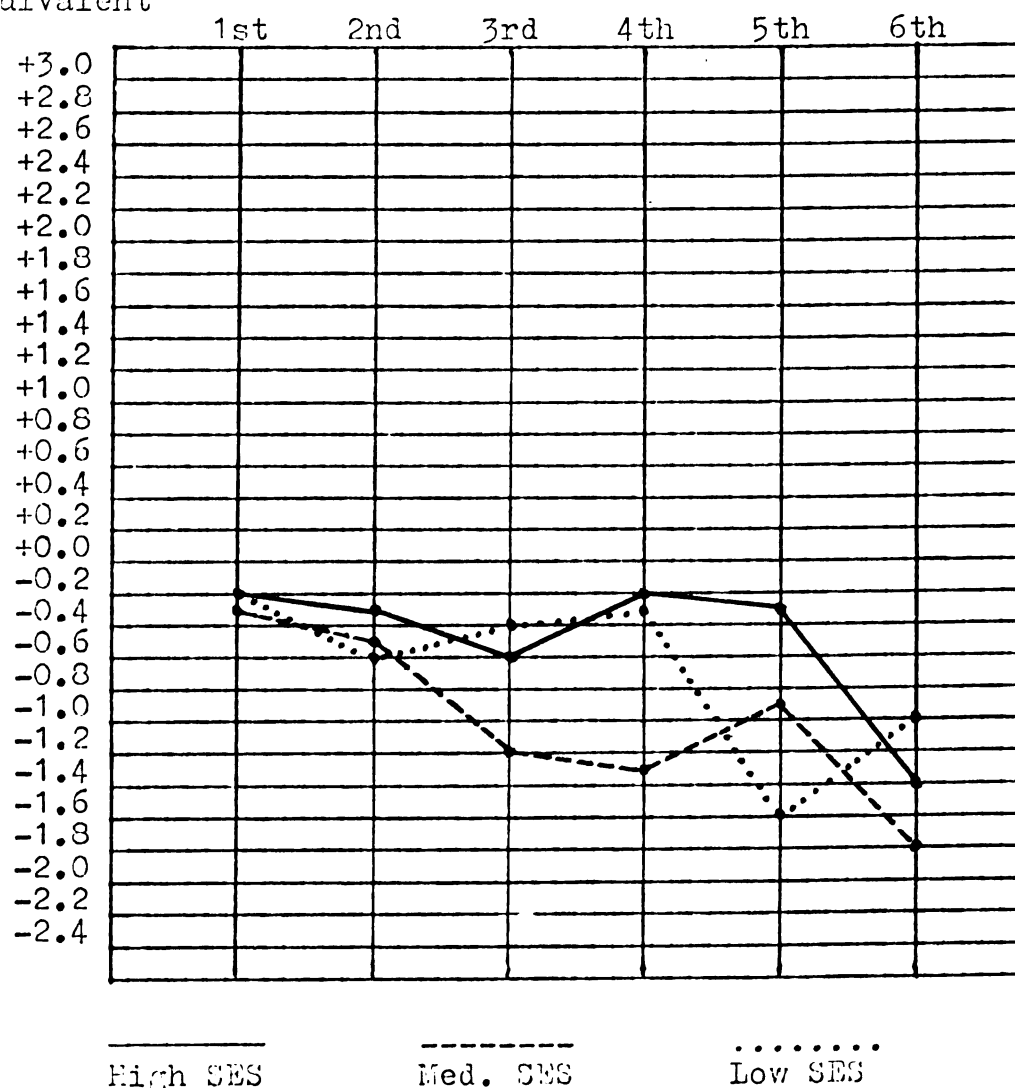


Figure 4. Black Students in "White-White" Schools over Ten Years

Deviations from the
Expected Mean-Grade
Equivalent

Grades

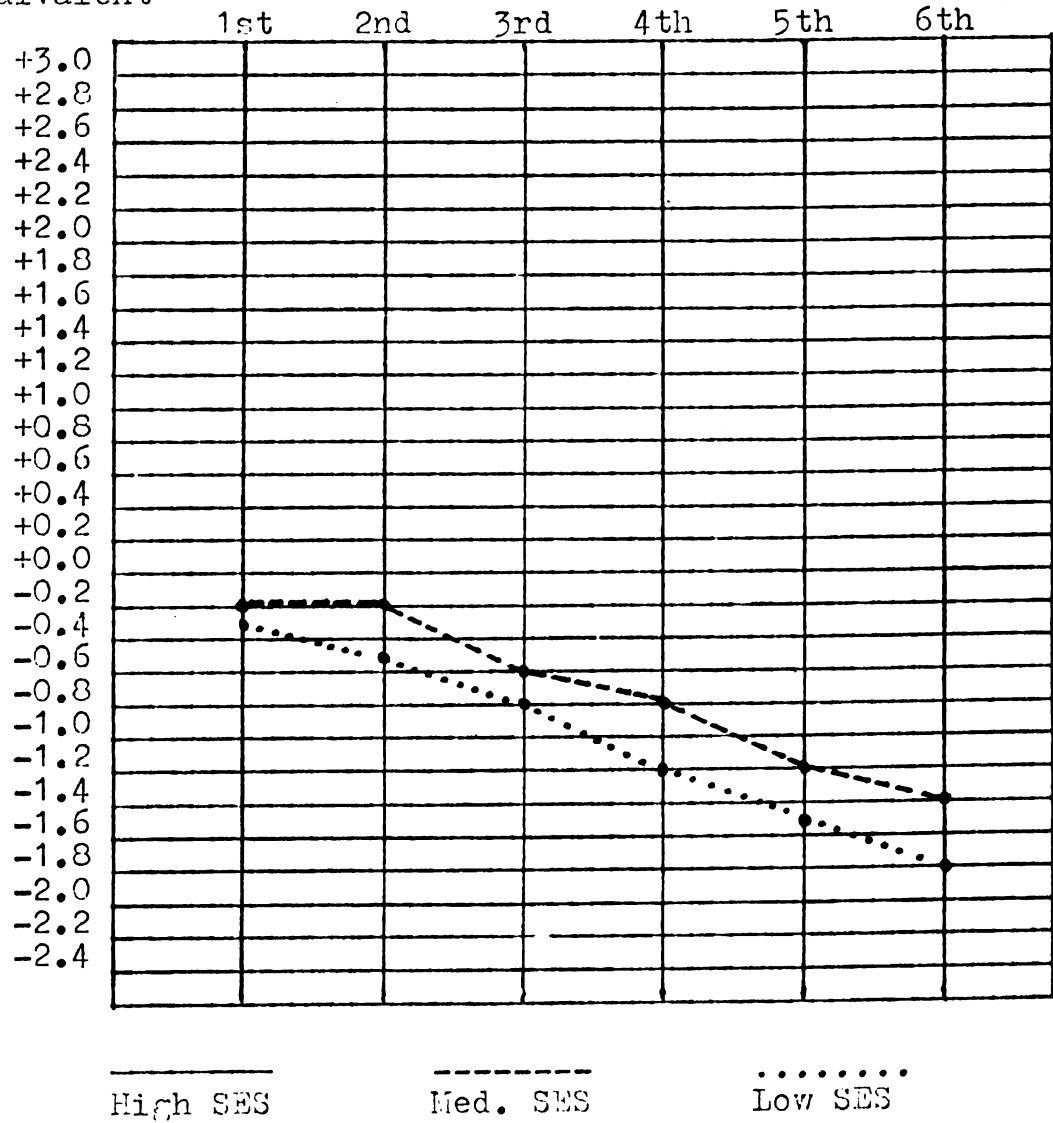


Figure 5. Black Students in "Black-Black" Schools over Ten Years

Deviations from the
Expected Mean-Grade
Equivalent

Grades

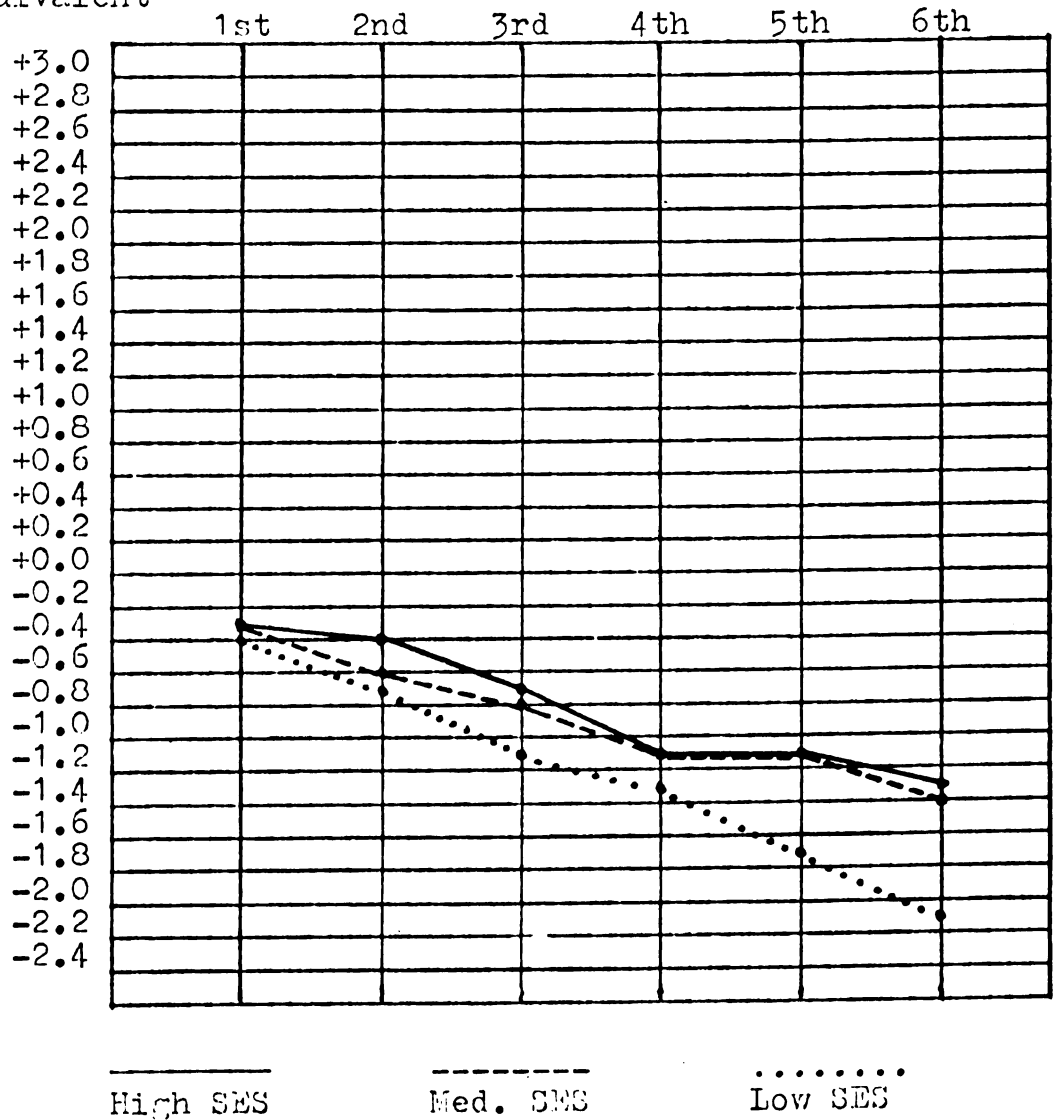


Figure 6. Black Students in "White-Black" Schools over Ten Years

first, through sixth. Youngsters in seven middle and lower SES white schools varied from grade to grade, but there was no great difference between the two sets of students. At times middle income school students achieved higher, but in other grades such as the third, fourth, and sixth, the lower income school students achieved higher than middle income and were at or above the expected grade equivalent.

B. White Students in "Black-Black" Schools

White Memphis elementary students attending the 37 schools that had remained predominantly black over ten years showed no consistent pattern to their achievement. (See Table 1 and Figure 2.) It varied greatly from grade to grade. Figure 2 shows this erratic up and down pattern in the achievement of white students in eight middle and 29 lower income black schools. In the first grade, both middle and lower income school students are below their expected grade equivalent. Although their achievement rises and falls in the same pattern, it is difficult to understand why it alternates above and below the expected grade equivalent so wildly. The most erratic swing of the curve occurs in the sixth grade when white students in middle SES black schools achieve almost three grade equivalents above the expected norm, while white students in lower SES black schools are achieving 1.6 grade equivalents below their norm.

C. White Students in "White-Black" Schools

White Memphis elementary students attending the 16 schools that had been predominantly white in the 1961-62

school year, and whose student population was predominantly black in the 1970-71 school year generally scored below those schools that had remained predominantly white over ten years. (See Table 1 and compare Figure 1 to Figure 3). Although white students in the four high SES "white-black" schools consistently achieved at or above the mean, they did not score as well as white students in high SES "white-white" schools. White students in four middle and eight lower income "white-black" schools scored below the expected grade equivalent. The opposite phenomenon existed in the schools that had remained predominantly white over ten years.

D. Black Students in "White-White" Schools

Black Memphis elementary students attending the 57 schools that had been predominantly white for ten years scored on the average below the expected grade equivalent. This was also true for black students in 37 schools that had remained predominantly black and 16 schools that had changed from predominantly white to predominantly black. (See Table 1 and Figures 4, 5, and 6.) Therefore, despite the race or the SES background of the school student populations, black elementary students on the average in Memphis scored below the expected grade equivalent. In regard to predominantly white schools, black elementary students achieved better in the 49 high SES schools than in the seven middle or the one lower SES schools for all grades except the third and sixth. In those two grades, black students achieved highest in low SES, predominantly white schools. Black

students in lower SES white schools also seemed to achieve better than the black students in middle income white schools.

E. Black Students in "Black-Black" Schools

As stated above, black Memphis elementary students attending the 37 schools that had been predominantly black over ten years achieved on the average below the expected grade equivalent. (See Table 1 and Figure 5). Some other things can be clearly seen from the graph. First, black students in the eight middle income black schools are achieving at a higher rate than black students in the 29 lower income black schools. Although the gap varies slightly it stays between .2 and .4 deviations in difference. Another apparent result is that the black students consistently fall farther below the expected grade equivalent as they rise in grade level. (There are no high SES black elementary schools, therefore, no scores are available in this area).

A very interesting phenomenon can be seen when black students' scores are compared in only middle income schools that are predominantly white, predominantly black, and changing racially. Black students in predominantly black, medium SES schools score higher than their counterparts in predominantly white and racially changing medium SES schools. (An exception to this is the fifth grade where black students in predominantly black schools score lower than in the other two types of schools). This significant phenomenon is a glaring exception to the hypothesis that both black and white students achieve the highest when they

are in predominantly white schools. Black students in predominantly black, low SES schools also achieve higher than their counterparts in low SES racially changing schools. However, they do not achieve higher than the black students in predominantly white, low SES schools.

F. Black Students in "White-Black" Schools

As stated in section D, black Memphis elementary students attending the 16 schools that had once been predominantly white (1961-62 school year) and had changed to predominantly black (1970-71 school year) achieved on the average well below the expected grade equivalent. (See Table 1 and Figure 6). Black students in the four high SES changing schools scored slightly better than those in four middle and eight lower SES schools. Black students in medium SES schools scored slightly higher than those in lower SES schools. As in predominantly black schools, the gap got wider between the SES levels as black students progressed from the first to the sixth grade. They also fell farther below the expected grade equivalent. Black students in lower SES changing schools were over two grades behind the expected grade equivalent by the time they were in the sixth grade. These scores were also below those of black students in predominantly white schools and in predominantly black schools.

In summary, white students achieved at or above the expected grade level in each type of racially composed school, while black students achieved below the expected

grade equivalent in these same schools. However, this report is attempting to examine different racial and SES school settings with the goal of discovering which learning environment leads to maximum academic achievement for each student, and is not intended to show that one race of students achieves better than another race.

White students generally achieved the highest in schools that remained predominantly white over ten years. They also generally achieved highest if they were in high SES schools rather than middle or lower SES schools, despite the racial make-up of the school. Black students also generally achieved highest in predominantly white schools. A noticable and significant exception to this, however, was the group of black students in predominantly black, middle SES schools that scored higher than their counterparts in middle SES, predominantly white and racially changing schools.

CHAPTER III --- DISCUSSION AND ANALYSIS OF RESULTS

The overall results of this study indicate that both black and white elementary students in Memphis on the average achieved highest in schools whose student populations had remained predominantly white over ten years, despite the socio-economic level of the school population. (The one large exception to this of black students in middle class black schools will be discussed later). The overall results agree with the results obtained in most educational achievement studies reported in the literature, (Katz, 1966; Wilson, 1959; Wilson, 1960; Coleman, 1966; U.S. Commission on Civil Rights, 1967; Weinberg, 1965; Weinberg, 1968; Sexton, 1961; Crowley, 1932; Pettigrew, 1971; Dumbarton Research Council, 1966; Portland, Oregon, Board of Education, 1964; etc.).

White students in the 57 predominantly white Memphis schools over a ten-year period scored two to ten months (+.2 to +.10 deviations) over their white counterparts attending the 37 predominantly black schools and the 16 schools that had changed racially from white to black. (The one exception to this concerning white students is in the sixth grade in predominantly black middle SES schools. The white students are almost three years ahead of the sixth grade norm. A possible explanation could be that there are only eight schools involved in this particular group and a few very high achieving students could sharply affect the mean.) Socio-economically, the white schools were broken down into three

groups: 49 high SES schools, seven medium SES schools, and one low SES school. These predominantly white schools for a ten-year period, which experienced very little contact with black students, must have been located in neighborhoods experiencing little racial change. These schools are described as "stable" schools since the population of the neighborhood in which the school is located has remained fairly constant over an extensive period of time. Although there is much literature regarding the effect of race and SES on the educational achievement of elementary students, there has been very little written on the effect of stability of neighborhoods, stability of schools, or stability of racial composition within schools over an extended period of time in relation to education.

Stability within a neighborhood surrounding a school does suggest some sociological factors that might be operating to make that school's students better achievers. Families who have not been excluded from conditions conducive to stability (i.e. jobs, educational qualifications, adequate housing, suitable incomes, health care, etc.,) can also be assured of some level of quality education. Their position within the community assures that accountability and responsibility for a good education is placed on the school and society, rather than just on the children themselves, (Erickson, Bryan and Walker, 1972). The American public school system not only mirrors the larger society, but also significantly maintains it.

The most significant finding of the study, however, is reflected in the performance of black students in black, middle SES schools. Just as in the case with white students, black students also generally achieved higher in the predominantly white schools, but by a smaller margin. This pattern continued for all socio-economic levels, but was broken by black students in predominantly black middle SES schools. Although all of the achievement scores of black Memphis students are below the expected grade equivalent, the black students in predominantly black medium SES schools scored higher than their counterparts in predominantly white and racially changing medium SES schools. Black students in predominantly black, low SES schools also achieved higher than their counterparts in low SES racially changing schools, but lower than the black students in predominantly white, low SES schools. This phenomenon strongly suggests the significance of stability over time within school settings and neighborhoods. The same variables discussed above that exist in stable white community schools would be operating within stable black community schools.

Educators often appear to be more accountable and responsive to the goals of parents in stable middle class environments because they view this as appropriate majority American behavior, (Erickson, Bryan, and Walker, 1972). A teacher's expectations of pupils' academic performance plays an important part in the classroom and is related to the social status of the pupil, (Erickson, Bryan, and Walker, 1972; Katz, 1971). Teachers expectations and perceptions of

pupils' performances have been shown to be educational self-fulfilling prophecies, (Rosenthal and Jacobson, 1968). If teachers and parents have mutual goals based on respect and appreciation of each other's cultural and social status then student achievement will progress more rapidly.

Teachers and administrators in middle class schools have been found to less often place the blame on children because of low IQ levels and feel less contempt and indifference toward students because they consider them socially equal. Middle and upper income neighborhoods also usually have been in control of their school boards and thereby in control of what goes on in the schools and the method of distributing rewards, (Sexton, 1961).

Environment has been shown to be a significant factor in educational achievement. Both black and white middle class parents expose their children to more of the experience that are reflected in educational achievement and IQ tests. This is not to say that middle class cultural experiences are better than lower class cultural experiences; it means, however, that the bias of many tests reflect middle class life and experiences, which in addition covaries with the privilege or power of the predominantly white majority, (Blauner, 1972). Thus, many test scores are a less meaningful predictive device for black youngsters. Studies have shown that middle class background with its accompanying features of parental education, parental occu-

pation, parental presence, conversation, and interaction, etc. have correlated highly with educational achievement, especially reading scores, (Whitman and Deutsch, 1968). Another explanation for some higher scores in predominant-ly black schools is student self-concept. Some predominantly black schools which are effectively run by black administrators and teachers in close contact with black parents have successfully raised the self-concept of black students. Recent research has found that this has a direct correlation with higher academic achievement, (Hogan, 1969; Brookover, 1962, 1965, 1967, 1969, 1971; Banks and Grambs, 1972).

The studies reported earlier (Coleman, 1966; Weinberg, 1968; U. S. Commission on Civil Rights, 1967; etc.) all emphasize that both an extensive exposure to high SES students and a greater proportion of white students is directly related to higher academic achievement in both black and white students. Exposure to higher SES has proved to be a more critical factor than race; however, in American society the two factors often are intertwined. The research also goes on to say that this relationship increases as grade in school increases and as desegregation in schools increases over time. Stability of school and neighborhood can only be inferred from these research findings. It must be emphasized that there is a direct relationship between educational achievement and the two variables of race and SES in

the Memphis study and the literature cited. This only means that there is a relationship among the three factors of achievement, race and SES. It does not, however, imply a cause-and-effect relationship. A number of other variables are operating in a school which cannot be easily measured; thus, a cause-and-effect relationship must not be inferred from these findings.

There are many other variables that must enter into the educational process. Research studies have recently examined the allocation system in America. They have found that more dollars, highly rated teaching expertise, better physical plant, less-crowded classrooms, up-to-date scholastic aids and resources, and credibility among the academic community are allocated more to predominantly white, high and middle class suburban schools, (Katz, 1971; Sexton, 1961; Green, 1969; Pettigrew, 1971; U. S. Commission on Civil Rights, 1967). Numerous school desegregation suits have shown that poor, urban, and black schools have been given the short end of the educational stick. The longer a school system has been in operation, the more entrenched this phenomenon becomes. It is self-perpetuating.

And this phenomenon did exist in the Memphis School System. The court has ruled that deliberate, segregated housing and school zoning patterns led to one-race schools, (Northcross vs. Board of Education, 1971). The court also

ruled that white-dominated economic practices in Memphis "denied most of the employment opportunities" to blacks and that "...the City and County Boards of Education established separate and unequal schools in the immediate vicinity of Negro concentration." When white families began an out-migration of Memphis inner city areas, "...the lending institutions discriminated against blacks, thereby preventing them from joining the whites in the out-migration." This combination of discriminatory economic, housing, social, political, and educational practices has led the Memphis court to rule **on** education for black youngsters. It is this type of practice that could often lead to higher academic achievement in predominantly white schools than in predominantly black or racially changing schools.

Another factor that has a direct relationship to lower educational achievement in racially changing schools is the migration process. Both black and white Memphis students generally achieved below the mean in these schools. Since both black and white students in predominantly black schools achieved higher than those in the racially changing schools it cannot be explained in terms of race. Research studies indicate that SES data changes as migration occurs, (Taeuber and Taeuber, 1965; Price, 1969). Higher social class and more mobile black and white families move out of racially changing neighborhoods.

In the South, in particular, upwardly mobile black families still tend to move to and/or reside in neighborhoods

that are predominantly black and middle class. If these neighborhoods were white, they might be thought of as lower or working class neighborhoods. But a purely economic definition does not suffice here. They must be perceived as black medium SES neighborhoods with all the accompanying sociological attributes of middle class neighborhoods such as steady income, high aspirations of families, strong parental influence, etc. Physical separation on the basis of race as well as SES is still very much a part of the prevailing reality of social existence. On the other hand, what is suggested here is that upwardly mobile people share many psychological and structural advantages over individuals and groups that are less mobile. From the perspective of this study, therefore, the children of black and mobile families are in a more advantageous position in the learning and educational process than their less mobile counterparts. The findings in this study show that black youngsters in predominantly black middle class schools are clearly leading other black youngsters in achievement. The influence of middle class life with all the variables accompanying it cannot be ignored. Poor blacks and whites, however, cannot afford to relocate and so are forced to remain in lower SES neighborhoods with transient populations, often equipped with inferior, run-down schools, (Levy, 1970; Katz, 1971; Sexton, 1961; U.S. Commission on Civil Rights, 1967; U.S. Commission on Civil Disorders, 1968).

Memphis migration patterns corresponded directly with school segregation practices, (Northcross vs. Board of Education, 1971). The ruling in the 1971 court suit against the school board of Memphis indicated that as out-migration of white families occurred, boundary lines were changed to perpetuate one-race schools. Also little was done by the school board to minimize overcrowding in predominantly black schools. The court ruled these schools to be academically inferior. Possible migration of black families which could have relieved overcrowding, was further curtailed by racially restricting actions of the FHA, the Memphis Housing Authority, realtors, and lending institutions. The school board participated in these actions by discriminating in the location and construction of new Memphis schools.

Inherent in this analysis of changing achievement scores related to migration patterns within a city is the "tipping phenomenon." Basically, it centers around just how many black students can be enrolled in a school before white families flee from the school and the neighborhood. Educators have tended to use the figure of 30-40% black students within a school as the maximum number of black students before white families move. School and city officials explain the tipping phenomenon in terms of changing residential housing patterns, busing, voluntary attempts at increased integration such as transfers, fear of crime and violence, blatant racism, and/or ignorance, ("The Tipping

Point", Newsweek, November 1972). School and city officials have done little to alleviate the ignorance of white parents who express fear of the unknown situation of their children attending classes with black children or a drop in the quality of education. Until this is dealt with, "tipping" will continue to occur.

In summary, the results of this study show, based on manipulations of the data, that overall, both black and white elementary students in Memphis, Tennessee, generally achieved the highest in schools whose student populations has remained predominantly white over a ten-year period despite the socio-economic status of the school. Both black and white elementary students in Memphis, Tennessee, achieved the lowest in schools whose student populations had changed from predominantly white to predominantly black over a ten-year period, despite the socio-economic status of the school. White students in a small sample of Memphis elementary schools that had remained predominantly black over ten years had an erratic pattern of high and low achievement; thus from this study little can be accurately concluded regarding white student achievement in predominantly black schools in Memphis. Because there were no high SES predominantly black elementary schools in Memphis, Tennessee, no achievement scores in this area were available for analysis; thus nothing can be concluded regarding either black or white elementary students in this type setting. Black elementary

students in predominantly black middle class schools achieved appreciably higher than their black counterparts in predominantly white middle class schools and in racially changing middle class schools. This is a most significant and notable exception to the hypothesis that all students, both black and white, will achieve their highest in predominantly white schools. Black elementary achievement scores in Memphis were consistently below white elementary achievement scores despite the racial composition of the school over ten years or the SES of the school. All black elementary students in Memphis, Tennessee, were achieving below the expected grade equivalent and fell further behind as they advanced from the first to the sixth grades. The pervasive patterns of Memphis residential and school segregation have a direct relationship to elementary academic achievement.

CHAPTER IV-- CONCLUSIONS AND RECOMMENDATIONS

Conclusions

In the study, school racial composition and socio-economic data and their relationship to black and white elementary student achievement in Memphis, Tennessee, have been analyzed. It was hypothesized that educational achievement is at or above the expected mean-grade equivalent for both black and white students when the racial composition of a school has remained majority white; and conversely, that educational achievement is below the expected mean-grade equivalent for both black and white students when the racial composition of a school has remained majority black or has racially changed from white to black over a period of time. With one large exception, this was essentially borne out by the test results.

This large exception is very significant, however, and cannot be ignored. While the results confirm the hypothesis generally, the strength of this study lies in the insight that can be gleaned from examining black students' scores in predominantly black, middle SES schools. The higher academic achievement of black students in black, middle class settings is an exciting finding and raises a very important point for proponents of both integration and segregation methods of education. This finding suggests that integration is not necessarily a factor in increasing the academic achievement of black youngsters. It suggests that there are other factors operating in middle income black schools that

have somehow raised academic achievement of black youngsters. This finding also raises some serious questions in regard to our measures of success and our measures of achievement in schools. Because tests scores (and the way they are tabulated and designed) are so based on white middle class influences, they often are not an accurate measure of black youngsters' success. Thus, educational achievement data is often a less meaningful predictive device for blacks. Educational achievement data also does not say anything about all the other kinds of factors operating in schools, communities, families, and individual youngsters. It especially does not reflect the goals of education for black parents and their youngsters. It is in this light that high achievement of black youngsters in black middle class schools must be viewed as significant and must suggest new ways to examine achievement in the future.

It must be strongly emphasized that while there is a direct relationship between educational achievement and the two variables of race and SES in this study, that this in no way should imply a cause-and-effect relationship. A number of other variables are operating in a school setting which cannot be easily measured; thus, a cause-and-effect relationship must not be inferred from these findings.

This study's findings show that there is still a question of unequal access to opportunity structures in American society, including quality of education. Poor and black

children are still at a relative disadvantage when it comes to access to those avenues in society that lead to success. Court rulings in the Memphis case also showed that the disparity in educational quality, employment opportunities, housing, school zoning, migration, and economic conditions played a major role in the lower academic achievement of black and poor youngsters. The structural reality of present racial divisions is thus reflected in unequal education. This is, indeed, a sad indictment against American education which professes to be free and equal for all.

Recommendations

The results of this study on the Memphis Public School System are not unique. The majority of other U.S. city public school systems, North and South, exhibit similar characteristics in regard to patterns of migration, segregation, and educational achievement. The picture is indeed dismal, especially when one considers the voluminous amount of research on the educational achievement of black and white youngsters and how little of this has actually made a positive impact on educational officials who are responsible for school policy.

A recent piece of research examined the impact of the explanations of the poor academic performance of low-income youth on research and its implications for educational practice and social policy, (Hill, 1971). Hill did a content analysis of 71 research articles regarding educational achie

ment of low-income youth proposing that the literature follows these three conceptual models in explaining poor academic performance: (1) the clinical perspective which assumes that poor academic performance is a function of cognitive, personality, or cultural deficiencies in the child or the child's environment; (2) the structural approach which assumes that there are specific peripheral defects in the nature and organization of the processes in the school; and (3) the systemic perspective which proposes that there are pervasive structural defects in the schooling process which restrict a youth's option to attain knowledge competence and future work skills. Hill found that no one study was based on the need for massive systemic overhaul. Instead, the vast majority of research on academic achievement in regard to the disadvantaged was predicted on the first conceptual model, the clinical perspective. Poor academic achievement was most often blamed on the students themselves, their families, and their cultural backgrounds.

In the Memphis study, this author has purposely refrained from citing those sources whose assumptions seem inherently biased against poor and black children. Many studies may use identical data and statistical techniques, but operated from vastly different frames of reference. This Memphis study does not blame poor academic performance on racial or genetic characteristics. It is necessary to see

beyond mere academic achievement scores taken by themselves. SES status, stability of families and neighborhoods, teacher expectations of pupil performance, student self-concept, and parental input into school policies are all related to academic achievement. It is also necessary to examine the educational, housing, social, political, and economic system that continues to perpetuate vast inequities for a large portion of American school children. Although much of Jencks' (1972) findings and conclusions are unacceptable or questionable in light of other research studies, he does make a final recommendation that seems most appropriate for this study. Jencks states that American public policy has contributed little toward equality. The manipulation of marginal institutions like schools will not change the real fiber of American life. Educational change will only come about by political control over economic institutions that shape society. Jencks sees a socialistic change as the only real change and answer to the educational and equality gaps in American society. In the light of our past failures perhaps more than ever this suggestion must now be seriously examined by educators, sociologists, and public policy makers.

LIST OF REFERENCES

LIST OF REFERENCES

- Ahmann, J. Stanley and Glock, Marvin D.
1971 Evaluating Pupil Growth: Principles of Tests and Measurements, (Boston: Allyn and Bacon, Inc.), 4th ed.
- Bane, Mary Jo and Jencks, Christopher
1972 "The Schools and Equal Opportunity", Saturday Review of Education, September 16, 1972.
- Banks, James A. and Jean Dresden Grambs (Eds.)
1972 Black Self-Concept: Implications for Education and Social Science, (New York: McGraw-Hill Book Company).
- Blauner, Robert
1972 Racial Oppression in America, (New York: Harper & Row).
- Bouma, Donald H. and James Hoffman
1968 The Dynamics of School Integration: Problems and Approaches in a Northern City, (Grand Rapids, Michigan: William B. Erdman's Publishing Company).
- Brookover, Wilbur B. and Ann Paterson and Shaler Thomas
1962 Self-Concept of Ability and School Achievement, (Office of Research and Publications, Michigan State University, College of Education, Co-operative Research Project 845).
- Brookover, Wilbur B., Jean LePere, Don Hamachek, Shailer Thomas and Edsel Erickson
1965 Self-Concept of Ability and School Achievement, II, (School for Advanced Study, Educational Publication Services, Michigan State University, Report of Cooperative Research Project).
- Brookover, Wilbur B., Edsel Erickson, and Lee Joiner
1967 Self-Concept of Ability and School Achievement, III, (Educational Publication Services, Michigan State University, ERIC No. ED 101-796).
- Brookover, Wilbur B. and Edsel Erickson
1969 Society, Schools, and Learning, (Boston: Allyn and Bacon).
- Brookover, Wilbur B.
1971 "Student Role and Academic Self-Concept", The Encyclopedia of Education, Vol. 7, pages 557-560.
- Coleman, James S., et. al.
1966 Equality of Educational Opportunity, (Washington, D. C.: U. S. Government Printing Office).

Committee of Race and Education, Portland, Oregon, Board of Education

- 1964 Race and Equal Educational Opportunity in Portland's Public Schools, (Portland, Oregon: Board of Education).

Crowley, Mary R.

- 1932 "Cincinnati's Experiment in Negro Education", Journal of Negro Education, 1.

Deborah Northcross, et. al. v. Board of Education, Memphis City Schools, 444, F2d, 1179, 1971.

Dumbarton Research Council

- 1966 Race and Education in the City of Oakland, Draft (Unpublished study prepared for the U.S. Commission on Civil Rights, Menlo, California).

Erickson, Edsel L., Clifford E. Bryan, and Lewis Walker

- 1972 "The Educability of Dominant Groups", Phi Delta Kappan.

Green, Robert L.

- 1969 "The Urban School Child", Racial Crisis in American Education, edited by Robert L. Green, (Chicago: Follett Educational Corporation).

Hill, Sylvia Ione Belton

- 1971 "Race, Class, and Ethnic Biases in Research on School Performance of Low-Income Youth", in Dissertation Abstracts, 1971.

Hogan, Ermon O.

- 1969 "Racism in Educators: A Barrier to Quality Education", Racial Crisis in American Education, edited by Robert L. Green, (Chicago: Follett Educational Corporation).

Jencks, Christopher, et. al.

- 1972 Inequality: A Reassessment of the Effect of Family and Schooling in America, (New York: Basic Books, Inc.)

Katz, Michael B.

- 1971 Class, Bureaucracy, and Schools, (New York: Praeger Publishers).

Katz, Irwin

- 1964 "Review of Evidence Relating to Effects of Desegregation on the Intellectual Performance of Negroes", American Psychologist, June 1964.

- 1966 "Some Motivational Determinants of Racial Differences in Intellectual Achievement", International Journal of Psychology.

- Levy, Gerald
1970 Ghetto School: Class Warfare in an Elementary School, (New York: Western Publishing Company, Inc.)
- Pettigrew, Thomas F.
1972 Racially Separate or Together? (New York: McGraw-Hill Book Company).
- Price, Daniel O.
1969 Changing Characteristics of the Negro Population, (Washington, D. C.: U. S. Government Printing Office), U. S. Bureau of the Census, A 1960 Census Monograph.
- Rosenthal, Robert and Lenore Jacobson
1968 "Self-Fulfilling Prophecies in the Classroom: Teachers' Expectations as Unintended Determinants of Pupils' Intellectual Competence", in Social Class, Race, and Psychological Development, edited by Martin Deutsch, Irwin Katz, and Arthur R. Jensen, (New York: Holt, Rinehart and Winston, Inc.).
- Sexton, Patricia Cayo
1961 Education and Income: Inequalities in Our Public Schools, (New York: Viking Press, Inc.).
- Taeuber, Karl E. and Alma F.
1965 Negroes in Cities, (Chicago: Aldine Publishing Company).
- U. S. Commission on Civil Rights
1967 Racial Isolation in the Public Schools, I, II, (Washington, D. C.: U. S. Government Printing Office).
- U. S. National Advisory Commission on Civil Disorders
1968 Report of the National Advisory Commission on Civil Disorders, (New York: E. P. Dutton and Company).
- Weinberg, Meyer
1965 Research on School Desegregation: Review and Prospects, (Chicago: Integrated Education Associates).
- 1970 Desegregation Research: An Appraisal, (Bloomington, Indiana: Phi Delta Kappa).
- Whiteman, Martin and Martin Deutsch
1968 "Social Disadvantage as Related to Intellectual and Language Development", in Social Class, Race, and Psychological Development, edited by Martin Deutsch, Irwin Katz, and Arthur R. Jensen, (New York: Holt, Rinehart and Winston, Inc.).

Wilson, Alan B.

1959 "Residential Segregation of Social Classes and Aspirations of High School Boys", American Sociological Review.

1972 "The Tipping Point", Newsweek, November 27, 1972, Vol. LXXX, No. 22.

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