DOCUMENT RESUME

ED 117 252 UD 015 653

AUTHOR Coleman, James S.; And Others
TITLE Trends in School Segregation, 1968-73.
INSTITUTION Urban Inst., Washington, D.C.
REPORT NO URI-722-03-01
PUB DATE Aug 75
NOTE 150p.
AVAILABLE FROM Publications Office, The Urban Institute, 2100 M Street, N.W., Washington, D.C. 20037 ($3.50)

EDRS PRICE MF-$0.76 HC-$6.97 Plus Postage
DESCRIPTORS Civil Rights; *Comparative Analysis; Data Analysis; Educational Policy; Elementary Grades; Metropolitan Areas; *National Surveys; Racial Segregation; School Districts; *School Integration; *School Segregation; Secondary Grades; Social Discrimination; Statistical Data; *Trend Analysis

ABSTRACT

This paper reports work in progress concerning student desegregation among elementary and secondary schools in districts regardless of the source of segregation, and between school districts for the period of 1968-73. The data sources, the statistical reports collected by DHEW, are stated to allow for a detailed statistical analysis of the status and trends in school segregation by race throughout the U.S. First, the state of racial integration among schools within a district in 1968 is examined, followed by an examination of the changes that occurred over the period 1968-1973. The differential changes that occurred over that period of time in different kinds of school settings--in different regions of the country, in school districts of different sizes, and in particular large cities--is seen to be of special interest. Data indicate that, by 1968, desegregation of schools was a far from accomplished task in cities and towns of all sizes in the South, but that in the largest cities, it was equally high in many places where dual school systems had never existed: yet the trend for the next four years tends toward desegregation. It is concluded (1) that the emerging problem with regard to school desegregation is the problem of segregation between central city and suburbs, and (2) that current means by which schools are being desegregated are intensifying, rather than reducing the problem. (Author/AM)

Trends in School Segregation, 1968-73

James S. Coleman
Sara D. Kelly
John A. Moore

722-03-01
August, 1975

THE URBAN INSTITUTE
WASHINGTON, D.C.

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Publications Office

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ISBN 87766-147-02

UI 722-03-01

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Sara D. Kelly
John A. Moore

Urban Institute Paper 722-03-01

ERRATA AND MODIFIED CALCULATIONS

After this report was printed, we discovered some errors and some places where procedures used may have introduced a bias. We have recalculated results that might have been affected by these, correcting errors and using procedures which should eliminate the bias. The resulting changes affect some numbers in the text and tables, but with one exception, noted below, do not affect the general conclusions of the report. The modifications arise from sources as indicated below, with effects as noted.

1. In the analysis of segregation at elementary and secondary levels, it was originally decided, as explained in footnote 12, page 21, to measure segregation at elementary levels by including all schools containing a sixth grade and to measure segregation at secondary levels by including all schools containing a tenth grade. This was done for reasons described in footnote 12, page 21.

This, as it turned out, was not a wise decision. A number of school systems, particularly those undergoing desegregation of some sort, reorganized their schools to cover different grade spans, or in some cases, to become ungraded where the school had before been a graded school. This reorganization meant that for elementary/secondary analysis, different fractions of the students in the system and different fractions of the schools in the system were included in different years, in general a smaller fraction of the schools in later years because of the conversion from graded to ungraded schools, and the reduction in grade spans. Reorganization was primarily at the elementary level. For example, in 1968 the OCR data show that Dallas had 125 schools containing a sixth grade, 5 graded elementary schools ending below grade six, and 2 ungraded schools. In 1970 this was 123 with a sixth grade, 13 graded

ending below grade six and 1 ungraded. In 1972, the numbers were 109, 29, and 9. Thus in the later years, a larger number of elementary schools was excluded for being ungraded or failing to contain grade six.

In modifying the analysis, it was evident that because of school reorganization, no procedure for including a school in the elementary school sample or in the secondary school sample would be fully satisfactory. The procedure used for the modified calculations contained here was to classify any school as a secondary school if it included a grade 9, 10, 11, or 12. All other schools were classified as elementary. Inspection of a number of systems which had undergone some reorganization indicated that this procedure would give fewest misclassifications that might result in bias and that the amount of misclassification was very small.

The effects of the revised procedure are given below:

1a: On page 22, the numbers in Table 5 change as indicated in the attached revised Table 5. The revisions change no substantive conclusions, and lead to only minor rewording on page 21 where the table is described.

1b: On pages 34, 35, and 36, Table 9, Figure 3 and Figure 4 change as indicated in the attached. The substantive conclusions on page 34 about change at the two levels are modified slightly. In the U.S. as a whole, the reduction in segregation was greater at the secondary level, rather than equal to that in elementary, as stated there. But as described in the original text, there are opposite differences in different regions, with greater desegregation occurring in the secondary schools than in the elementary in the South, but greater resegregation occurring in secondary schools in the North.

1c: On page 47, Table 12 changes as shown in attached revised Table 12. The conclusions on page 48 are affected somewhat. It is no longer the case that in the 3 regions where within-district segregation was most reduced, between-district segregation increased more at the elementary level. Thus the suggestion cannot be made here that the movement of white families from a district in response to desegregation appears to be greater at the elementary level.

1d: On pages 77 and 78 are described the results of analyses at elementary and secondary levels. This analysis must be deleted, eliminating any conclusions about the relative loss of whites at elementary and secondary levels. This is the one most important change affecting a general conclusion of the report. That is, result number 10 on page 79 must be deleted. A comparable analysis has not yet been carried out for elementary and secondary as redefined, so the question of relative loss raised in that section cannot yet be answered. An attempt was made to get some idea about the answer to this question by examining white losses in the year of desegregation in schools with a grade ten and those without in cities listed on pages 62 as having undergone a drop of more than .1 in segregation in any one year. This gave an average loss of 14% of whites at secondary school and 13% at elementary (with 14% for all schools). There was greater loss in 5 of the 9 instances at secondary school and at 4 of the 9 in elementary school. From this analysis it would appear that the losses were about the same. However, this cannot be inferred because in general, desegregation was greater at secondary levels. In some cities, desegregation occurred primarily at one or

the other level (e.g., in Dallas in 1971, primarily at the secondary level and in San Francisco in 1971, at the elementary level). Thus the question must be left open.

2. Several modifications have been made affecting the analysis of the size of individual segregating responses to desegregation, the section on pages 53-80. In general the effects of these modifications are minor, but the earlier calculations did contain sources of bias or error, so that the recalculations are included here, even when they make little difference in overall interpretation.

The first modification has to do with eliminating schools with no teachers reported: For 1968-72 OCR obtained information on race of teachers, and we included that in basic calculations of segregation though none of those results are included in the report. When a school gave no report of teachers, the school was eliminated from the analysis for that year. (Schools were not identifiable from year to year, so that meant elimination only for that year). This failure to report teachers was very infrequent except in the case of a few districts, such as Los Angeles and Greenville, S.C., which gave no teacher reports in 1969, and thus were eliminated from the analysis for that year. This procedure would not in and of itself affect the analysis except that in 1973 OCR no longer obtained information on race of teachers so that all schools were included in our analysis in 1973. Because this meant we used a slightly different procedure for retrieving information in 1968-72 and in 1973, it could lead to possible biases in the result. Because the difference was very slight, the measures of changes in segregation were essentially unaffected. But the analysis of white loss upon desegregation might be affected so those analyses were recalculated. The effects on the results are indicated below. However, first, two other changes should be noted:

It was learned that the OCR data on Tucson, one of the next 47 cities after the largest 23, showed a combined elementary/secondary district in 1968 and 1969, and separate elementary and secondary districts in subsequent years. (There are in fact two separate districts, but governed under a single school board.) Because of this change in reporting, Tucson was eliminated in the modified calculations. (The "next 46" designation, however, is correct for the modified calculations, because the designation should have been "next 47" with Tucson, since Albuquerque from the first 23 replaced Richmond. See footnotes 22 and 23 on page 56).

An error was made in the lagged equations for 71-73 and 72-73 reported in Table 15. Although this did not affect conclusions drawn from the table, it does, along with the changes discussed above, affect the calculations.

The effects of these changes are given below:

Table 14 is changed as attached. The general effect of the changes is rather small, and will be described in discussion of the text on pages 60-65, which elaborates those tables.

The effects shown in the simple equation, Equation 1 in Table 14, described on pages 60-61, change little, with a very slight increase in estimated white loss with a .2 reduction in segregation for the largest 21 (from 5.5% to 5.6%) and a decrease from 1.8% to 1.1% for the next 46. The greater changes for the next 46 cities in these modified calculations than for the largest 21 is due to the exclusion of Tucson and the inclusion of 1969 data for Greenville, S.C. (the year before desegregation took place).

For Equation 2, discussed on page 63, the changes are slightly greater. For the largest 21, the loss becomes 6.8% for South and 4.0% for North (from 6.8% and 3.9%, only 0.1% in the North). For the next 46, the loss becomes 4.8% for South and no reliable estimate possible for the North, replacing 2.6% for

South and 0.2% for North. The absence of a reliable estimate for the North for the next 46 results from the fact that nearly all desegregation occurred in the South, resulting in a correlation of .98 between R and R x South. (See again footnote 26 on page 65.)

The fact that the loss for the next 46 (in the South) as estimated by Equation 2 and Equation 3 is so much greater than as estimated by Equation 1 results from the inclusion in Equation 2 and Equation 3 of the between-district segregation. This is especially low in some desegregating districts in the South, thus depressing the white loss in those cities.

On page 64, there are changes of 0.1% in numbers in the tabulation, with no changes in interpretation. On page 64, the revised calculations from Equation 3 (see attached) shows somewhat stronger effects of desegregation on white loss than before for the smaller cities and stronger intensification of the desegregation loss with increase in proportion black and between-district segregation.

Revised calculations for Table 15 are attached with no changes in interpretations resulting. Similarly on page 71 there are numerical changes which do not change interpretation (see attached).

Table 17 on page 72 changes as indicated in the attached. As pointed out in the footnote to the revised table, the estimated gains for Houston and Denver are very likely spurious due to territory annexed during the period of desegregation. Table 17 should, however, be taken with some caution as providing accurate estimates for individual cities because the high degree of multicollinearity creates some instability in estimates as described in footnote 26, page 65.

A strong caveat about the projected long-term effects as estimated on pages 74-75 should be added. These estimates must be regarded as conservative estimates of the effect of desegregation, because of the assumption, based on

weak evidence, that the direct effect of desegregation on white loss is a one-time effect which does not continue beyond the year of desegregation. The experience is not sufficient for strong inferences. However, examination of the losses in particular cities where desegregation occurred at a clear-cut point suggests the possibility of a continuing effect not shown by Table 15. For example, in Dallas, where the effect of desegregation in 1971 was not particularly strong (an increase in loss from 3% in 1970 to 8% in 1971) the subsequent years showed losses comparable to that of 1971 (9% and 7%, and data for 1974 not contained in the OCR data shows a loss of 9%). In Denver there was a steady growth in loss after the point of greatest reduction in segregation (1969) from 2% to 7%. But in general, there are simply not enough data. What is important to note, however, is that a small but continuing increment in white loss can have a much greater effect than the one-time loss. Thus the estimates of long-term impact of desegreation on pages 74 and 75 may be serious underestimates.

The modified procedures described above lead also to changes in the tabulations for the largest central city districts in Appendix 3 with minor changes for all schools and major changes for the separate elementary and secondary schools. Revised Appendix 3 may be obtained from The Urban Institute upon request.

TEXTUAL REVISIONS

Page 21, line 4:

"As the table shows, elementary schools are more segregated than high schools, in every region except the Southeast where within-district segregation at the two levels is the same."

Page 21, line 11: "... only a fifth (0.20) ..."

Page 34, lines 1-14:

"The answer at first appears to be that the degree of desegregation was greater at the secondary level, for as Table 9 shows, the reduction in degree of segregation in the country as a whole was greater at the secondary than the elementary level.

However, this apparent greater reduction in segregation at the secondary level masks differences among regions. Figures 3 and 4 show the changes from 1968-72 in elementary and secondary schools by region. In the two regions where federal and court actions toward integration were strongest, the Southeast and West South Central and in the Border states, the drop in segregation was greater in high schools than in elementary ones. But in each of the other regions the decrease in segregation was greater in elementary schools. In fact, in three of the northern regions (New England, Middle Atalntic, East North Central), segregation increased among secondary schools from 1968-70, while no region showed an increase in segregation among elementary schools."

Page 46, line 21: Delete "... but the Southeast ..."

Page 48, lines 4-18:

"When we look at changes from 1968 to 1972, there is an increase in every region but Border states at both levels. But the increases vary by region and by level. In all regions, the increase was either the same at both levels or greater at the secondary level.

What appears to occur is this: As suggested by the earlier data, the general movement of whites to areas with few blacks during this period was greater at the secondary level, very likely due to the greater age and affluence of families with children of high school age. The result of that greater movement was to increase the between-district segregation more among secondary school students than among elementary students. Whether the loss of white children when desegregation occurred was greater at secondary than at elementary levels cannot, however, be inferred from these results. That question will be discussed again in a subsequent section."

Page 58, line 14: "Large negative values for Δr ..."

Page 60, line 2 through page 61, line 6:

1. For a city with the average number of students, with no blacks and no reduction in segregation, the expected loss per year is:
   a) Largest 21: (gain of) 0.9% of whites present at beginning of year (average number of students is 169,000)
   b) Next 46: 1.2% of whites present at beginning of year (average number of students is 58,000)
2. Additional expected loss if the city is 50% black:
   a) Largest 21: 6.8% of whites present at beginning of year
   b) Next 46: 4.5% of whites present at beginning of year
3. Additional expected loss if the city experiences a decrease of .2 in the index of segregation in that year:[25]
   a) Largest 21: 5.6% of whites at beginning of year
   b) Next 46: 1.1% of whites at beginning of year
4. Additional expected loss if a city were twice its size:
   a) Largest 21: 0% of whites present at beginning of year
   b) Next 46: 2.9% of whites present at beginning of year

Taking the first three losses together, the expected loss of whites from a city system with 50% blacks would be:

For the largest 21:-

with reduction of .2 in segreation: (-) 0.9% + 6.8% + 5.6% = 11.5%
with no change in segregation: (-) 0.9% + 6.8% = 5.9%

For the next 46:

with reduction of .2 in segregation: 1.2% + 4.5% + 1.1% = 6.8%
with no change in segregation: 1.2% + 4.5% = 5.7%

Page 63, line 11 through page 64, line 7:

"Estimated increase in loss of whites in one year as a function of reduction of .2 in index of segregation:

	South	North
Largest 21	6.8%	4.0%
Next 46	1.9%	*

*No reliable estimate for the North can be made since the correlation between Δr and Δrx South is .983 (i.e., nearly all changes in segregation occured in the South in these 46 cities). See footnote 26 for further discussion.

These results show that indeed there has been a greater loss of whites when desegregation has taken place in large southern cities than when it has taken place in large northern cities, with the esimate nearly twice for the southern cities what it is for northern ones. For the smaller cities, there is a smaller loss for the Southern cities though no effect can be estimated for the North in these smaller cities.

For this analysis with the two additional variables, we can also ask

what differences in loss of whites are associated with a difference between 0 and 50% black in the city schools and a difference between 0 between-district segregation and .4 between-district segregation.

Estimated increase in loss of whites in one year as a function of 50% black in city school district and between-district segregation of .4:

	50% black	Between-district segregation of .4
Largest 21	2.2%	6.6%
Next 46	1.7%	4.4%

Page 65, tabulation in center of page:

Between-district segregation	Largest 21 proportion black			Next 46 proportion black		
	.25	.50	.75	.25	.50	.75
0	2%	10%	17%	3%	6%	9%
.2	9	16	24	8	11	15
.4	15	23	30	14	17	20

Page 66, lines 1 through 3:

"These estimates are for a city in the South. In the North the losses at the time of reduction in segregation are estimated to be 3.6% less in the largest 21 cities with no reliable estimate possible in the next 46."

Page 66, line 22: "and three more equations, . . ."

Page 71, lines 10 through 12:

"The results of the analysis give coefficients for Δr of .262 (.057) for the largest 21 city districts, and .098 (.025) for the smaller cities.[29]"

Page 71, footnote 29: "R^2 in these equations are .65 and .60 respectively."

Pages 77 and 78: Delete section on Elementary and Secondary Schools, which continues through sixth line from bottom on page 78.

Page 79: Delete number 10.

REVISED TABLES AND FIGURES

Revised Table 5. BLACK-WHITE CONTACT AND SCHOOL SEGREGATION IN 1968 BY REGION, FOR ELEMENTARY SCHOOLS AND SECONDARY SCHOOLS

	Proportion		Schoolmates		Black-white segregation	
	white	black	whites for average black	blacks for average white	within district	total
U.S.						
Elementary	.78	.16	.20	.04	.66	.75
Secondary	.81	.15	.25	.05	.59	.69
New England						
Elementary	.92	.06	.42	.03	.42	.55
Secondary	.95	.04	.67	.03	.16	.29
Middle Atlantic						
Elementary	.78	.16	.26	.05	.50	.67
Secondary	.85	.12	.42	.06	.30	.50
Border						
Elementary	.77	.22	.22	.06	.53	.71
Secondary	.81	.19	.31	.07	.41	.62
Southeast						
Elementary	.70	.28	.15	.06	.74	.78
Secondary	.68	.31	.16	.07	.74	.76
West South Central						
Elementary	.77	.16	.15	.03	.73	.80
Secondary	.81	.15	.23	.04	.63	.71
East North Central						
Elementary	.87	.12	.25	.04	.63	.71
Secondary	.88	.12	.35	.05	.50	.60
West North Central						
Elementary	.87	.11	.22	.03	.67	.75
Secondary	.93	.06	.44	.03	.44	.53
Mountain						
Elementary	.79	.03	.29	.01	.57	.64
Secondary	.84	.02	.53	.02	.32	.37
Pacific						
Elementary	.77	.08	.23	.02	.59	.71
Secondary	.80	.07	.30	.03	.50	.62

Page 34: Revised Table 9. Within-district Segregation in 1968, 70, 72 at Elementary and Secondary Levels for the U.S. as a Whole

	1968	1970	1972	1972-68
Elementary	.66	.48	.42	-.24
Secondary	.59	.33	.29	-.30

Page 47: Revised Table 12. Between-district Segregation in 1968 and 1972 in Each Region for Elementary and Secondary Schools

	Elementary			Secondary		
	1968 (1)	1972 (2)	Change (3)	1968 (4)	1972 (5)	Change (6)
United States	.34	.37	+.03	.31	.34	+.03
New England	.28	.34	+.06	.17	.23	+.06
Middle Atlantic	.42	.46	+.04	.33	.41	+.08
Border	.49	.48	-.01	.45	.47	+.02
Southeast	.21	.23	+.02	.20	.22	+.02
West South Central	.34	.38	+.04	.29	.34	+.05
East North Central	.31	.32	+.01	.29	.33	+.04
West North Central	.39	.41	+.02	.27	.35	+.08
Mountain	.19	.20	+.01	.09	.12	+.03
Pacific	.31	.34	+.03	.29	.34	+.05

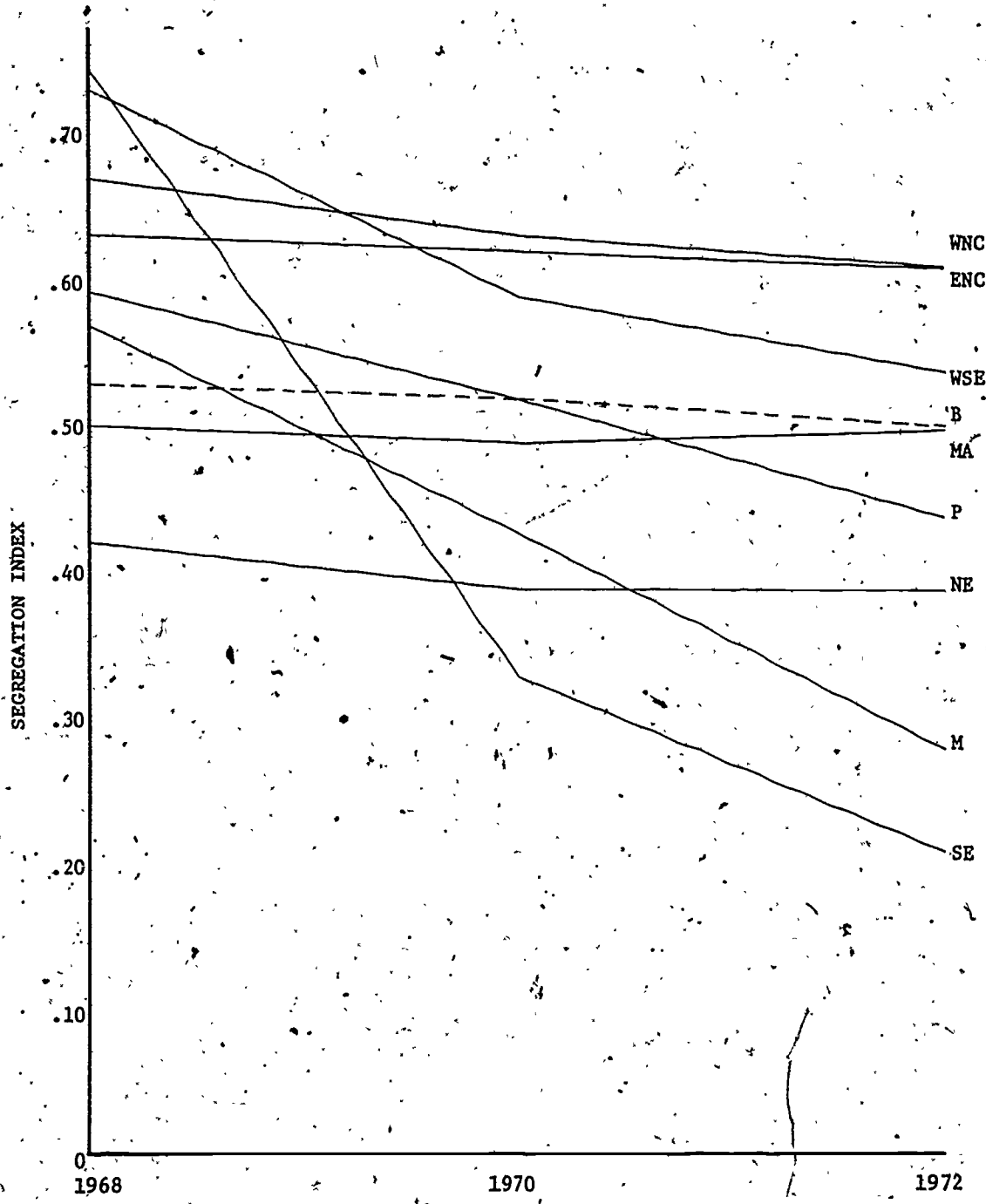

Figure 3 (Revised)

Within-district Elementary School Segregation, by Region

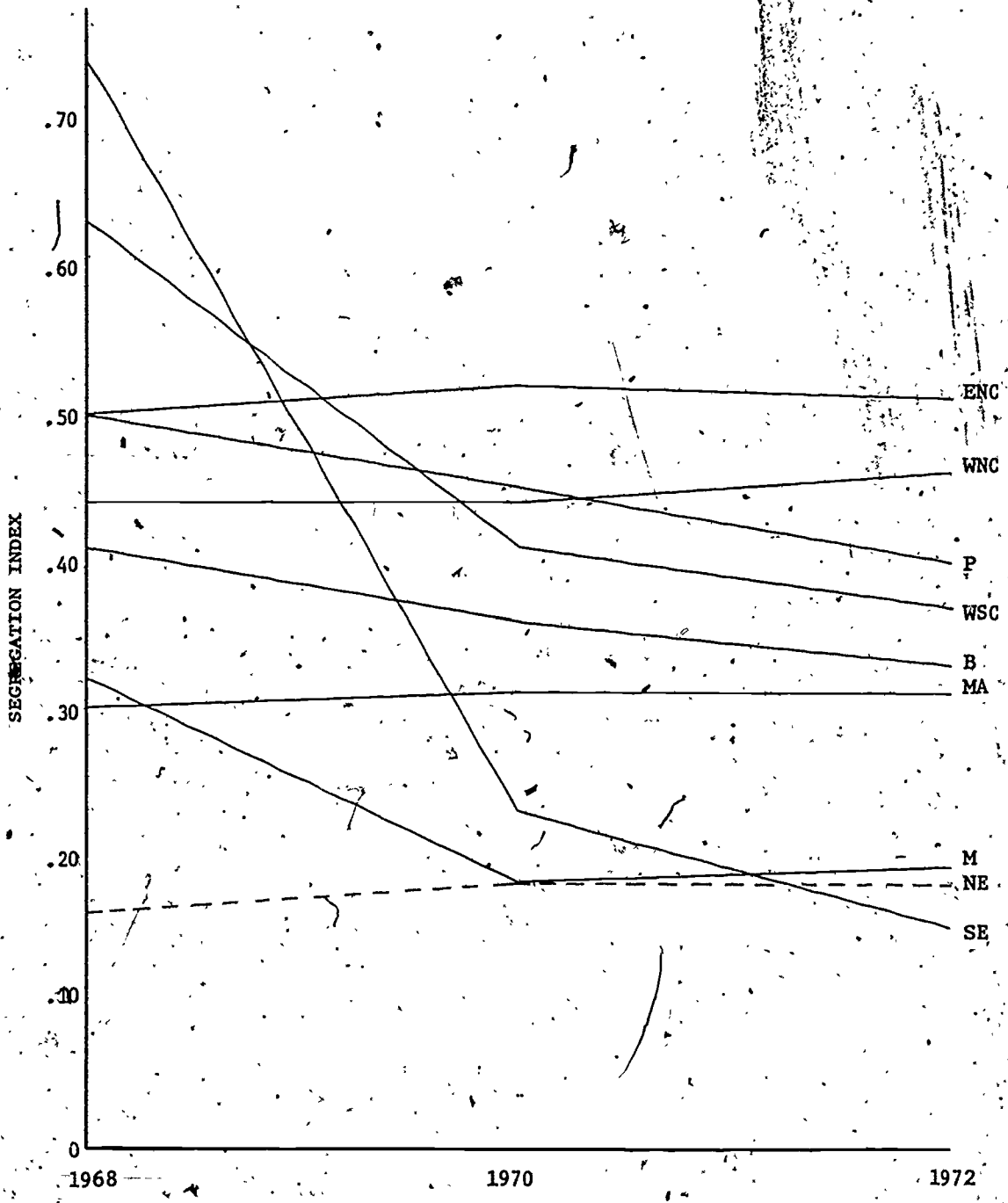

Figure 4 (Revised)

Within-district Secondary School Segregation, by Region

Page 59: Revised Table 14. Regression Coefficients for Analyses of White Student Loss to Central Cities

Equation 1	Largest 21	Next 46
ΔR	.279 (.062)	.056 (.026)
Prop. black	-.133 (.028)	-.090 (.014)
ℓn N	.000 (.008)	-.042 (.010)
Constant	.013	.452
R^2	.29	.26
Number of Observations	(105)	(226)

Including inter-district segregation in SMSA, and interaction of desegregation with South:

Equation 2		
ΔR	.199 (.156)	-.148 (.137)
Prop. black	-.044 (.039)	-.035 (.016)
ℓn N	.066 (.008)	-.041 (.010)
R SMSA	-.165 (.050)	-.110 (.021)
ΔR x S	.143 (.170)	.242 (.137)
Constant	-.059	.438
R^2	.36	.35

Including interactions of desegregation with proportion black and inter-district segregation, and also including South as a dummy variable:

Equation 3		
ΔR	-.459 (.184)	-.349 (.151)
Prop. black	.051 (.037)	-.026 (.019)
ℓn N	.003 (.006)	-.039 (.009)
R SMSA	-.210 (.044)	-.102 (.025)
ΔR x South	.148 (.198)	.244 (.145)
ΔR x Prop. black	1.770 (.307)	.511 (.215)
ΔR x R SMSA	.561 (.494)	.894 (.314)
South	-.006 (.010)	-.002 (.006)
Constant	-.039	.414
R^2	.60	.40

Page 68: Revised Table 15. Further Analysis Results (Equations include proportion black and inter-district segregation)

Large 21

Years of desegregation	ΔR_t	ΔR_{t-1}	ΔR_{t-2}	R^2
69-73	.320 (.060)			.35
70-73	.330 (.069)	.009 (.080)		.35
71-73	.279 (.065)	-.035 (.078)	-.022 (.075)	.43
72-73	.603 (.096)	-.082 (.068)	-.048 (.070)	.71
Next 46				
69-73	.089 (.025)			.34
70-73	.076 (.026)	.034 (.026)		.31
71-73	.102 (.032)	.024 (.025)	-.024 (.027)	.42
72-73	.130 (.050)	.051 (.033)	-.045 (.029)	.40

Estimated added losses of whites due to desegregation in first year of desegregation, in second year, and third year, assuming reduction of .2 in segregation index.*

	First year	Second year	Third year
Large 21	7.7%	0.7% (gain)	0.7% (gain)
Next 46	2.0%	0.7%	0.7% (gain)

*Unweighted averages of above estimates were used because standard errors were nearly alike.

Page 72: Revised Table 17. Estimated Additional Loss of White Students in Specified Cities

(Loss during desegregation in cities which had a Δr in one year of $-.1$, beyond general loss of whites in those cities. Desegregation assumed is $\Delta r = -.2$.)

City	Estimated loss as a percent of white students present at beginning of year	
Houston	(gain)	9.1%
Dallas		7.9%
Memphis		15.6%
Tampa		2.6%
Indianapolis		6.7%
Atlanta		16.7%
Denver	(gain)	4.0%
San Francisco		5.1%
Average		5.2%

NOTE: Professor Reynolds Farley (personal communication 10 September, 1975) has pointed out to us that Houston, Dallas, Memphis, and Denver annexed substantial amounts of territory during the period 1970-73, so that the losses for those cities may be underestimated due to an undetermined number of white children added through annexation. Thus the apparent gains for Houston and Denver may well be due to annexation.

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INTRODUCTION

School desegregation has been a major issue in the United States in the 1960's and 1970's. In 1954, the Supreme Court decision in the Brown case initiated a set of activities which has culminated in the current desegregation efforts in large cities of the North.

"Desegregation" has meant many things during the period since 1954. The term initially referred to elimination of dual school systems, in which one set of attendance zones was used to assign white children to one set of schools, and a second set of attendance zones was used to assign black children to a different set of schools. The classic and plaintive query of the black mother in the South was why should her child be bussed to a school far away, past a nearby school, merely because of the color of his skin. The extent of the change is that the same plaintive query is now heard, primarily from white mothers, primarily in large cities, where bussing has begun to be used, not to segregate children by race, but to integrate them.

This change is reflected in a change in meaning of the term desegregation. From the initial meaning of eliminating a system of dual assignment, the term desegregation has come to mean reduction of any segregation within a system, and in the strongest meaning of the term, elimination of any racial imbalance among schools in the system. Thus desegregation, which initially meant abolition of a legally-imposed segregation, has come to mean, in many cases, affirmative integration.

However, except for one court case (in Detroit) which was later reversed in the Supreme Court, desegregation has not come to mean elimination of racial imbalance between school districts. Nor, except in a few instances, have two or more school systems combined or cooperated to reduce segregation due to residence in different districts. Thus social policy in school desegregation, although changing over time and different in different districts, has almost wholly been confined to desegregation of schools within a school district.

Given the policies that have been applied, by local school systems, by the Department of Health, Education, and Welfare, and by the courts, we can ask a series of questions concerning the actual state of racial integration in schools, and recent trends in that state. For actions taken by one branch of government and at one level of government interact with actions taken by individuals and by other branches and levels of government. The actual state of school integration is a result of this interaction. It is different than it would be in the absence of the policies designed to bring about integration; but it is more than a simple consequence of the policies. Indeed, there are numerous examples of government policy in which the result of the interaction between policy and response is precisely the opposite of the result intended by those who initiated the policy. It is especially important in the case of school desegregation to examine this interaction, because many of the actions taken by individuals, and some of those taken by their local government bodies, have precisely the opposite effect on school desegregation to that intended by federal government policy. The most obvious such individual action, of course, is a move of residence to flee school integration.

To examine the status and trends in school segregation, the primary (and virtually singular) data source are the statistical reports collected by the Department of Health, Education, and Welfare. Beginning in 1968 and continuing to the present, the Office for Civil Rights (OCR) of HEW has obtained from school systems throughout the United States statistics showing the racial composition of each school in the district, the racial composition of teaching staffs, and related information. The data for 1968, 69, 70, 71, 72, and 73 have been processed and are available for analysis. These data allow a detailed statistical analysis of the status and trends in school segregation by race throughout the United States. They are unique in this; and the opportunity they offer is the opportunity to examine what has actually occurred throughout the period 1968-73 during which there have been policies at local, state, and federal levels, in courts, legislatures, executive and administrative branches of government related to school desegregation. Most of these policies have been aimed at bringing about desegregation, though in a few cases, such as anti-bussing actions in Congress, they have been aimed at preventing certain kinds of desegregation.

Not all the questions surrounding school desegregation can be answered by these data, as will be evident in subsequent pages, but some can be, in a more complete way than before.

Of the various policy aims that have been the objects of school desegregation policies, these statistical data can give evidence only on a subset of the aims. And from this subset, we will examine a still smaller subset: the aim of eliminating racial segregation among schools within a system, whatever its source, and the aim of eliminating racial segregation between districts. The data gathered by OCR allow also for the examination of teacher assignment, and thus racial segregation among staff and

between staff and students. However, we will not pursue that examination here.

The data do not allow, on the other hand, for a study of segregation among classes within a school (often known as "tracking"), because there is no good information on pupil assignment to classes within a school. The Office for Civil Rights attempted, in its 1971 questionnaire, to obtain these data from school systems, but abandoned the effort in 1972. A more detailed and intensive mode of data collection is probably necessary if data of sufficient quality on assignment within school are to be obtained.

No implication is attended by the examination to be carried out below that the policy aim of eliminating segregation among schools with a system, whatever its source, is the "correct" one, and other policies which would either go less far (such as eliminating only that school segregation not due to residence) or further (such as eliminating all segregation among classes within a school) are not correct. The question of what is the correct policy depends not only on the implicitly aimed-for social consequences, but upon the realm of legitimate authority of the governmental units applying the policy. This in turn depends on just which individual rights citizens have vested in their government for collective use, through the Constitution and legislative acts. For example, to accomplish the policy aim of eliminating all segregation among schools, whatever its source, the most effective implementation would be federally-specified pupil assignment to schools to create precise racial balance, disregarding school district and state lines. However, such a policy would be using collectively certain rights that individuals have retained to themselves or vested in a more local level of government. As another example,

citizens have vested certain authority in the court, such as constitutional protection, but a wider range of authority in elected legislatures. Thus certain policy aims such as elimination of segregation among schools whatever its source may be appropriate for legislative action if it achieves certain desired consequences, but not appropriate for court action, which must be directed not toward achieving desirable social goals, but insuring constitutional protection for all citizens. It is useful also to point out that data such as these which show the indirect and unintended consequences of school desegregation actions may be relevant for certain desegregation decisions, but not for others. They are relevant for an executive or legislative body which is attempting in its action to achieve a desirable social consequence. They are not relevant for a court decision which is acting to insure equal protection under the 14th Amendment.

Despite the fact that only two aims, student desegregation among schools in a district regardless of the source of segregation, and desegregation between school districts, can be studied, there are a number of important questions that can be answered with these data. In particular, these data show the result of government desegregation actions and individual segregating actions taken together, and allow some assessment of the effects of each. In this way, they suggest the limits of government policy, or at least the limits of policies carried out in the conflict mode that has characterized school desegregation policy.

We will begin by examining the state of racial integration among schools within a district in 1968, and then move to an examination of the changes that occurred over the period 1968-1973. What will be of special interest

is the differential changes that occurred over that period of time in different kinds of school settings: in different regions of the country, in school districts of different sizes, and in particular large cities. For different things were happening in different places during this time, giving rise to very different trends in different places.

For much of the analysis in examining trends, two separate series must be used. The even years, 1968, 1970, 1972, constitute a census of U.S. school districts, covering 90% of the children in school, and excluding only a few very small districts.[1] The odd years include only a sample of school systems, representing those districts in which most minority pupils are found. When examining trends over time in individual districts the odd-numbered years can be safely included, because each district is either included as a whole, or excluded. But for average across the country, across regions, across states, and even metropolitan areas, the odd years cannot be included, and the series must end with 1972.

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[1] See Appendix 1 for OCR sampling plan.

THE MEASURES OF SCHOOL INTEGRATION

A principal consequence of school desegregation that is of major societal interst is the amount of contact between children of different racial groups.[2] Furthermore, most of the attention has been focussed on the amount of contact of "minority" children (principally blacks and Spanish American children[3]) with "majority whites." Much attention both of courts and legislatures has been directed toward elimination of patterns that result in schools which are overwhelmingly or predominantly minority.

For these reasons, a directly relevant statistical measure on a school system is the proportion of white children in the same school with the average black child. This gives a measure of the experience of the "average black child" in that school district with whites. A similar

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[2] A different consequence may be of legal interest: the degree to which segregation resulting from action of any level of government (thus failing to provide equal protection under the 14th Amendment) is eliminated. Still other consequences are of interest to particular groups, and these may depend on the particular way that segregation or integration arises. For example, if either segregation or integration is achieved through assignment of children to schools at some distance because of their race, then the parents affected may feel a greater deprivation of rights than in the case when such assignment does not occur, even if the school's racial composition does not differ. However, a study of the kind carried out here cannot examine these consequences.

[3] The OCR surveys measure enrollments of the following categories: Negroes, American Indian, Oriental, Spanish Surnamed Americans, and Other. White non-minority and undesignated minority groups are included in the category "Other."

measure may be calculated for the proportion of children of each racial group in the school of the average child from each racial group.[4]

This measure is affected not only by the degree of segregation between two groups in different schools in the system, but also by the overall proportion of children in each group. If there are few white children in the system, for example, then whether or not there is the same proportion of whites in each school, the average black child will have a small proportion of white children in his school. Because of this, it is valuable also to have a measure of just how far from an even distribution across the schools the actual distribution is, that is, a measure that is standardized for the number of whites in the system. Such a measure can be constructed, having a value of 0 if there is no segregation between the

[4]The measure of interracial school contact may be constructed as follows: If we number the schools in the system 1, ...k, ...n, and consider the first school, there is a given proportion of whites in this school. Call this p_{1w}. There are a certain number of blacks in the school. Call this n_{1b}. Then for this number of blacks, the proportion of whites in their school is p_{1w}. If we average this proportion over all schools, weighting by the number of blacks, we obtain the desired measure, which we may call s_{bw}, the proportion of white children in the school of the average black child (or more generally, labelling the group i and j for generality):

$$s_{bw} = \frac{\sum_k n_{kb} p_{kw}}{\sum_k n_{kb}} \qquad (1)$$

or for any groups i and j

$$s_{ij} = \frac{\sum_k n_{ki} p_{kj}}{\sum_k n_{ki}} \qquad (2)$$

two groups in question, and a value of 1.0 if segregation is complete.[5]

It is important to note, however, that although the standardized measure is a measure of segregation of children in one group from those of another, it is the unstandardized measure which measures directly the presence of children of a group in schools attended by children of another group. Thus the proportion of white schoolmates for the average black child may be low, as in Washington, D.C., where only 3% of the children are white, without the measure of segregation being especially high.[6]

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[5]The standardized measure of segregation is constructed as follows. If the same proportion of children from group j were in each school, then s_{ij} (see preceding footnote for notation) would be equal to p_j. If the children of group j were all in schools by themselves, totally isolated from children of group i, s_{ij} would be 0. Thus a measure of how far s_{ij} is from p_j is $(p_j - s_{ij})/p_j$. This we will call r_{ij}, which may be thought of as a measure of the degree of segregation, or the degree to which segregation between schools is responsible for the value of s_{ij}. The formula is

$$r_{ij} = \frac{p_j - s_{ij}}{p_j} \qquad (3)$$

[6]For some purposes, it is preferable not to standardize s_{ij} to create a "measure of segregation," r_{ij}, but rather to let s_{ij} be a dependent variable in an analysis, with one of the independent variables the proportion of group j in the system. Using this alternative, we do not begin with a concept of "segregation," but rather with a concept of proportion of the average member of group i's schoolmates that are of group j. The degree to which this is accounted for by the proportion of group j in the system is a measure of the integration of group i with j. In a regression equation, if the coefficient on the proportion of group j is 1, there is no segregation. Insofar as it is below 1, there is.

INTEGRATION IN 1968

In 1968 in the United States, 15% of the children in public schools (grades 1-12) were black, 6% were of another minority, and 79% were majority whites. But the average black child in U.S. schools went to a school which had 74% black children in it, and only 22% white children (and 4% other minorities). Meanwhile, the average majority white child was in a school which was 93% white and only 4% black.

These numbers show that the interracial contact in American schools in 1968 was quite low. Black children had more contact with whites than whites had with blacks, due to the disparity in overall numbers; but the separation was quite marked. Using the standardized measure described earlier, r_{ij}, the segregation between blacks and whites is .72.[7]

Although in the subsequent examination we will focus exclusively on black-white segregation, it is useful to note here the proportion of schoolmates from each of the five racial-ethnic groups for the average child from each group. Table 1 shows this for 1968.[8]

As this table shows, the average white child in the U.S. has far less contact with any minority children than any of the minorities have with children from other groups. Among the minorities, black children have least contact with children from other groups. Construction of standardized measures

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7 Using equation (3), this is calculated as $r_{bw} = \frac{.79 - .22}{.79} = .72$.

8 Using equation (3), standardized measures of segregation may be calculated for each pair of groups, from the tabulation presented.

Table 1. PROPORTION OF SCHOOLMATES FROM EACH GROUP FOR THE AVERAGE CHILD OF EACH GROUP

	Proportion of schoolmates who are:					
For the Average:	American Indian	Negro	Oriental American	Spanish Surname	Majority White	Sum
American Indian	.31	.04	0+	.06	.59	1.00
Negro	0+	.74	0+	.03	.22	.99
Oriental American	0+	.11	.11	.12	.66	1.00
Spanish Surname	0+	.11	.01	.43	.44	.99
Majority White	0+	.04	0+	.03	.93	1.00
Proportion of each group	.0035	.1530	.0047	.0466	.7923	

of segregation from these figures would show that blacks and whites are the most segregated, both from one another and from the other groups.

Within-district segregation

The segregation reflected in the value of .72 for black-white segregation is composed of two parts: segregation among schools within the same school district, and segregation due to blacks and whites living in different school

districts. The average of the within-district segregation, when weighted according to the number of blacks in the districts, is somewhat lower, at .63. However, this figure represents a degree of segregation nearly as large as that for total segregation. (If every district in which blacks lived had the same racial composition, then given this same segregation of .63 within districts, the average black child would have had 29% white schoolmates, rather than 22%. This would have been somewhat more contact, but still not a high amount.[9])

A different picture is evident when we examine the average within-district segregation weighted by the number of whites in the district. This figure is .23. The low number compared to the high .63 for the average weighted by the number of blacks reflects the fact that most whites live in smaller districts with few blacks, while most blacks live in districts with many whites. If segregation in the smaller districts was low in 1968 (as we shall see shortly it was), then the within-district segregation for the average black would be high. Or to put it differently, the segregation within the districts where most blacks live is high, while the segregation within the districts where most whites live is much lower. This reflects also the fact that most whites live in districts different from those in which most blacks live.

We shall use as a measure of the average within-district segregation in the subsequent analysis the average weighted by numbers of black students, since desegregation policy within districts has focussed on the districts with many blacks, and upon the interracial contacts of blacks.

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[9] The value of 29% is calculated by use of equation (3) with $r_{bw} = 6.3$ $p_w = .79$. Thus $.63 = \frac{.79 - s_{bw}}{.79}$, or $s_{bw} = .29$.

Regional Variations

However, the degree of school segregation differed considerably among regions of the country in 1968. Table 2 shows, for the Census geographic regions, the contact of blacks and whites, and the segregation, in each of the regions.[10]

Table 2 shows, comparing columns 1 and 3, the disparity between the proportion white in each region and the proportion white among the average black's schoolmates. Although the proportion white ranges from .69 to .93, in no region except the Outlying states does the average black have a majority of white schoolmates. Only in New England does the proportion approach this. Comparing columns 2 and 4 shows a similar disparity for whites: although the proportion black reaches .29 in one region, in no region does the average white have more tha 7% black schoolmates.

These disparities are shown in column 6, the measure of total segregation. It is greatest in the two southern regions, though not so much greater than several northern regions as might be expected, given historic differences between North and South in school policy. With this relative similarity between total segregation in North and South in 1968, it is somewhat puzzling that when the goals of desegregation shifted from elimination of dual systems to more ambitious ones, attention continued to be concentrated on the South until the early 1970's. The explanation probably lies in the

[10] Several regions have been reclassified, because the character of racial segregation has differed within the region. Hawaii and Alaska have been separated as "outlying" states from the Pacific region; and the South Atlantic and East South Central have been combined and redivided into Border (Delaware, Maryland, West Virginia, Kentucky) and Southeast (all others in these two regions). In all tabulations beyond Table 2, the Outlying states, Hawaii and Alaska, are dropped, because as Table 2 shows, there is no black-white segregation in their schools, and the number of blacks in those states is very small.

Table 2. BLACK-WHITE CONTACT AND SCHOOL SEGREGATION IN 1968 BY REGION

	Proportion		Schoolmates		Black-white segregation	
	1 white	2 black	3 whites for average black	4 blacks for average white	5 within district	6 total
U.S.	.79	.15	.22	.04	.63	.72
New England	.93	.05	.49	.03	.34	.47
Middle Atlantic	.81	.14	.31	.05	.43	.62
Border	.79	.21	.26	.07	.48	.67
Southeast	.69	.29	.16	.07	.75	.77
West South Central	.78	.16	.18	.04	.69	.77
East North Central	.87	.12	.29	.04	.58	.67
West North Central	.90	.09	.27	.03	.61	.70
Mountain	.81	.03	.36	.01	.49	.56
Pacific	.78	.07	.25	.02	.56	.68
Outlying	.87	.03	.83	.03	(-).04	.05

conflict surrounding desegregation: The desegregation movement was part of a larger movement of the 1960's of liberating the southern Negro. Only with the success of that movement did attention turn to the North.

In the measure of within-district segregation (column 5), the two southern regions are more distinct from the northern regions. The southeast shows the classic pattern of southern segregation, with nearly all the segregation occurring within districts, while New England, Middle Atlantic, and Border regions show what has emerged as the northern pattern of segregation--segregation due to blacks and whites attending schools in different districts. In those three regions, the ratio of the within-district segregation to the total segregation is lowest, .69 to .72.

Variation by size of district

The policies of desegregation, as well as the individual responses to it, vary greatly by district size. Desegregation in an urban area is a very different process from that in a small district in a rural area. Thus just as it is important to examine regional variations (because of historical differences and because of the different desegregation policies applied in North and South), it is important to examine variations by district size. Since district boundaries most often coincide with central city boundaries, variations in district size are largely coincident with variation in city size.

Table 3 shows the 1968 interracial contact and segregation by district size. The columns have the same meaning as columns 1-5 of Table 2. (Column 6 is not included here, since "total segregation" has meaning only for a geographic entity, such as SMSA or region.) First, columns 1 and 2 show the sharp racial differences by district size: the smaller the district, the greater the proportion white and smaller the proportion black. One result

Table 3. BLACK-WHITE CONTACT AND SCHOOL SEGREGATION IN 1968 BY DISTRICT SIZE*

	Proportion of all whites in districts of this size	Proportion of all blacks in district of this size	Proportion		Schoolmates		[5]Black-white segregation within district
			1 white	2 black	3 whites for average black	4 blacks for average white	
U.S.	1.0	1.00	.79	.15	.22	.07	.63
District Size							
> 100,000	.09	.35	.52	.38	.12	.09	.71
25-100,000	.16	.23	.73	.20	.22	.06	.66
10-25,000	.20	.14	.83	.11	.30	.04	.54
5-10,000	.20	.13	.86	.11	.28	.04	.59
2.5-5,000	.18	.09	.88	.09	.30	.03	.56
< 2,500	.16	.06	.90	.06	.35	.02	.44

* The size classification for districts was carried out only once, for comparability across years. Sizes are based on 1972 enrollments.

of this is shown in columns 3 and 4: the average black child has an increasing proportion of white schoolmates as district size decreases, and the average white has a decreasing proportion of black schoolmates as district size decreases.

Column 5 shows that given the racial distributions in the districts, the average segregation is greatest within the largest districts, and declines somewhat as district size decreases. Thus not all the increase in the proportion of white schoolmates for the average black child in smaller districts is due to the greater proportion of whites in those districts. Part is due to the lesser segregation in the smaller districts.

Variations in segregation by district size in each region

The differing patterns of segregation in North and South suggest the usefulness of examining segregation in different size districts in each of the regions. Table 4 shows the measure of segregation (column 5 in Tables 2 and 3) in each size class in each region. First, looking at the largest districts, the most striking point is that segregation is high not only in the two southern regions; it is equally high in three of the five northern regions. Only in Middle Atlantic and Border states is the degree of segregation in the largest districts lower.

As district size decreases, however, segregation decreases markedly outside the two Southern regions. In the Southeast, segregation remains almost constant among all size districts, and in the West South Central region, it declines only slightly as district size decreases. Thus in 1968, the difference between South and North in segregation is not at all in the largest cities, but in the smaller cities and towns. A caution should be introduced, however: the measures of segregation do not tell the levels of contact be-

Table 4. AVERAGE WITHIN-DISTRICT SEGREGATION IN 1968 IN EACH REGION ACCORDING TO DISTRICT SIZE

District Size (000)	U.S.	New England	Middle Atlantic	Border	South-east	West South Central	East North Central	West North Central	Mountain	Pacific
>100	.71	---	.53	.59	.84	.79	.79	.82	---	.84
25-100	.66	.48	.54	.46	.77	.74	.61	.64	.56	.45
10-25	.54	.28	.30	.23	.69	.61	.33	.22	.44	.35
5-10	.59	.08	.15	.24	.74	.64	.18	.15	.45	.20
2.5-5	.56	.06	.08	.13	.74	.52	.09	.19	.11	.08
<2.5	.44	.01	.04	.04	.70	.36	.02	.09	.06	.05

tween the two racial groups: as Table 2 showed, the average white child in the Southeast has, despite the higher levels of segregation, a higher proportion of black schoolmates than in any other region, except in the Border states where it is equal. These tables suggest, in fact, that it is the potentially high proportion of black schoolmates, due to a high proportion black in the region or district, that generates high levels of segregation. Table 2 shows a rather strong relation between the proportion black in a region and the total or within district segregation.

Segregation at elementary and secondary levels

In the tabulations up to this point, all students in all schools were included, whatever grade they were in. However, in most localities, schools are divided into different levels, at least into an elementary school and high school, though sometimes into three levels (a 6-3-3 plan, with junior high schools, or a 4-4-4 plan, or a 5-3-4 plan).[11] Elementary schools are characteristically smaller than high schools, having smaller geographic attendance zones, with several elementary schools feeding into a single high school. Because of residential segregation by race, we would expect the attendance zones of elementary schools to be more racially homogeneous, and thus to be more segregated than high schools.

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[11] In recent years, the effort to achieve integration without bussing has led to even finer divisions in some cases, with a school building which once covered the four years of high school, for example, now covering only two years, with twice as large an attendance zone.

Table 5, which is comparable to the first six columns of Table 2, shows the degree of interracial contact and the degree of segregation for the U.S. as a whole and for each region, in elementary and secondary schools. As the table shows, elementary schools are more segregated than high schools, in every region. Only in the Southeast is the segregation at the two levels nearly the same. This reflects the remains of the historical de jure segregation of the South, which segregates beyond the segregation induced by residence, and thus segregates the high schools as fully as elementary.

The difference in segregation at elementary and secondary levels is rather substantial in most regions, and in the U.S. as a whole: the average black elementary school child has only a sixth (0.17) of his schoolmates white, while the average black secondary school child has a quarter (0.25) of his schoolmates white. Whether the greater segregation at the elementary level includes a greater tendency on the part of whites to segregate their elementary school children, beyond that due to small attendance zones, cannot be inferred from these data. However, the examination of trends from 1968-72 in a subsequent section will give some indications of different processes at elementary and

[12] Because of the varying organization of schools into levels, and because of the way data were collected by OCR (the grade levels covered by each school and the numbers of each racial group in each school, but not by grade level) a fixed rule for classifying a schools as "elementary" or "secondary" was required. This was to count every school with a sixth grade as elementary and every school with a tenth grade as secondary. This excluded some schools with less than the first six grades; but to include them along with the sixth-grade schools for which they were feeders would have incorrectly assessed segregation between, say, a grade 1-4 school and a 5-8 school, rather than segregation across all schools serving a given grade level. Some schools in small communities, which cover grades 1-12, are included both as elementary and secondary. uUsing this method, however, we obtain the segregation at two levels in the community, the 6th and 10th grade level.

Table 5. BLACK-WHITE CONTACT AND SCHOOL SEGREGATION IN 1968 BY REGION, FOR ELEMENTARY SCHOOLS AND SECONDARY SCHOOLS

	Proportion		Schoolmates		Black-white segregation	
	1 white	2 black	3 whites for average black	4 blacks for average white	5 within district	6 total
U.S.						
Elementary	.77	.17	.17	.04	.70	.78
Secondary	.81	.15	.25	.05	.61	.70
New England						
Elementary	.92	.06	.43	.03	.40	.53
Secondary	.95	.04	.68	.03	.14	.29
Middle Atlantic						
Elementary	.79	.15	.27	.05	.50	.67
Secondary	.87	.10	.47	.05	.27	.46
Border						
Elementary	.78	.21	.21	.06	.56	.73
Secondary	.85	.15	.39	.07	.35	.54
Southeast						
Elementary	.66	.32	.12	.06	.79	.81
Secondary	.67	.32	.15	.07	.75	.78
West South Central						
Elementary	.76	.18	.14	.03	.76	.82
Secondary	.81	.15	.23	.04	.63	.72
East North Central						
Elementary	.86	.13	.24	.04	.65	.72
Secondary	.90	.10	.41	.04	.43	.55
West North Central						
Elementary	.89	.10	.22	.03	.66	.75
Secondary	.93	.06	.38	.03	.47	.59
Mountain						
Elementary	.80	.03	.28	.01	.59	.66
Secondary	.83	.02	.53	.01	.32	.36
Pacific						
Elementary	.77	.08	.21	.02	.62	.73
Secondary	.84	.05	.36	.02	.44	.57

secondary levels.

Racial contact and segregation in the 22 largest central-city districts

As Tables 3 and 4 show, segregation is most pronounced in the largest school districts, which tend to be located in the largest cities. Table 6, in the same format as columns 1-6 of Table 2, shows for the twenty-two largest central-city districts (1972 enrollment) the proportion of schoolmates of the other race in columns 3 and 4, and the measure of segregation in column 5.[13] The first seventeen of these are in the 100,000+ size category in Tables 3 and 4; the last five are in the 25-100,000 class. In only three cities (Columbus, Boston, and San Diego) did the average black child have more than a quarter of his schoolmates white, and in only six cities (Philadelphia, Detroit, Baltimore, New Orleans, New York, and San Francisco, excluding Washington, D.C., which is an aberrant case, almost racially homogeneous) did the average white child have more than 15% of his schoolmates black. This low degree of contact is reflected by the segregation measures, eight of which are .80 or above, and only three of which are below .60. These figures re-emphasize what Table 4 shows: that segregation in large cities in 1968 was not concentrated in any region of the country, but appeared to a similar degree in all regions.

Altogether, the picture of racial segregation in U.S. schools in 1968 is one with several components:

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[13] These 22 largest central city school districts are classified according to 1972 enrollment and an Office of Education metropolitan status classification. They represent 22 of the 23 largest central city districts; Albuquerque is excluded (the 22nd largest) because it is not among the largest 50 cities in total population.

Table 6: BLACK-WHITE CONTACT AND SCHOOL SEGREGATION IN 1968 FOR 22 LARGEST CENTRAL CITY SCHOOL DISTRICTS (Districts ranked by 1972 Enrollment)-

	Proportion		Schoolmates		Segregation within district
	[1]White	[2]Black	[3]Whites for average black	[4]Blacks for average white	[5]
1. New York	.44	.31	.31	.17	.47
2. Los Angeles	.54	.23	.07	.03	.86
3. Chicago	.38	.53	.05	.08	.86
4. Philadelphia	.39	.59	.14	.21	.64
5. Detroit	.39	.59	.13	.20	.66
6. Houston	.53	.33	.06	.04	.89
7. Baltimore	.35	.65	.10	.19	.71
8. Dallas	.61	.31	.06	.03	.91
9. Cleveland	.42	.56	.06	.09	.85
10. Wash., D.C.	.06	.93	.03	.44	.53
11. Memphis	.46	.54	.04	.04	.92
12. Milwaukee	.73	.24	.18	.06	.75
13. San Diego	.76	.12	.26	.04	.66
14. Columbus	.74	.26	.30	.10	.60
15. Tampa	.74	.19	.16	.04	.78
16. St. Louis	.36	.64	.07	.12	.82
17. New Orleans	.31	.67	.09	.19	.72
18. Indianapolis	.66	.34	.22	.11	.67
19. Boston	.68	.27	.27	.11	.60
20. Atlanta	.38	.62	.06	.09	.85
21. Denver	.66	.14	.20	.04	.69
22. San Francisco	.41	.28	.25	.17	.38

1. High segregation in the largest cities of the country, where the proportions of blacks are greatest;
2. Sharply lower segregation in smaller districts everywhere but the South (and slightly lower there), but much smaller proportions of blacks in these smaller districts -- except in the South;
3. A large contribution to total segregation in some northern regions due to blacks and whites living in different districts, so that the difference in total segregation between North and South is considerably less than their difference in segregation within districts;
4. Greater segregation at elementary than at secondary levels, due at least in part to the smaller, more homogeneous areas served by elementary schools.
5. A seeming paradox: the region with the highest degree of segregation, the Southeast, is also the region in which the average white child had the highest proportion of black schoolmates (.07). The reason, of course, lies in the higher proportion of blacks in the Southeast.

It is clear from these data that by 1968, desegregation of schools was a far from accomplished task in cities and towns of all sizes in the South; but that in the largest cities it was equally high in many places where dual school systems had never existed. But this was the picture in 1968, before the major thrust of desegregation in schools had occurred. The next four years show strong trends toward desegregation. It is these trends to which we now turn.

TRENDS IN WITHIN-SYSTEM SEGREGATION

Between 1968 and 1972, there was a sharp reduction in black-white segregation in the United States. In 1972, 16% of public school children were black, and 77% white. The average black child in 1972 went to a school that was 61% black (compared to 74% in 1968) and 34% white. And the average majority white child was in a school which was 89% white and 7% black. The comparison below shows the change from 1968 to 1972:

	Proportion		Schoolmates		Black-white segregation	
	white	black	whites for average black	blacks for average white	within district	Total
1968	.79	.15	.22	.04	.63	.72
1972	.77	.16	.34	.07	.37	.56

The change from 1968 to 1972 is substantial. Indeed, the average within-district segregation in 1972 between blacks and whites may not be greater than that between some pairs of white ethnic groups. But the change from 1968 to 1972 consists of very different changes in different locales. For reference in making comparisons with Table 2, Table 7 shows the interracial

Table 7. BLACK-WHITE CONTACT AND SCHOOL SEGREGATION IN 1972 BY REGION

	Proportio		Schoolmates		Black-White segregation	
	[1]White	[2]Black	[3]Whites for average black	[4]Blacks for average white	[5]Within district	[6]Total
U.S.	.77	.16	.34	.07	.37	.56
New England	.92	.06	.47	.03	.33	.49
Middle Atlantic	.78	.16	.28	.06	.43	.64
Border	.79	.21	.28	.07	.44	.65
Southeast	.68	.30	.44	.19	.19	.35
West South Central	.76	.17	.28	.06	.48	.63
East North Central	.86	.13	.28	.04	.57	.67
West North Central	.89	.09	.30	.03	.56	.66
Mountain	.80	.03	.52	.02	.25	.35
Pacific	.75	.08	.29	.03	.42	.61

contact and the segregation in each of the regions. But the varying changes can best be seen via a graph. Figure 1 shows the trends in average segregation within school districts (comparable to column 5 of Table 2 and Table 7) in each region over the three points in time, 1968, 1970, and 1972. There is a radical drop in the Southeast, from highest at .75 in 1968 to lowest at .19 in 1972. Among the other regions, there are rather large declines in West South Central, Mountain, and Pacific regions. In New England, Middle Atlantic, and East North Central regions, there has been virtually no change in segregation. These trends show that school desegregation during this period (the period during which most desegregation took place) was almost wholly a southern affair, with the far West being the only exception. This concentration in the South was of course largely the consequence of federal requirements, supported by legal decisions in the courts, aimed at removing segregation where dual school systems had not been eliminated. The graph suggests, however, that the segregation removed was not only that due to dual systems; it was also that due to individual residential location within districts that has led in the North to within-district segregation of .40-.60.

But apart from having occurred primarily in the South and to a lesser extent in the Far West, how did desegregation proceed in districts of different sizes? Figure 2 shows the changes in average within-district segregation in districts of each size over this four-year period. The results are striking: Districts greater than 100,000 in size changed very little; and the amount of change increased steadily as the district size decreased. Among districts 10,000 or below in size, segregation is small indeed, less than .15. The graph shows the very great effectiveness of desegregation policies in the smaller districts (though we have not yet examined the effects

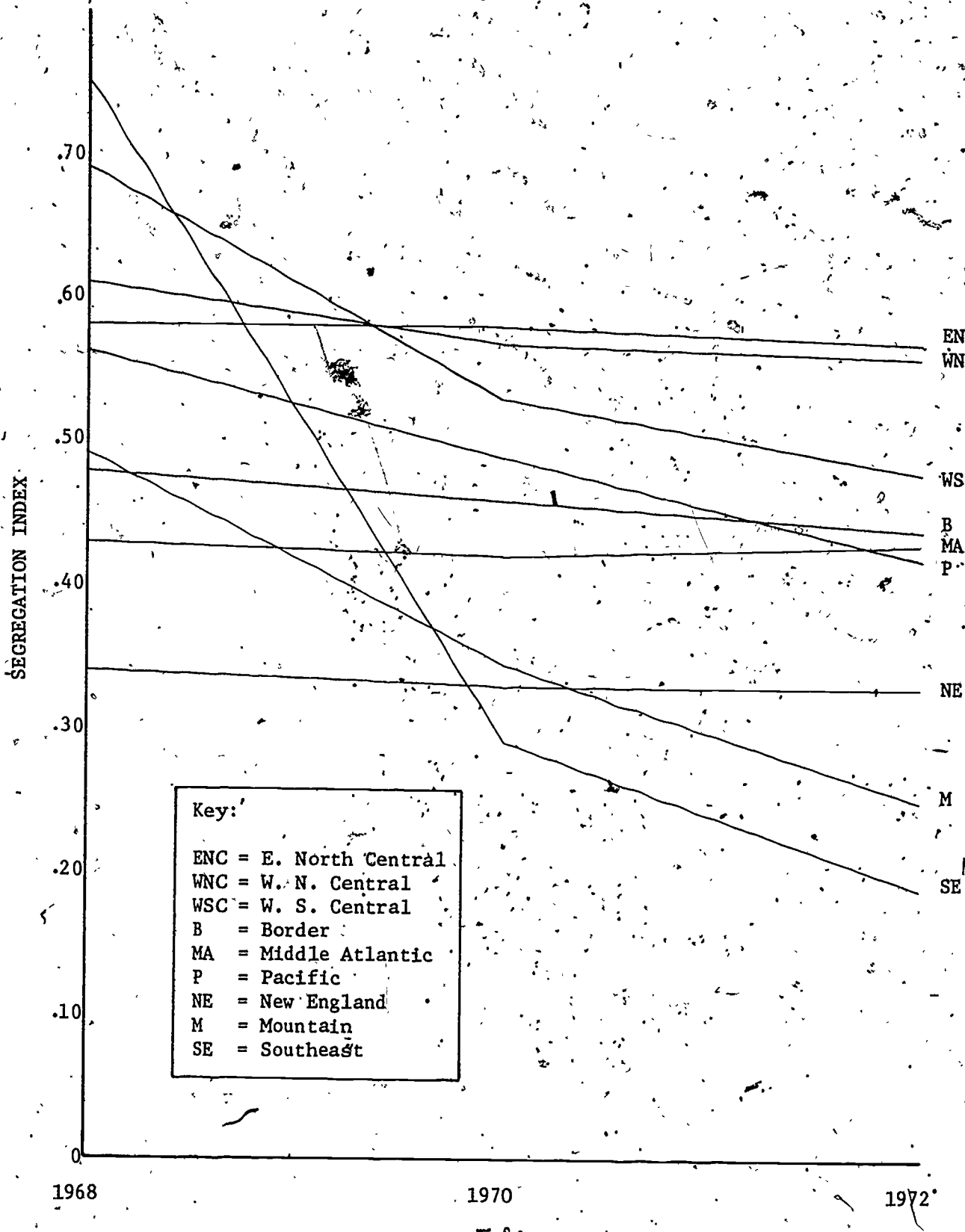

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Figure 1

Average Within District Segregation, 1968-1972, by Region (Alaska and Hawaii omitted)

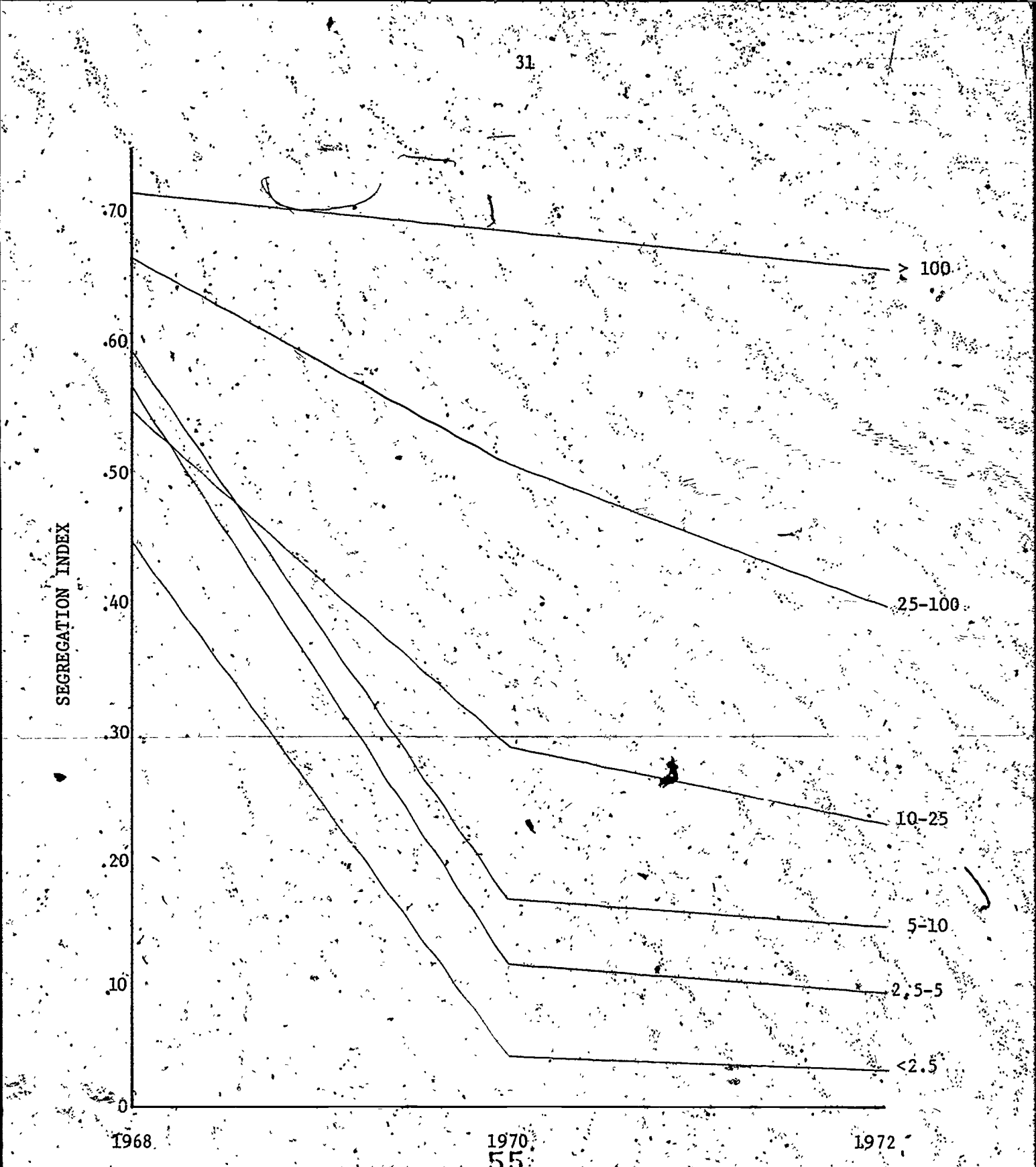

Figure 2

Average Within District Segregation,
1968-1972, by District Size,
(Enrollment in thousands)

on total segregation), and the much lesser effectiveness in the largest districts.

But these differential changes in different sized districts can be somewhat misleading because of the fact that desegregation policy was located primarily in the South, and most of the blacks in smaller districts were located in the South. The trends may be seen by a table (Table 8) for segregation by district size in each region in 1972, for comparison with Table 4 for 1968. The comparison shows that, as suggested by Figure 2, great amounts of desegregation did take place in small districts in those regions where small-district segregation existed: the Southeast and West South Central regions. The comparison shows in addition several points: even outside the South, some desegregation within districts occurred in the smaller districts, though essentially none in the largest districts. The decline in segregation in Mountain, Pacific, and Border states occurred in the medium and medium-large districts, not the largest. And finally, there was a reduction of segregation in the largest districts in one region only, the Southeast. As Table 8 shows, the Southeast shows not only overall the least segregation in 1972, as Figure 1 indicates, but shows lower segregation than most other regions in nearly all size districts. In a four-year period (and primarily in the two-year period 1968-70), school districts of all sizes in the Southeast changed from being the most segregated in the nation to among the least segregated.

Changes in segregation at elementary and secondary levels

Earlier, Table 4 showed that in 1968 the average segregation was less at the secondary level than at the elementary level, in each region of the country. Now we can ask how desegregation proceeded in elementary and secondary schools: whether there was greater desegregation at one level than at

Table 8. AVERAGE WITHIN-DISTRICT SEGREGATION IN 1972 IN EACH REGION ACCORDING TO DISTRICT SIZE

District Size (000)	U.S.	New England	Middle Atlantic	Border	South-east	West South Central	East North Central	West North Central	Mountain	Pacific
>100	.65	--	.55	.55	.44	.76	.79	.84	—	.78
25-100	.39	.56	.53	.43	.28	.47	.60	.59	.25	.25
10-25	.22	.20	.22	.17	.16	.31	.38	.20	.29	.16
5-10	.14	.08	.12	.06	.13	.17	.17	.19	.28	.05
2.5-5	.09	.02	.05	.03	.09	.14	.07	.11	.09	.16
< 2.5	.03	0	.03	.02	.04	.02	.02	.01	.03	.05

the other. The answer at first appears to be that the degree of desegregation was almost identical at the two levels, for as Table 9 shows, the reduction in degree of segregation in the country as a whole was nearly the same.

Table 9. WITHIN-DISTRICT SEGREGATION IN 1968, 70, 72 AT ELEMENTARY AND SECONDARY LEVELS FOR THE U.S. AS A WHOLE

	1968	1970	1972	1972-68
Elementary	.70	.51	.45	-.25
Secondary	.61	.30	.27	-.24

However, this apparent nearly identical reduction in segregation masks two differences which cancel each other. Figures 3 and 4 show the changes from 1968-72 in elementary and secondary schools region by region. In the two regions where federal and court actions toward integration were strongest, the Southeast and West South Central, the drop in segregation was greater in high schools than in elementary ones. But in each of the other regions except the Border region, the decrease in segregation was greater in elementary schools. In fact, in four of the northern regions (New England, Middle Atlantic, East North Central, West North Central), segregation <u>increased</u> among secondary schools from 1968-70, while only the Middle Atlantic region showed an increase in segregation among elementary schools.

This increase in segregation among secondary schools appears likely to be due to segregating movement among white families with high-school age children. One form of movement that would bring about such an increase is movement from an attendance zone serving a school with many blacks to an attendance zone serving a school with fewer blacks, but within the same school system.

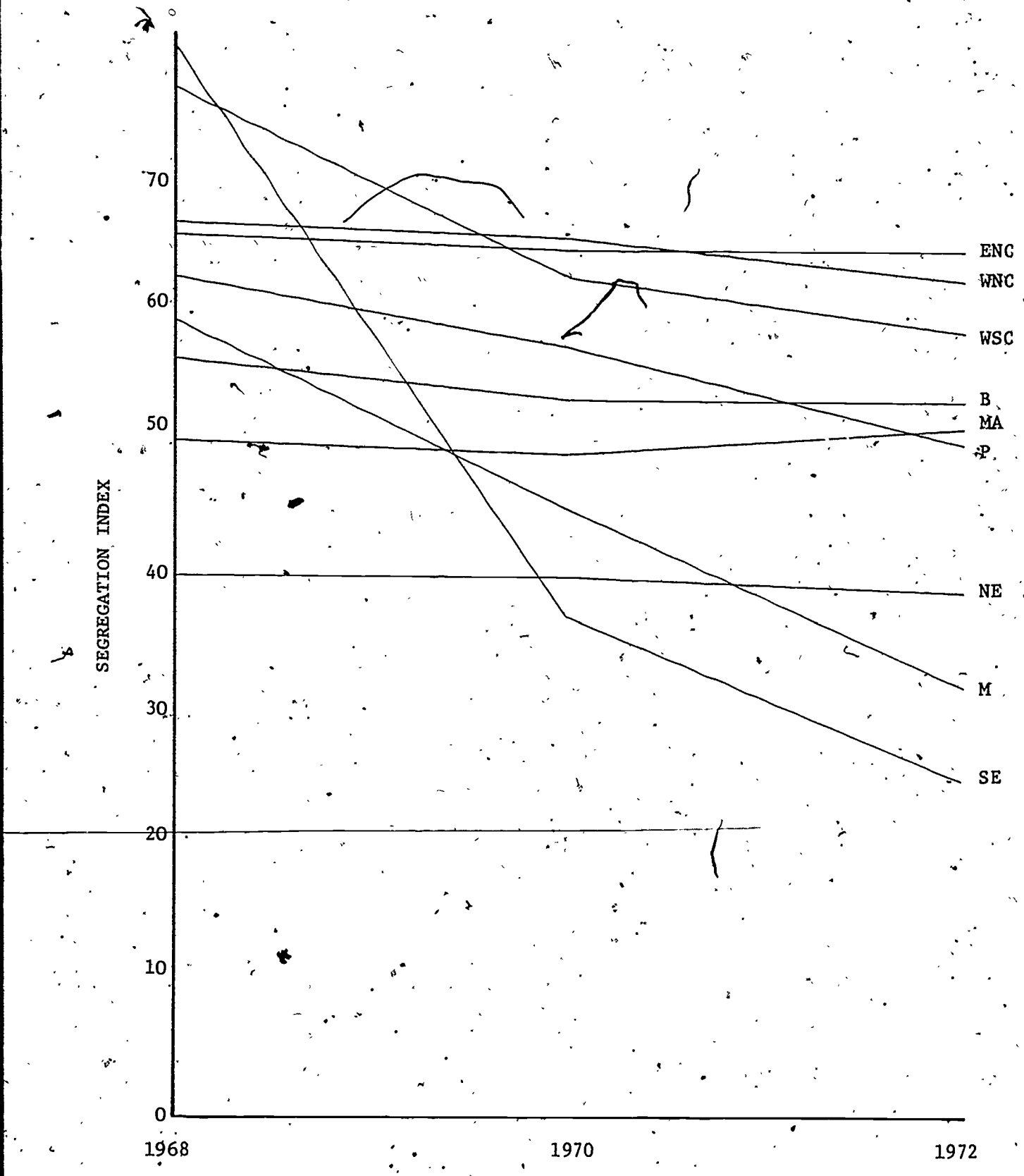

Figure 3

Within-district Elementary School Segregation, by Region

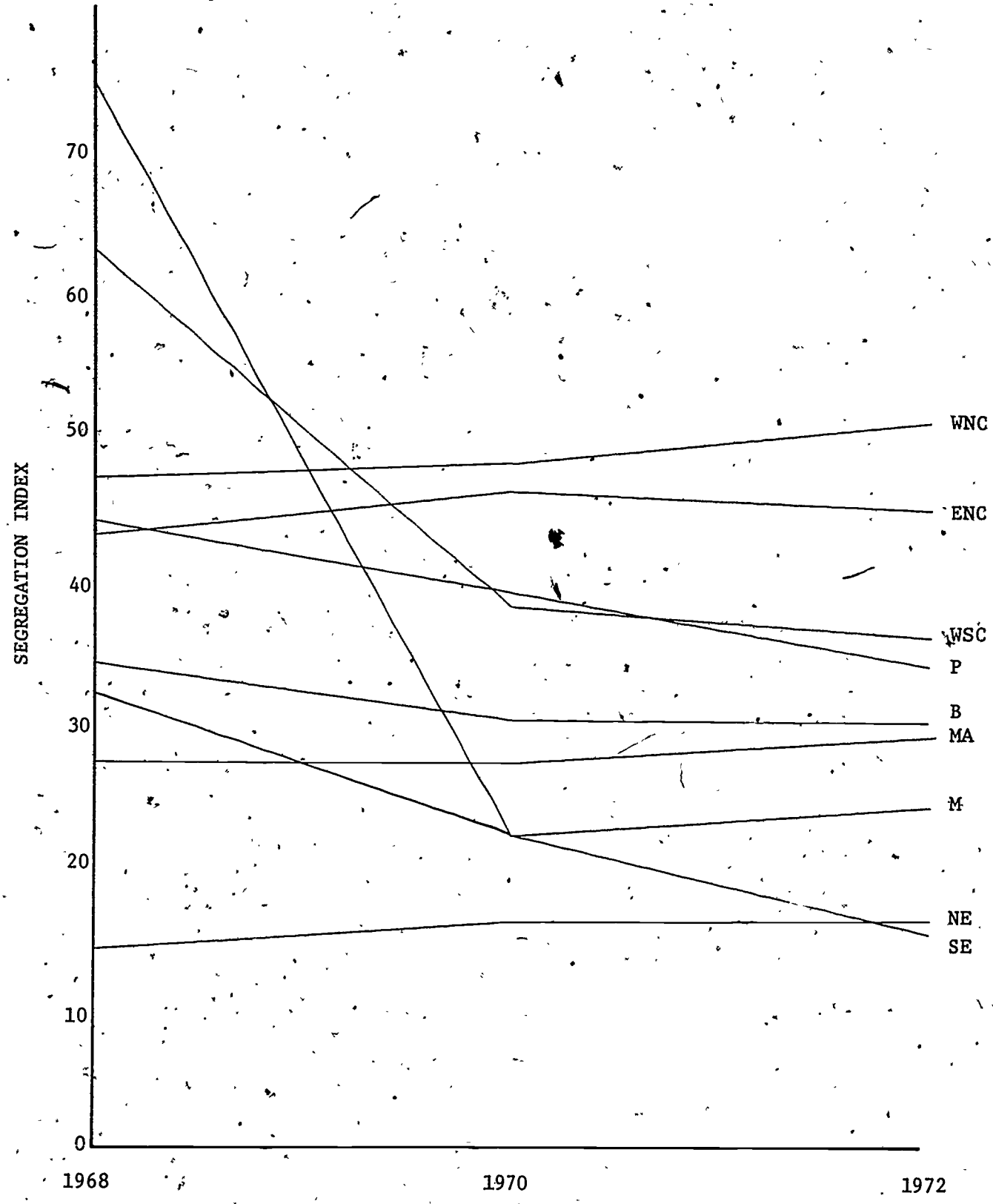

Figure 4

Within-district Secondary School Segregation, by Region

Another, and more likely, is differential movement of families with high school age children out of central city districts with many blacks: greater movement out of the district on the part of white families whose children were in largely white schools.[14]

At this point, these possible explanations must remain conjectures. We will return to elementary and secondary differences in subsequent sections.

Change in 22 largest central-city districts

A final picture of change in within-district segregation is the change in the 22 largest central-city districts. The left side of Table 10 shows the segregation of each in 1968 and 1973, together with the change, in column 3. The table shows the dramatic reduction in some southern cities, joined by Indianapolis among the northern cities, Denver and San Francisco in the West. It shows, however, an increase in five northern cities and one Border city, showing that even during this period of major desegregation, and even within the city boundaries themselves, there were residential movements increasing the segregation in these cities. There are no more northern cities within which segregation was reduced than there are within which segregation increased.

But this does not tell the whole story, even before examining the question of segregation between districts. There have been substantial population shifts in some of these cities, and we can ask the question: given these population shifts, to what extent does the decrease in segregation, where it

[14] The same pattern could be caused by differential movement into schools of different racial composition.

Table 10: BLACK-WHITE SEGREGATION AND CONTACT OF BLACKS WITH WHITES IN 22 LARGEST CENTRAL CITY SCHOOL DISTRICTS, 1968-1973 (Districts ranked by 1972 Enrollment)

	Segregation Measures			Proportion white schoolmates for average black		
	[1]1968	[2]1973	[3]change (1973-1968)	[4]1968	[5]1973	[6]change (1973-1968)
1. New York	.47	.50	+.03	.23	.17	-.06
2. Los Angeles	.86	.79	-.07	.07	.09	+.02
3. Chicago	.86	.88	+.02	.05	.04	-.01
4. Philadelphia	.64	.72	+.08	.14	.10	-.04
5. Detroit	.66	.62	-.04	.13	.11	-.02
6. Houston	.89	.72	-.17	.06	.11	+.05
7. Baltimore	.71	.69	-.02	.10	.09	-.01
8. Dallas	.91	.69	-.22	.06	.15	+.09
9. Cleveland	.85	.87	+.02	.06	.05	-.01
10. Washington, D.C.	.53	.49	-.04	.03	.02	-.01
11. Memphis	.92	.31	-.61	.04	.22	+.18
12. Milwaukee	.75	.73	-.02	.18	.17	-.01
13. San Diego	.66	.53	-.13	.26	.34	+.08
14. Columbus	.60	.56	-.04	.30	.30	0
15. Tampa	.78	.04	-.74	.16	.71	+.55
16. St. Louis	.82	.85	+.03	.07	.05	-.02
17. New Orleans	.72	.57	-.15	.09	.09	0
18. Indianapolis	.67	.39	-.28	.22	.35	+.13
19. Boston	.60	.63	+.03	.27	.21	-.06
20. Atlanta	.85	.48	-.37	.06	.09	+.03
21. Denver	.69	.31	-.38	.20	.39	+.19
22. San Francisco	.38	.07	-.31	.25	.27	+.02

occurred, result in an increase in the proportion of white schoolmates for the average black? The right hand side of Table 10 answers that question by comparing the proportion of white schoolmates for the average black in each of these districts in 1968 with the proportion in 1973. The figures show that although segregation decreased in 16 of the 22 cities, the proportion of white schoolmates for the average black increased only in ten of those sixteen. In four it decreased, and it remained unchanged in two. Thus although segregation was reduced in most of the 22 cities, the contact of the average black with white schoolmates has increased in less than half of them. Only in those cities where desegregation was great did the contact increase substantially--and even in Atlanta, where there was great desegregation, from .85 to .48, the proportion of white schoolmates for the average black child increased only .03, from .06 to .09--because of the great loss in numbers of white school children in Atlanta. (In Atlanta, the white school population in 1973 was only 38% of its size in 1968.)

This last result leads directly to a set of further questions about the larger effects of school desegregation over the 1968-72 or 1968-73 period. The desegregation policies have been confined wholly to within-district desegregation. But as has been evident in earlier examination, there was, especially in the North, substantial segregation due to residence of blacks and whites in different districts - in particular, larger proportions of blacks in large districts and larger proportion of whites in small districts. We can ask, then, what has been the trend, over this period of time, not merely in within-district segregation, as examined so far, but in overall segregation. And we can ask just what has been the change in segregation between districts during this period. Has it increased, as appears likely,

and if so, to what extent? Finally, we can ask just what has been the effect of desegregation within districts on the behavior that increases segregation between districts: the movement of whites from districts with high proportions of blacks and low segregation to districts with smaller proportions of blacks.

The importance of these questions for educational policy lies in the fact that the distribution of children by race in schools is a result not merely of policies by the Federal government, nor of court orders, nor of policies by state and local governments. It is also the result of individuals' decisions about where they will live, and about whether they will send their children to public or nonpublic schools. Increasingly, as incomes increase, more families have these options open to them, though residential options are more restricted for black families due to residential discrimination. Thus the resulting distribution of children among schools is the result of the interaction of the collective decisions by governmental units and the individual family decisions. In areas of economic policy, governments have recognized that final outcomes are not merely the direct result of a policy, and are as concerned with the indirect effects of a policy as with the direct ones. In areas of social policy that are not economic, they usually have not, and have proceeded blindly, as if the policies directly controlled the final outcomes.

School segregation can show well these indirect effects, because the indirect effects have their principal impact on the distribution of whites and blacks among districts, and thus upon segregation between districts, while the direct effects of government policy have been on the distribution of whites and blacks among schools within a district.[15] We have examined the

[15] As suggested in the elementary-secondary comparisons, the indirect effects in the form of residential movement can also have their effects on segregation within districts. The only protion of the indirect effects that the present analysis can measure is that which has its effect on segregation between districts.

direct effects and in the right half of Table 10 taken a glimpse at the indirect effects. We will now turn to examine these indirect effects in more detail.

CHANGES IN TOTAL SEGREGATION AND SEGREGATION BETWEEN DISTRICTS

Figure 6 shows the changes in total segregation in the U.S. as a whole and in each of the regions shown in Figure 1. These changes show roughly the same patterns as the within-district changes in Figure 1, but there are some important differences. First the regions are more tightly bunched in overall segregation in 1968 than in within-district segregation. Secondly, the decreases in overall segregation, among those districts that do show a decrease, are somewhat less than changes in within-district segregation. This reflects the fact that while there were reductions in segregation within districts, due to desegregation policies, there were at the same time increases in segregation between districts, due primarily to the movement of white students to districts with few blacks.

This counterbalancing increase in segregation can be seen more directly by examining the within- and between-district segregation in 1968 and 1972 in each region.[16] As Table 11 shows, the within-district segregation has declined in every region except Middle Atlantic, where it remained constant, while the between-district segregation has increased in every region except Border, where it remained constant. In 1968, the within-district segregation

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16 The between-district segregation is calculated just as in equations (2) and (3), except that the units over which interracial contact is calculated in equation (2) are not schools, but school districts. It should be noted that the total segregation is not the sum of within-district (which is an average over districts, weighted by the proportion black in each district) and between-district segregation. Total segregation over a region is the segregation among schools calculated over the whole region, as if there were no school districts. (It would be the sum of within- and between-district segregation if the average for the former were weighted in a different way.)

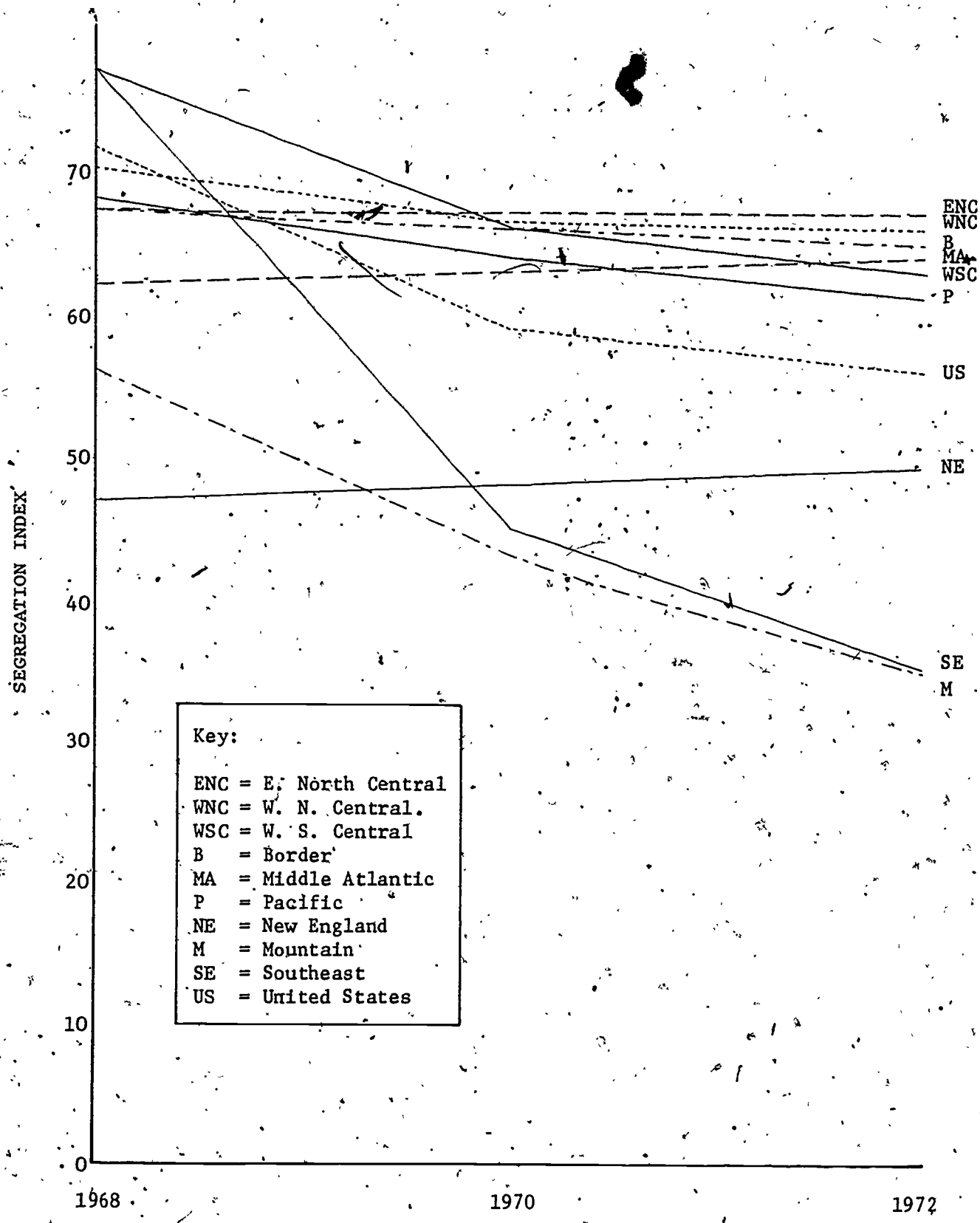

Figure 5

Average Total Segregation, 1968-1972, United States, and by Region (Alaska and Hawaii omitted)

Table 11. CHANGES IN WITHIN-DISTRICT AND BETWEEN-DISTRICT SEGREGATION IN 1968 AND 1972 IN EACH REGION

	Within-district			Between-district		
	1968 (1)	1972 (2)	Change (3)	1968 (4)	1972 (5)	Change (6)
United States	.63	.37	-.26	.32	.35	+.03
New England	.34	.33	-.01	.26	.31	+.05
Middle Atlantic	.43	.43	.00	.39	.44	+.05
Border	.48	.44	-.04	.48	.48	.00
Southeast	.75	.19	-.56	.18	.22	+.04
West South Central	.69	.48	-.21	.32	.37	+.05
East North Central	.58	.57	-.01	.30	.32	+.02
West North Central	.61	.56	-.05	.35	.39	+.04
Mountain	.49	.25	-.24	.15	.17	+.02
Pacific	.56	.42	-.14	.30	.34	+.04

was greater than the between-district segregation in every region; by 1972 the between-district was greater than the within-district in three of the nine regions. Thus the segregation that reflects residential separation into different school districts shows a steady increase throughout the country.

The between-district segregation measures can also be helpful in a further examination of changes at the elementary and secondary levels. Earlier, in Figures 3 and 4, differential changes in segregation were apparent at elementary and secondary levels, with increases in segregation occurring in several regions for secondary schools. These increases were increases in segregation wholly among schools within the same district. A second way of looking at the changes occurring at elementary and secondary levels is to examine changes in the between-district segregation in each region at these two levels. If between-district segregation is greater at the elementary level, it indicates that fewer white and black elementary school children live in the same school districts than is true for secondary school children. If the increase from 1968 to 1972 in between-district segregation is greater at the elementary level, it indicates that over this period the movement of white students out of districts with many blacks was greater at the elementary level than at the secondary level.

The comparisons of elementary and secondary levels in 1968 show that in every region but the Southeast, the between-district segregation was greater at the elementary level than at the secondary level. This indicates that elementary children were more residentially segregated by race throughout the country than secondary children were--a strong indication that the greater within-district segregation found earlier at the elementary level is not due merely to the smaller size and greater neighborhood focus of the elementary school, but is due to a greater tendency to segregate at the elementary level. For

Table 12. BETWEEN-DISTRICT SEGREGATION IN 1968 AND 1972 IN EACH REGION FOR ELEMENTARY AND SECONDARY SCHOOLS

	Elementary			Secondary		
	1968 (1)	1972 (2)	Change (3)	1968 (4)	1972 (5)	Change (6)
United States	.33	.37	+.04	.32	.34	+.02
New England	.27	.30	+.03	.19	.24	+.05
Middle Atlantic	.41	.45	+.04	.30	.40	+.10
Border	.49	.50	+.01	.39	.44	+.05
Southeast	.21	.27	+.06	.22	.24	+.02
West South Central	.32	.38	+.06	.31	.35	+.04
East North Central	.29	.31	+.02	.26	.33	+.07
West North Central	.38	.40	+.02	.33	.41	+.08
Mountain	.19	.23	+.04	.07	.10	+.03
Pacific	.31	.35	+.04	.27	.31	+.04

between-district segregation is not affected by the size of school or the size of its attendance zone, since the district contains both elementary and high schools for those who live within its boundaries.

When we look at changes from 1968 to 1972, there is an increase in every region at both levels. But the increases vary by region and by level. In the three regions where within-district segregation was most reduced, between-district segregation increased more at the elementary level. In the remaining regions, the increase was either the same at both levels or greater at the secondary level.

What appears to occur is this: As suggested by the earlier data, the general movement of whites to areas with few blacks during this period was greater at the secondary level, very likely due to the greater age and affluence of families with children of high school age. But the movement in response to desegregation appears to have been greater at the elementary level, for it is only where desegregation was great that elementary segregation between-districts increased more than secondary. These inferences cannot be strong here; analysis of changes in specific districts in a later section will provide more information about the differential processes at the two levels.

WITHIN- AND BETWEEN-DISTRICT SEGREGATION IN METROPOLITAN AREAS

Another way of seeing what is happening in school segregation in the largest metropolitan areas is to examine trends in the segregation between different school districts in the metropolitan area. Most large cities have a separate school district from that of the surrounding suburbs (although many districts in the South are countywide). And just as there is racial segregation due to blacks and whites attending different schools in the same district, there is racial segregation due to blacks and whites living in different districts. Although the former (within-district segregation) has been reduced in a number of cities, especially in the South, the latter (between-district segregation) has been increasing in each of the metropolitan areas containing the 22 largest central city districts except for Washington, D.C.

Table 13 compares the within-district and between-district segregation in each of the 22 largest central city districts and their metropolitan areas in 1968 and 1972.[17] In addition, the trends in between-district segregation exhibited brom 1968 to 1972 are projected forward to 1976 in a simple linear projection. The data show that already in 1972, the between-district segregation is substantial in many of these metropolitan areas; for example, it is greater than .40 in nine of them. In Washington, D.C. and San Francisco, it

[17] Data are available, as in other tables, for 1973 for these central city districts, but cover only some of the non-central city districts in 1973. Thus 1972 comparisons must be used. Unfortunately, 1974 data, which will soon be available, is on an ever more restricted sample.

Table 13. BLACK-WHITE SEGREGATION AMONG SCHOOLS WITHIN CENTRAL CITIES AND DISTRICTS IN THE METROPOLITAN AREA

	1968		1972		Projected* 1976
	Within	Between	Within	Between	Between
New York	.47	.28	.48	.34	.41
Los Angeles	.86	.26	.80	.28	.31
Chicago	.86	.40	.87	.48	.55
Philadelphia	.64	.39	.70	.44	.48
Detroit	.66	.47	.64	.57	.67
Houston	.89	.15	.74	.26	.37
Baltimore	.71	.38	.69	.42	.46
Dallas	.91	.16	.72	.26	.36
Cleveland	.85	.43	.87	.47	.51
Wash., D.C.	.53	.66	.47	.59	.52
Memphis	.92	.04	.79	.05	.06
Milwaukee	.76	.15	.76	.21	.27
San Diego	.66	.06	.55	.07	.07
Columbus, O.	.60	.12	.58	.14	.16
Tampa	.78	.01	.03	.01	.01
St. Louis	.82	.47	.85	.54	.61
New Orleans	.72	.24	.61	.32	.41
Indianapolis	.67	.19	.57	.25	.31
Boston	.60	.21	.64	.28	.34
Atlanta	.85	.36	.63	.51	.65
Denver	.69	.21	.33	.26	.31
San Francisco	.38	.40	.08	.46	.52

*Projections are simple linear projections, which over small ranges and in the absence of sharp actions, such as large-scale desegregation over the whole metropolitan area, are sufficient for rough projections.

exceeds the segregation within the central city district itself. Furthermore, the projections of these trends to 1976 show that it may be expected to grow substantially in many metropolitan areas. And in two metropolitan areas in addition to Washington and San Francisco--Detroit and Atlanta--it will exceed the within-district segregation of these cities (assuming that the latter does not change).[18] These projections indicate that the segregation of the future in metropolitan areas is as much a matter of segregation between districts as it is a matter of segregation within districts.

The Washington metropolitan area, as the one metropolitan area in which between-district segregation is decreasing, is especially interesting, because it illustrates the kind of process that may be expected to occur in many metropolitan areas as an outgrowth of present patterns of within-district school desegregation, and continuing residential segregation. Washington schools became almost completely racially homogeneous (6% white in 1968, and 3% in 1973), with the between-district segregation of whites and blacks increasing (highest among all these cities in 1968 and 1972), until finally the between-district segregation had nowhere to go but down. This pattern, of course, involves the central city first turning nearly all black before there is reduction of the city-suburb segregation.

All the changes described so far suggest a strong individual response to school desegregation on the part of families, especially where desegregation has been great. Direct evidence, however, lies in the tendency of white families to move when desegregation occurs, either to a district with fewer blacks, or to a district in which there is greater segregation--in either case, keeping the proportion of black schoolmates for its children low. What do the data show about the movement of white children out of the central city districts when desegregation occurs?

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18 Of course, desegregation within Boston in 1974 and in Detroit in 1975 reduces sharply the within-district segregation in those cities.

THE SIZE OF INDIVIDUAL SEGREGATING RESPONSES TO DESEGREGATION

It is clear from the preceding sections that there is a segregating process occurring through individual movement, primarily of white families, from schools and districts in which there is greater integration or a greater proportion of blacks, to schools and districts in which there is less integration or a smaller proportion of blacks. The consequences of this, of course, are to partially nullify the effects of school desegregation as carried out by various governmental or legal agencies.

What is not yet clear is whether desegregation itself induces an increased movement of whites from the desegregated district. This is a difficult but important question to answer, because desegregation in particular school districts is a direct outcome of social policy or legal rulings, and it is important to ask whether there are indirect consequences of desegregation itself which partly nullify it, and if so, what the size of this response is under various circumstances.[19]

[19] There have been several studies of the effect of school segregation on the loss of white children from the desegregating school system. In an attitude survey of parents in eight Florida countywide desegregated school districts, one group of authors (Cataldo et al., 1975) concluded that when the racial composition of schools is less than 30% black, almost no whites leave; but beyond 30% a higher proportion leave. Mercer and Scout in a comprehensive (as yet unpublished) survey of white school population changes in California districts between 1966 and 1973 found no relation between population changes and the amount of desegregation undergone in the district. Charles Clotfelter (1975), in contrast, shows that desegregation in Mississippi had a significant effect on private school enrollment, an effect that increased with increasing proportions of blacks in the schools. Reynolds Farley (1975) used the same OCR data used in our analysis, but only up to 1972. He found no relation of school integration to white population loss for 125 cities with 100,000 or more population and at least 3% blacks, and also for the largest northern and southern cities. His methods differ, however, from our own in several respects, particularly in our year-by-year examination contrasted to his five-year examination.

The question is difficult because casual observation shows that desegregation has evoked differing reactions in different cities, and because desegregation has taken place in very different settings. For example, in many areas of the South, school systems are countywide, encompassing both a city and the surrounding suburbs. Leaving a desegregated system in that setting entails leaving the public school system itself, or a rather distant move (unless adjacent counties have also desegregated, which was a common occurrence in the early 1970's in the South). This, of course, is more difficult than a move to a separate predominantly white suburban school system, which ~~is~~ the common pattern in the North. Another variation is in city size, which creates nearly a qualitative difference in the character of desegregation. For full-scale desegregation in a large city entails mixing student populations that are much more socially distinct and more residentially separated than in small cities.

Additional complications include these:

a. Most desegregation in this period took place in the South, so that except as there was a similar response in those few places in the North that did segregate, the generalization of results to northern cities must remain a question.

b. There was a general loss during this time of whites from central cities, a loss which preliminary analysis indicates is greater as the size of the city is greater, and as the proportion black in the city is greater.

c. The available data show simply the student populations of each race for each of the six years, 1968-73, so that only changes in student populations are directly measured. This is not exactly the same as movement, although something about net movement of a racial group out of the district's

schools can be inferred from these measures of gain or loss.[20]

d. If there is a loss of whites when desegregation occurs, it is not clear what the time progression of this loss is. When does it begin? Does it continue, and accelerate as the proportion white in the schools declines, or is it a one-time response which does not continue once the degree of desegregation is constant? Or does it in fact reverse itself, with whites returning to the district's schools a year or so after they have desegregated? Initial observation of particular cities which have fully desegregated suggests that a loss due to desegregation begins in the same year that desegregation takes place, but its subsequent course is less clear. Using these indications from individual cities, we will first attempt to examine the loss of whites in the same year that desegregation occurs.

These difficulties are not overcome simply, but the data are extensive, showing racial composition of schools over each of the six years 1968-73.[21] The cities to be examined are divided into two groups because of the indications that response to desegregation differs considerably in very large cities from the response in smaller ones: 1) twenty-one of the twenty-three largest

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20 Fertility changes among whites also affect the change in numbers of white children in the schools. Fertility of whites in the years preceding this period was declining, which leads to a general decline in white student populations. This affects the constant term in the regression equations, but not the indicated effects of desegregation, unless the decline in white fertility was by some chance greater in those cities that desegregated. The covariance analyses even controls for that possibility (see p. 71).

21 Schools are not identified each year in a way that makes possible tracing changes in individual schools.

districts in the country classified as central-city districts;[22] 2) forty-six of the next forty-seven largest central-city districts.[23]

These cities are divided into two groups because the response to desegregation appears, as indicated above, different in the largest cities from smaller ones. In analyzing the question of how loss of white students is related to desegregation, we will first examine the loss that is related to reduction in segregation in the same year. The measure of segregation used is the

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[22] Washington, D.C., which has only about 3% white, is excluded because it is already racially homogeneous. Alburquerque, the 22nd largest central-city district, was excluded because the city of Alburquerque is not among the first 50 in population. Size of central-city district corresponds reasonably well to size of city, but there are some discrepancies. This set of districts included 19 of the largest 21 cities in the country by the 1970 census (excluding only San Antonio and Phoenix). In addition, it includes Denver (the 25th largest), Atlanta (the 27th largest), and Tampa (the 50th largest). The latter is a county-wide school district, which accounts for the large district size relative to city size. In preliminary analyses, only the largest 20 central-city districts were included, excluding Denver and San Francisco. However, because Denver and San Francisco were two of the few northern cities to undergo extensive desegregation during the period 1968-73, they have been included.

[23] Richmond, Va., which annexed some suburban districts in the same year it underwent extensive desegregation, was excluded. It was not possible to tell from Richmond the exact size of white loss from the original district, although the loss in years subsequent to the annexation shows that it was substantial. Memphis also had annexation, but its size was affected only slightly, so it was not excluded.

standardized measure r_{ij} presented in earlier sections.[24]

In this analysis, all years are taken together (that is, Δr_{ij} in 68-69 is related to change in whites in 68-69, Δr_{ij} in 69-70 is related to change in whites in 69-70, etc.) in an equation as follows:

$$(4) \qquad \frac{w_t - w_{t-1}}{w_{t-1}} = a + b_1 \Delta r_{t,t-1} + b_2 p_{bt-1} + b_3 \ln N_{t-1}$$

where:

w_t is number of white students in the system in year t

r_t is the standardized measure of segregation in year t

p_{bt-1} is the proportion black in the system in year t-1

N_{t-1} is the number of students in the system in year t-1

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[24] It seems likely that the tendency of white families to leave the system is related not to a change in the "index of segregation," but to a change in the proportion of blacks in their child's school. Thus a change in the unstandardized measure of earlier sections, s_{ij} (the proportion of black children in the average white child's school), should be more directly related to loss of whites than is r_{ij}. However, the unstandardized measure is affected by the number of white children in the system, and thus any analysis including it must relate the change in s_{ij} in the previous year to the loss of whites in a given year. A discussion in Appendix 3, however, indicates how one might use the change in s_{ij} as a determinant of loss of whites in the same year. The relation between the size of a change in s_{ij} and the corresponding change in r_{ij} depends on the proportion black in the system. When it is .5, which is about average for the largest 22 central-city districts, then the change in r_{ij} is twice the change in s_{ij} (since $r_{ij} = (p_j - s_{ij})/p_j$). It is because both the numerator and denominator of the formula for r_{ij} are affected by loss of whites to the system that r_{ij} in a given year is approximately independent of loss of whites in that year.

The analysis is carried out for t = 69, 70, 71, 72, 73. They are taken together to obtain an average effect over the five years, because among the 22 cities, massive desegregation in any one year in one city can distort results for that year. The two additional variables of proportion black in the system and number of students are included because these variables appear to be related to loss of whites from the system independently of the change in segregation.

Note that the independent variable measuring change in segregation $\Delta r_{t,t-1}$, is just that. It is not a measure of a particular form of change in segregation, such as bussing, nor even of a desegregation policy. Change in r can occur through individual movement of black or white students; and certainly the slight upward movement of segregation (as measured by r) in some northern cities is just that. However, these individual movements make only small differences in r over any year. Large negative values for r are due to desegregation policies instituted in that city. Although the term "desegregation" to a civil rights lawyer may mean only the move to full racial balance in all schools, it is important to remember that the desegregation variable used in this analysis refers to a reduction of any size in the index of segregation.

The results of the analysis are presented in Table 14. The table presents the coefficients to the above equation for the largest 21 central-city systems and the next 46, along with standard errors of the coefficients and amount of variance accounted for. To gain some sense of the magnitude of the effects represented by these coefficients, we can express what the expected yearly rates of loss of white students would be in various circumstances. It is important to remember that these are <u>average</u> effects, which

Table 14. REGRESSION COEFFICIENTS FOR ANALYSES OF WHITE STUDENT LOSS TO CENTRAL CITIES

	Largest 21	Next 46
Equation 1		
ΔR	.277(.062)	.091(.031)
Prop. black	-.135(.028)	-.086(.151)
ln N	.001(.001)	-.047(.011)
Constant	.003	.503
R^2	.28	.24
Number of observations	(103)	(239)

Including inter-district segregation in SMSA, and interaction of desegregation with South

Equation 2		
ΔR	.195(.158)	.008(.151)
Prop. black	-.047(.041)	-.033(.019)
ln N	.007(.008)	-.042(.011)
R SMSA	-.162(.052)	-.109(.024)
ΔRxS	.144(.172)	.122(.152)
Constant	-.064	.450
R^2	.35	.29

Including interactions of desegregation with proportion black and inter-district segregation, and also including South as dummy variable

Equation 3		
ΔR	-.460(.187)	-.147(.173)
Proportion black	.050(.037)	-.027(.022)
ln N	.003(.007)	-.041(.011)
R_{SMSA}	-.208(.045)	-.101(.029)
ΔRxSouth	.146(.201)	.108(.165)
ΔRxProp. black	1.774(.313)	.406(.254)
$\Delta R x R_{SMSA}$	.544(.501)	.664(.385)
South	-.006(.010)	-.001(.007)
Constant	-.037	.43337
R^2	.60	.32

differ from city to city, as will become apparent in subsequent analysis.

1. For a city with the average number of students, with no blacks and no reduction in segregation, the expected loss per year is:
   a) Largest 21: (gain of) 0.3% of whites present at beginning of year (average number of students is 169,000)
   b) Next 46: 1.3% of whites present at beginning of year (average number of students is 58,000)
2. Additional expected loss if the city is 50% black:
   a) Largest 21: 6.8% of whites present at beginning of year
   b) Next 46: 4.3% of whites present at beginning of year
3. Additional expected loss if the city experiences a decrease of 20% in the index of segregation in that year:[25]
   a) Largest 21: 5.5% of whites at beginning of year
   b) Next 46: 1.8% of whites at beginning of year
4. Additional expected loss if a city was twice its size:
   a) Largest 21: (gain of) .07% of whites present at beginning of year.
   b) Next 46: 3.3% of whites present at beginning of year

Taking the first three losses together, the expected loss of whites from a city system with 50% blacks would be:

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25 A decrease of .2 in the index of segregation is approximately equal to an increase of 10% in the black schoolmates of the average white in the system if the proportion is .50.

For the largest 21:

with reduction of .2 in segregation: (-) 0.3% + 6.8% + 5.5% = 12.0%

with no change in segregation: (-) 0.3% + 6.8% = 6.5%

For the next 46:

with reduction of .2 in segregation: 1.3% + 4.6% + 1.8% = 7.7%

with no change in segregation: 1.3% + 4.6% = 5.9%

These results suggest that the impact of desegregation is quite large for the largest 21 districts, of the same order of magnitude as other effects; but that for the next 46 cities, the impact is much less, considerably smaller than that due to other factors. (The average loss of whites per year in the largest 21 cities was 5.6% of those present at the beginning of the year, and in the next 46, 3.7%.) It should be remembered also that this is an effect for the year of desegregation only; we do not yet know about subsequent effects.

But how does a decrease of .2 in the segregation index compare to the actual largest declines that occurred in segregation in these cities in any single year? One way to get a sense of this is, as stated earlier, from the fact that in a city with .5 blacks in the schools, an increase of 10% blacks in the average white child's school is equivalent to a decrease of .2 in the segregation measure. To give another sense of the magnitude of a change of .20, the cities among the 21 largest districts are listed below in which a reduction in segregation of .10 or more occurred in any single year, together with the year it occurred:

City	Year	Reduction in segregation
Houston	69–70	.11
Dallas	70–71	.19
Memphis	72–73	.48
Tampa	70–71	.52
Indianapolis	72–73	.18
Atlanta	69–70	.11
	72–73	.15
Denver	68–69	.22
San Francisco	70–71	.16

Eight of the 21 cities underwent a reduction in segregation of .1 or more in any single year, and three a reduction of .2 or more (and seven of them underwent a reduction of .2 or more over the total period 68–73). Among the next 46, 13 underwent a reduction of .2 or more over the whole period, and 10 of these a reduction of .4 or more. Many cities, of course, underwent no desegregation at all, and their segregation indices remained approximately constant, or increased.

A next step which can be taken (or two steps at once) is to attempt to consider two more factors which differ among cities which have experienced desegregation, factors which may affect the rate of loss of whites. One is location in the South or North. This factor we do not expect to affect the general loss of whites, but only their loss when desegregation occurs. Thus we can ask what is the effect of desegregation of .2 for southern cities,

and what is the effect for northern cities? Second, cities differ in the degree to which a suburban alternative is available. Some cities, either because the school district encompasses all or most of the metropolitan area, or because the rest of the metropolitan area is about the same racial composition as the central city, have no such available havens. Thus we can ask how the loss of whites is affected by the racial disparity between city and suburbs, or what we have called in an earlier section, the between-district segregation.

A regression equation which includes these two variables gives results as indicated in Table 14, which allow the following estimates:

Estimated increase in loss of whites in one year as a function of reduction of .2 in index of segregation:

	South	North
Largest 21	6.8%	3.9%
Next 46	2.6%	0.2%

These results show that indeed there has been a greater loss of whites when desegregation has taken place in large southern cities than when it has taken place in large northern cities, with the estimate nearly twice for the southern cities what it is for northern ones. For the smaller cities, there is a similar difference, with essentially no loss estimated for northern cities. A caution must be introduced in these estimates: as the table shows, the coefficients on which the estimates are based are not as large as their standard errors, so that the estimates should be taken as only a best guess. The reason, of course, is that only a small number of cities in both North and South in both samples have experienced high degrees of desegregation. The fact that the results are similar for both sets of cities does, however, provide some additional confirmation.

Estimated increase in loss of whites in on year as a function of 50% black in city school district and between-district segregation of .4:

	50% black	Between-district segregation of .4
Largest 21	2.3%	6.5%
Next 46	1.6%	4.3%

The estimates show that the loss which was earlier seen as resulting from the proportion black in the city can in fact in considerable part be accounted for by the between-district segregation, which is a function of the difference between proportion black in the city and that in the suburbs. Thus the frequent observation that the loss of whites from central-city school systems depends on the existence of suburban systems with high proportions of whites is certainly confirmed by these data. Note, however, that this is a generally greater loss of whites under such conditions, not related to the period of desegregation. The question of whether there is additional loss at the time of desegregation can be answered by a further analysis, to which we now turn.

In this analysis, we include not only the possibilities that have already been examined, but three others as well:

a) The possibility that there is a generally different loss rate of whites from central cities in the South than in the North, in the absence of desegregation

b) the possibility that desegregation produces different rates of loss when the proportion black in the city differs (interaction between proportion black and change in segregation)

c) the possibility that desegregation produces different rates of loss when the inter-district segregation differs

The estimates of these effects can best be expressed as the total estimated

loss rates under different illustrative conditions.[26] We will consider what the loss rates would be for the average-size district in the South for each group of cities where the reduction in segregation is .2, as in earlier illustrations. Estimates are given for various combinations of proportion black in the central-city district, ranging from .25 to .75 and between district segregation ranging from 0 to .4.

The tabulation below shows the estimated loss rates under these various illustrative conditions.

Between-district segregation	Largest 21, proportion black			Next 46, proportion black		
	.25	.50	.75	.25	.50	.75
0	2%	10%	17%	1%	2%	3%
.2	8	16	24	5	7	8
.4	15	22	30	10	11	13

26 The individual coefficients from Table 14 if interpreted alone without combining both the interaction terms and the main effects are not meaningful. Thus the negative sign on the coefficient for Δ r is not itself interpretable, without the compensating positive coefficient of Δ rx proportion black. Even so, particular combinations of values for the variables would show results that would seem unlikely on their face (for example, integration at very low proportions black apparently bringing about a small gain in proportion of whites in city schools, rather than a loss, or increased proportion black apparently bringing about a small gain as well). This is probably due to misspecification of the equation--for example, some nonlinearity in effect of proportion black, not allowed by the equation as specified, or to a tendency of two highly correlated variables to have coefficients that polarize, due to minor sampling fluctuations. (See "Instabilities of Regression Estimates Relating Air Pollution to Mortality," Gary C. McDonald and Richard C. Schwing, Technometrics, Vol.15, No.3, Aug. 1973.) Finally, there is the fact that some coefficients would give meaningless values of rate of loss (e.g., over 100%) for extreme values of the independent variables (e.g., Δ r = 1 and proportion black = 1.0). This is due to a deliberate misspecification of the equation. The appropriate dependent variable would have been logarithm of (whites in year t/whites in year t-1), rather than (whites in t - whites in t-1)/(whites in t-1). The latter was used because it gives almost the same results as the former, and the coefficients are more directly expressible as additions to a given rate of loss.

These estimates are for a city in the South. In the North the losses at the time of reduction in segregation are estimated to be 3.5% less in the largest 21 cities and 2.3% less in the next 46. However, it should be recalled that more desegregation took place in the South, so that the estimates are less reliable for northern cities. It should also be noted that some combinations of proportion black and between-district segregation are impossible or quite unlikely, such as .25 proportion black and .4 between-district segregation, or .75 black and 0 between-district segregation.

The most striking from these illustrative estimates are two effects. One is the large increase in the effect of desegregation on rate of white loss as the proportion black in the district increases. This effect exists in both size cities, though it is more pronounced in the largest 21. There is a similarly large increase in the effect of desegregation on white loss if there are suburban alternatives, as measured by a high value for between-district segregation. In this case, the estimated augmentation effect is high both for the smaller cities and for the large ones.

The analysis above does not, however, answer certain other questions, such as the losses of whites in subsequent years. To examine this question, we can slightly modify equation (4), and examine the loss in a given year as a function of the desegregation not only in that year, but in preceding years:

$$\frac{W_t - W_{t-1}}{W_t} = a + b_{11}\,\Delta r_{t,t-1} + b_{12}\,\Delta r_{t-1,t-2} + b_2\,p_b + b_3\,\ln N \qquad (5)$$

and two more equations, including respectively $b_{13}\,\Delta r_{t-2,t-3}$, $b_{13}\,\Delta r_{t-2,t-3} + b_{14}\,\Delta r_{t-3,t-4}$, and $b_{13}\,\Delta r_{t-2,t-3} + b_{14}\,\Delta r_{t-3,t-4} + b_{15}\,\Delta r_{t-4,t-5}$. The last of the equations, which examines effects of desegregation over the preceding five years, is the most complete, but gives the least accurate estimates, since it is based only on the loss in 72-73, and includes only

21 observations. Thus, only the first four equations will be used and only the first three coefficients, for which there are multiple estimates, will be calculated by averaging over the equations. These results will give an indication of the time pattern of white loss following desegregation.[27] The indication must be preliminary, because asking as detailed a question as this of data which consist of a limited number of desegregation experiences, some of which occurred only in 71-72 or 72-73, cannot provide a conclusive answer. Nevertheless, it is useful to attempt to obtain even a preliminary answer to the question. Table 15 shows for successively greater numbers of terms, up to three, the estimates for coefficients. When these coefficients are averaged as described earlier to attempt to estimate the succeeding effects of integration, the results are not very satisfactory, nor even highly consistent, except for the first term (the year in which integration took place). The second year shows essentially no effect while the third year shows an improbably large positive effect.[28] Thus, this attempt must be regarded as unsuccessful for statistical reasons (probably the particular years of desegregation associated with estimates for particular lags). The most that can be said is that there is no evidence for a return to city schools in

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[27] The possible indirect accelerating effects of desegregation on white loss through its effect on increasing the proportion black (p_b in equation (5)) is not reflected in the coefficients b_{11} through b_{15}. That effect can be calculated to determine, for example, the effect in year 2 through $\Delta r_{t,t-1}$ in Δp_b and then the product $b_2 \Delta p_b$.

[28] One reason for suspecting estimates of Δr_{t-2} is that they are heavily dependent on changes in segregation that took place in 1971-72, and among the 21 cities, there were no large changes during that year.

Table 15. FURTHER ANALYSIS RESULTS

(Equations include proportion black and inter-district segregation)

Large 21 Years of desegregation	ΔR_t	ΔR_{t-1}	ΔR_{t-2}	R^2
69-73	.317(.061)			.35
70-73	.325(.070)	.008(.082)		.36
71-73	.252(.059)	-.206(.138)	.774(.196)	.56
72-73	.561(.081)	-.166(.133)	.772(.190)	.81
Next 46				
69-73	.127(.032)			.29
70-73	.111(.034)	.041(.034)		.25
71-73	.106(.033)	.032(.051)	-.011(.038)	.41
72-73	.131(.052)	-.023(.062)	-.027(.047)	.36

Estimated added losses of whites due to desegregation in first year of desegregation, in second year, and third year, assuming reduction of .2 in segregation index.*

	First year	Second year	Third year
Large 21	7.3%	1.8%(gain)	15.4%
Next 46	2.4%	0.6%	0.4(gain)

*Unweighted averages of above estimates were used because standard errors were nearly alike.

the second or third year after desegregation nor any strong evidence for a delayed loss in the second and third years after desegregation. (There is, however, an indirect effect in subsequent years through the increase in proportion black that occurs during the first year.)

There is another more stringent test of segregating effects of school desegregation than those we have examined so far. Each city, with its own particular housing patterns, suburban configurations, crime levels, distribution of racial prejudices, industrial growth or decline, and other factors, has rates of white loss that are specific to it. A rough test of this sort can be carried out for the largest cities by using the white student loss that occurred in each city in 1968-69, before much desegregation occurred in any of these cities (except for Denver), and observing what occurred from 1969 to 1973. For the twelve districts of the 22 which did not experience a reduction of at least 0.1 in segregation over the period 1968-1973 (and on the average experienced no change at all), loss of white students expected between 1969 and 1973, based on their 1968-69 losses, was 17% of the white students present in 1969. The actual loss during this period was 20%, only slightly greater than expected. For the ten districts which did experience desegregation of 0.1 or more, their expected loss between 1969 and 1973, based on the 1968-69 before desegregation losses, was only 10%. But their actual 1969-73 losses averaged 26% of the white students present in 1969. Table 16 shows these figures for each city separately.

A more careful statistical examination of this sort may be made by introducing into the regression equation a dummy variable for each city. Since in equation (4) there are five observations for each city, the degrees of freedom in the equation are $5n - n - 3$.

Table 16. REDUCTION IN SEGREGATION 1968-1973, EXPECTED AND ACTUAL LOSS OF WHITE STUDENTS 1969-1973, 22 LARGEST CENTRAL CITY DISTRICTS

District	Reduction in Segregation	Proportion of Whites Present in 1969 Lost by 1973	
		Expected (based on city's 1968-69 loss[1])	Actual
1. New York	(+) .03	.11	.16
2. Los Angeles	.07	.15	.20
3. Chicago	(+) .02	.16	.25
4. Philadelphia	(+) .08	.13	.13
5. Detroit	.04	.33	.30
6. Houston*	.17	.19	.29
7. Baltimore	.02	.10	.16
8. Dallas*	.22	.05	.25
9. Cleveland	(+) .02	.21	.12
10. Washington	.04	.36	.42
11. Memphis*	.61	(+) .10	.37
12. Milwaukee	.02	.07	.16
13. San Diego*	.13	.01	.08
14. Columbus, Ohio	.04	.07	.12
15. Tampa*	.74	(+) .09	(+) .11
16. St. Louis	(+) .03	.17	.25
17. New Orleans*	.15	.14	.38
18. Indianapolis*	.28	.10	.24
19. Boston	(+) .03	.11	.15
20. Atlanta*	.37	.26	.59
21. Denver*	.38	.09	.20
22. San Francisco*	.31	.39	.33
*Average for 10 cities which had 0.1 or more reduction in segregation.		.10	.26
Average for 12 cities which had less than 0.1 reduction in segregation.		.17	.20

[1] Expected loss equals $1 - (1-x)^4$, where x equals the proportion white students lost in 1968-69.

This analysis makes a somewhat different comparison than the previous ones. In those analyses, districts which have desegregated are compared with those that have not, to discover the effect of desegregation on loss of white students to the system. In this analysis, by contrast, we compare districts that have desegregated with their own expected rates of loss in the absence of desegregation, to discover any additional loss of whites due to desegregation. This is obviously a much more stringent test because it controls for the general characteristics of each city. The equations used in the analysis include proportion black, logarithm of number of students, and between-district segregation, with the addition of a dummy variable for each city. The results of the analysis give coefficients for Δr of .258 (.058) for the largest 21 city districts, and .143 (.034) for the smaller cities.[29] These coefficients correspond closely to those found in earlier equations, indicating that the estimate of the average additional loss rate during desegregation is a stable one, and not due to uncontrolled characteristics of the cities.

Finally, it is possible to carry out a full analysis of covariance, in which we can not only control for the characteristics of the individual cities, but also estimate the loss rate under desegregation for each city which underwent substantial desegregation.[30] These estimates are probably as close as we can obtain to the actual effects of desegregation on white loss in the year of desegregation. They show that the estimated white loss does vary

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29 R^2 in these equations are .64 and .55 respectively.

30 This analysis is carried out by an equation with Δr (change in segregation), dummy variables for each city, and interactions between the city dummy variable and Δr. The coefficient for each city is the same as the sum of the coefficients for Δr and the interaction term.

considerably from city to city, and that the average loss rate specified earlier obscures very different loss rates in different cities. Table 17 shows the estimated loss rate in the year of desegregation if Δr were .2, for all cities listed earlier which underwent desegregation of .1 or more in a single year. These rates must still be regarded as only estimates because there are other things varying concurrently with desegregation. For three of these, proportion black, between-district segregation, and size of district, the equation has controlled the general effects; but the specific effects of each of these variables (as well as others) may differ from city to city. Nevertheless, these figures do indicate where the losses due to segregation are especially great, and where they are small.

Table 17. ESTIMATED ADDITIONAL LOSS OF WHITE STUDENTS IN SPECIFIED CITIES

(Loss during desegregation in cities which had a Δr in one year of -.1, beyond general loss of whites in those cities. Desegregation assumed is $\Delta r = -.2$.)

City	Estimated loss as a percent of white students present at beginning of year
Houston	(gain) 0.9%
Dallas	2.5%
Memphis	13.5%
Tampa	2.3%
Indianapolis	5.5%
Atlanta	11.0%
Denver	(gain) 2.3%
San Francisco	4.3%
Average	4.5%

Now that we have some sense of the magnitude of the losses of whites in the year in which desegregation occurs, and how that magnitude varies among different cities, it is useful to ask just how much difference this makes in the long run in the city's population composition. For insofar as we can determine, the effect of desegregation is a one-time effect. The present data give no good evidence that there is a continuing increased loss of whites from city schools after desegration has taken place. On the other hand, there are secondary impacts of the initial loss: it increases the proportion of blacks in the schools, which itself increases the rate of loss. And it increases the racial disparity between suburbs and city, also increasing the rate of loss. Yet these are second-order effects and their overall impact is not clear.

One way of gaining a sense of the difference that sharp desegregation makes in the racial composition of a city in subsequent years is to consider a hypothetical city with particular characteristics, and apply the coefficients of the equations to the changing population composition of the city, year by year, under two conditions: with sharp desegregation in the first year, and without any change in segregation.

We will do this with two of the equations for the large cities: the simple equation including only Δr, proportion black, and logarithm of student population (Equation 1 in Table 14); and the most complex equation, including three interaction terms (Equation 3 in Table 14).

Assumed characteristics of the district in year 0:

1. Proportion black = 0.50
2. Proportion white = 0.50
3. Average size student body for the largest 21 (169,000)

*4. Suburban ring equal in size to central city, and all white (this means that initial between district segregation for SMSA is .33).

*5. Located in North.

*6. No overall change in student populations in SMSA; white losses from central city appear in suburbs.

*7. No movement of blacks to suburbs.

(Starred items are relevant only to Equation 3 in Table 14.)

The population compositions of the cities will be projected under two assumptions: first, that there is no change in segregation ($\Delta r = 0$); and second, that in year 0, there is a drop of .4 in r. This would not be total desegregation in most large cities, (see, for example, Table 13) but it would reduce the segregation by about half, and in some cases more, and be very substantial desegregation.

Equation 1, including only Δr, proportion black, and logarithm of size, certainly does not include all the ways in which desegregation can have an impact on white student loss. On the other hand, Equation 3 may overstate the initial loss upon desegregation through the magnitude of the interaction terms and may understate the losses after desegregation. The two equations show, however, something about the range of effects that might be expected for a city with these characteristics.

PREDICTED PORTION BLACK IN YEAR

Year:	0	1	2	3	4	5	6	7	8	9	10
Equation 1											
with desegregation (.4)	.5	.54	.56	.58	.60	.61	.63	.65	.67	.69	.70
without desegregation	.5	.51	.53	.55	.56	.58	.60	.61	.63	.65	.67
Equation 3											
with desegregation (.4)	.5	.58	.60	.62	.63	.65	.67	.69	.71	.73	.75
without desegregation	.5	.51	.52	.54	.55	.56	.58	.59	.61	.63	.65

We should emphasize that these projections are not intended as predictions for any city. They are intended rather to give a better perspective on what these equations imply for the impact of desegregation on the city's population composition.

The equations give considerably different projections, but perhaps the most important point is that the impact of desegregation, as a one-time impact, matters less in the overall population composition of the central city than does the continuing loss of whites with or without desegregation. According to Equation 3 from Table 14, there would be a 10% difference in the proportion black in the city at the end of ten years due to desegregation; but even without desegregation, the proportion would have increased from .5 to .65. And according to Equation 1 from Table 14, the difference due to desegregation would be only 3% at the end of the 10 years, but with about the same general increase in proportion black.

It is useful also to see the projected proportion of white schoolmates for the average black child under these conditions, and the proportion of black schoolmates for the average white in the metropolitan area. These are given below, assuming an initial segregation of .8, reduced to .4 under desegregation.

	White schoolmates for average black		Black schoolmates for average white	
	Year 0	Year 10	Year 0	Year 10
Equation 1				
with desegregation	.30	.18	.15	.09
without desegregation	.10	.07	.05	.03
Equation 3				
with desegregation	.30	.15	.15	.08
without desegregation	.10	.07	.05	.04

These projections show that under all conditions, there is an extensive decline in interracial contact over the ten years. The interracial contact under desegregation is projected to remain higher after 10 years than it was in year 0 under no desegregation; but the projected erosion is great, and especially so under desegregation. Most of the intended benefits of desegregation will have been lost at the end of 10 years--in part to the loss of white students upon desegregation, but due even more to the general loss of white students from city schools, with or without desegregation. Nothing here can be said, of course, about the quality of interracial contact in the two situations.

It is important again to emphasize that these are projections for a hypothetical city with the given characteristics; as is evident in the earlier analysis, the estimated impact of changes in segregation differs from city to city, and in some cities is estimated to be absent.

Altogether, these projections emphasize what data from earlier projections have shown: that the emerging patterns of segregation are those between large cities which are becoming increasingly black, and everywhere else, which is becoming increasingly white. Desegregation in central cities hastens this process of residential segregation but not by a great deal under the conditions specified in the example. It provides a temporary, but fast eroding, increase in interracial contact among children within the central city. In districts with certain characteristics, however, (such as about 75% black and about .4 between-district segregation, as in Detroit, Baltimore, Philadelphia, or Chicago), the impact of full-scale desegregation would be, according to the estimates from page 65,

very large, moving the city's schools to nearly all black in a single year. What would happen in a particular city is unknown; the point here is that the white loss depends very much on the extent of desegregation, the proportion black in the central city and the black-white differential between central city and suburb.

Elementary and Secondary Schools

One final question is useful to examine before ending this quest for the effects of desegregation within large central cities. This is the differential effect on loss of whites from elementary school and from high school. The question cannot be answered with a high degree of conclusiveness, because some apparent changes in elementary or secondary school populations may have been due rather to a grade reorganization among the schools in the district. Such reorganizations are particularly likely to occur in desegregating systems and the effects on the analytical results are unknown.

Nevertheless, Equations (1), (2), and (3) from Table 14 were analyzed separately for elementary schools and high schools, with some consistency of results. In general, the elementary school losses in the year of desegregation were much more extensive than the secondary school losses. For Equation (1), where the overall effect in the largest 21 cities was estimated at 5.5% loss of whites with a -.2 reduction in segregation, the effect for elementary schools was estimated to be 20.4%, compared to only 5.3% for secondary schools. For the next 46 cities, the elementary losses were estimated at 12.8% and the secondary at 0.5%.[31] Results for the other two equations are not inconsistent

[31] The fact that in neither the 21 cities not the 46 is the estimate of the overall effect an average, or near an average, of the estimated elementary and secondary effects raises some question about the latter estimates. We have no explanation for this anomaly, except the possiblity or school reorganization.

with these, but are marred by the high degree of collinearity among the independent variables. The indication from these results is that the effect of desegregation on elementary school losses is rather great, considerably greater than for the secondary schools. This result should be regarded as less than conclusive, because of the unknown effects of school reorganization on numbers of students classified in elementary and secondary schools, and because the collinearity prevented strong confirmation by use of equations with greater numbers of variables. Yet the result does appear in both sets of districts, and suggests that desegregation has a particularly strong effect at the elementary school level. This, of course, is more destructive of the goals of racial integration of schools than if the loss were greater at high school levels. For if the tendency of white families to leave a desegregating system is especially pronounced in the elementary grades, then the loss will have its impact at all grade levels, as the elementary children move into high school.

The earlier analysis of changes in within-district and between-district segregation at elementary and secondary schools showed that there is greater movement both within and between districts of the sort that leads to resegregation among white secondary school students than among elementary ones. The present analysis shows that this greater movement at the secondary level is not a response to desegregation, but rather a general movement independent of desegregation, presumably related to the family's age and to its affluence which increases with age.

Altogether then, what does this analysis of effects of desegregation in cities indicate? Several results can be specified with some assurance:

1. In the large cities (among the largest 22 central city school districts) there is a sizeable loss of whites when desegregation takes place.

2. There is a loss, but less than half as large, from small cities. These differences due to city size continue to hold when the reduced opportunity of white flight into surrounding school districts in the smaller cities is taken into account.

3. The estimated loss is less in northern cities which have undergone desegregation than in southern ones.

4. In addition to effects of desegregation on white loss, both the absolute proportion of blacks in the central city and their proportion relative to those in the surrounding metropolitan areas have strong effects on loss of whites from the central-city district.

5. Apart from their general effect on white loss, a high absolute proportion of blacks in the central city and a high difference in racial composition between the central-city district and the remaining metropolitan area both intensify the effects of desegregation on rates of white loss.

6. When general rates of white loss for individual cities are taken into account, the desegregation effects still hold to about the same degree as estimated from comparisons among cities.

7. No conclusive results have been obtained concerning the direct effect of desegregation in subsequent years after the first. The indirect effect, however, through increasing the proportion black in the city and the segregation between the city district and suburban ones, is to accelerate the loss of whites.

8. The effect of desegregation on white loss has been widely different among different cities where desegregation has taken place.

9. Because, insofar as we can estimate, the loss of whites upon desegregation is a one-time loss, the long-term impact of desegregation is considerably less than that of other continuing factors. The continuing white losses produce an extensive erosion of the interracial contact that desegregation of city schools brings about.

10. The effects of desegregation on loss of white elementary school children appears considerably greater than the effect on loss of secondary school children.

All this leads to general conclusions consistent with those from earlier sections of this examination: that the emerging problem with regard to school desegregation is the problem of segregation between central city and suburbs; and in addition, that current means by which schools are being desegregated are

intensifying that problem, rather than reducing it. The emerging problem of school segregation in large cities is a problem of metropolitan area residential segregation, black central cities and white suburbs, brought about by a loss of whites from the central cities. This loss is intensified by extensive school desegregation in those central cities, but in cities with high proportions of blacks and predominantly white suburbs, it proceeds at a relatively rapid rate with or without desegregation.

REFERENCES

1. Cataldo, Everett; Giles, Michael; Athos, Deborah; and Gatlin, Douglas, "Desegregation and White Flight." Integrateducation, 13 (January-February, 1975).

2. Clotfelter, Charles T. "School Desegregation, 'Tipping,' and Private School Enrollment." Journal of Human Resources (Forthcoming).

3. Farley, Reynolds. "Racial Integration in the Public Schools, 1967 to 1972: Assessing the Effects of Governmental Policies." Sociological Focus, VIII (January, 1975).

4. McDonald, Gary C., and Schwing, Richard C. "Instabilities of Regression Estimates Relating Air Pollution to Mortality." Technometrics, XV (August, 1973).

APPENDIX 1:

OFFICE FOR CIVIL RIGHTS SAMPLING PLAN

and

REPORT FORMS

1968

APPENDIX 1

OFFICE FOR CIVIL RIGHTS SAMPLING PLAN

All school districts with 3,000 or more enrollment (1967-68) were surveyed. Smaller school districts were selected for inclusion in the survey in a statistically random manner based on district enrollment size in the preceding school year (1967-68) as determined by the United States Bureau of the Census (1967 Census of Governments, Volume 1).

The sampling plan used was as follows:

District Enrollment	Sampling Rate	Projected Total In Each Size Category
3,000 and larger	100%	actual data
1,200 - 2,999	75%	1 1/3 times actual data
600 - 1,199	50%	2 times actual data
300 - 599	25%	4 times actual data
less than 300	0	none

In addition to the above sampled districts, all districts eliminating racially dual school systems under terms of voluntary plan agreements with the Department of Health, Education and Welfare or under federal court order were surveyed regardless of school district enrollment size.

In 1968, the 8,491 school districts sampled covered an estimated 43.9% of the Nation's public school districts but they enrolled an estimated 90.8% of the Nation's public elementary and secondary pupils.

These data were reported to the Office for Civil Rights by school district superintendents and/or State education agencies. The reports were required under the regulations implementing Title VI of the Civil Rights Act of 1964. Hawaii and the Territories were not required to participate in this survey. Ninety-five school districts with federal funds terminated (as of August 1968) because of non-compliance with Title VI of the Civil Rights Act of 1964 were also excluded from the survey.

SOURCE: Directory of Public Elementary and Secondary Schools in Selected Districts: Enrollment and Staff by Racial/Ethnic Groups, Fall 1968. Washington, D.C., U.S. Department of Health, Education, and Welfare, Office for Civil Rights, p. iv.

INSTRUCTIONS FOR FORM OS/CR 101
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office for Civil Rights
Washington, D.C.

SCHOOL SYSTEM REPORT
FALL 1968 ELEMENTARY AND SECONDARY SCHOOL SURVEY
Due October 15, 1968

GENERAL INSTRUCTIONS. The Fall 1968 Elementary and Secondary School Survey consists of two report forms. FORM OS/CR 101 for reporting system-wide data, and an Individual School Report (either Form OS/CR-102 or OS/CR 102-1) for reporting individual school data. Complete Form OS/CR-101 for the School System, and an Individual School Report for each individual school. See Instructions for ITEM VI below, requiring a separate report for each campus of each school.

The data reported should reflect the facts when assignments can be considered stabilized, normally in the latter part of September. The report is due October 15, 1968.

Please use a typewriter to complete the report, if possible.

SPECIAL INSTRUCTIONS. The OCR School System Number consists of the first 10 digits of the number at the top of the label affixed to the School System Report, Form OS/CR-101. This number should appear in ITEM II of each Individual School Report. If the Individual School Report is completed at the individual schools, the principals should be instructed on the correct number to place in ITEM II, of the Individual School Report.

ITEM I. Use the school system name your State uses in its published official listing of its school districts. The same name should be used in Item I of each Individual School Report.

ITEM II. Enter street address if different from address on label.

ITEM III. Enter City, County, State and Zip Code, if different from label.

ITEM IV. Enter the name of the Chief Administrative Officer of the school system.

ITEM V. Place an "x" in the appropriate box:

HEW Form 441. Has been accepted from school systems which never had, or have completed the elimination of, a dual school structure.
HEW Form 441-B. Has been accepted from school systems eliminating a dual school structure pursuant to a voluntary desegregation plan.
Assurance of Compliance with Court Order. Has been accepted from school systems eliminating a dual school structure pursuant to an order of a Federal Court.

ITEM VI. Enter the number of schools as the schools are organized by the local school system. If, however, a school has classroom buildings located on separate campuses (classroom buildings on campuses which are not contiguous), count each such separate campus as an individual school. File an Individual School Report for each school (or separate campus).

ITEM VII. Report the number of persons in each category. Do not use percentages. If there are no persons in a category, enter "0" for the category. Do not complete this item until each of the Individual School Reports has been completed.

Column 1: School System Total. Include both minority and non-minority groups.
Column 2. American Indian. Persons considered in school or community to be of American Indian origin.
Column 3: Negro. Persons considered in school or community to be of African or Negroid origin.
Column 4. Oriental. Persons considered in school or community to be of Chinese, Japanese, or other Oriental origin.
Column 5. Spanish Surnamed American. Persons considered in school or community to be of Mexican, Central-American, Cuban, Puerto Rican, Latin-American or other Spanish speaking origin.

NOTE. For the purpose of this report, minority groups are considered to be mutually exclusive, place an individual in *one minority group only.*

Line A. Enrolled Students. Regular day students on the current rolls of the individual schools of this school system, total of Item VII-A of Individual School Reports.

Line B(1) and Line B(2). Full-Time Professional Instructional Staff. Enter in the appropriate category the number of professional instructional staff members who work for this school system on a full-time basis.

Include. Principals, assistant principals, classroom teachers, supervisors of instruction, curriculum consultants, school librarians, non-classroom teachers, audio-visual staff, guidance counselors and school psychologists.

Do NOT include. Higher-level administrators (superintendent of schools), staff members who work for the school system on a part-time basis; para-professional staff members, such as teacher aides and student teachers, non-instructional staff members, such as business, financial, attendance, health, transportation, clerical, custodial, and food service personnel.

Line B(1). Assigned to One School Only. Enter on line (1) the full-time professional instructional staff members who work at only one school. These entries should be the total of the equivalent categories reported in Item VII-B(5) of the Individual School Reports.

Line B(2). Assigned to More than One School. Enter on line (2) the full-time professional instructional staff who work at more than one school.

* * * * * *

SUBMISSION OF REPORT. This report should be submitted to HEW in accordance with the forwarding instructions sent to the school system with its report forms. Before mailing, remove the school system's file copy from each set of reports. If the school system is instructed to mail the report to HEW through its State education agency, mail the four HEW copies and the State education agency copy to your State education agency. If the report is mailed directly to HEW, mail the State education agency copy to your State education agency and the four HEW copies to:

Office for Civil Rights
Department of Health, Education and Welfare
Post Office Box 14195
Washington, D.C. 20044

Before mailing the report, check the completeness and accuracy of each item, particularly the totals. Errors or omissions may require a refiling of the form. Be sure there is an Individual School report for each school.

REPORTING REQUIREMENT

This report is required pursuant to the HEW Regulation (45 CFR 80) issued to carry out the purposes of Title VI of the Civil Rights Act of 1964. Section 80.6(b) of the Regulation provides:

Compliance Reports. Each recipient shall keep such records and submit to the responsible Department official or his designee timely, complete and accurate compliance reports at such times, and in such form and containing such information as the responsible Department official or his designee may determine to be necessary to enable him to ascertain whether the recipient has complied or is complying with this Regulation

* * * * * *

If you have any questions write:
Office for Civil Rights
Department of Health, Education & Welfare
Box 14195
Washington, D.C. 20044
or telephone 202-338-7866

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office for Civil Rights
Washington, D.C.

SCHOOL SYSTEM REPORT
FALL 1968 ELEMENTARY AND SECONDARY SCHOOL SURVEY
Required Under Title VI of the Civil Rights Act of 1964
Due October 15, 1968

FORM OS/CR 101 (5/68)

Budget Bureau No:51-R550

Expiration Date: 6/30/69

I. Name of School System _____

II. Street Address _____

III. City, County, State, Zip Code _____

IV. Name of Chief Administrative Officer of School System _____

V. Most recent type of Assurance of Compliance accepted by HEW:

- ☐ HEW Form 441
- ☐ HEW From 441-B
- ☐ Assurance of Compliance with Court Order
- ☐ Other Please explain: _____

VI. Number of Schools in this School System. ☐

VII. Students and Professional Staff.

Report number of persons in each category. Do not use percentages.

	Column 1 School System Total (BOTH minority and non-minority groups)	MINORITY GROUP (Persons included in Column 1 who are members of the minority groups listed below)				
		Column 2 American Indian	Column 3 Negro	Column 4 Oriental	Column 5 Spanish Surnamed American	Column 6 Total Minority Group (Sum of Columns 2, 3, 4, and 5)
A. Enrolled Students.						
B. [illegible]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(1) Assigned to One School Only						
(2) Assigned to More Than One School						
(3) TOTAL of (1) and (2)						

To assure the submission of correct Title VI compliance data, check the completeness and accuracy of each item reported. Errors or omissions may require a refiling of this form. Be sure there is an Individual School Report for each of the schools (or separate campuses) reported in Item VI.

Certification. I certify that the information given with this report is true and accurate to the best of my knowledge and belief. A willfully false statement is punishable by law. (U.S. Code, Title 18, Section 1001).

Signature and Title of Person Furnishing Information _____ Telephone Number _____ Date Signed _____

INSTRUCTIONS
FOR FORM OS/CR 102
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office for Civil Rights
Washington, D.C.
INDIVIDUAL SCHOOL REPORT
FALL 1968 ELEMENTARY AND SECONDARY SCHOOL SURVEY
Due October 15, 1968

GENERAL INSTRUCTIONS. Normally, complete one Individual School Report (Form OS/CR 102) for each school, as the schools are organized by the local school system. If, however, a school has classroom buildings located on separate campuses (classroom buildings on campuses not contiguous to each other), file a separate report Form OS/CR-102 for each campus.

Please use a typewriter to complete the report, if possible.

ITEM I. Use the school system name your State uses in its published official listing of its school districts.

ITEM II. The OCR school system number consists of the first 10 digits of the number at the bottom of the label affixed to Form OS/CR 101 sent to the school system superintendent. If this form is completed at individual schools, the superintendent should transmit the OCR school system number to each school.

ITEM III. State the name of the school (or separate campus) covered by this report.

ITEM IV. Give the street address of the school (or separate campus) covered by this report.

ITEM V. Complete the address. Do not forget to give the zip code.

ITEM VI-A. If a school has more than one campus, each campus should file an Individual School Report.

ITEM VI-B. Mark all the boxes that apply to your school. (or separate campus)

ITEM VII. Report the number of persons in each category. Do not use percentages. If there are no persons in a category, enter "0" for the category.

Column 1: School Total. Include both minority and non-minority groups.
Column 2: American Indian. Persons considered in school or community to be of American Indian origin.
Column 3: Negro. Persons considered in school or community to be of African or Negroid origin.
Column 4: Oriental. Persons considered in school or community to be of Chinese, Japanese, or other Oriental origin.
Column 5: Spanish Surnamed American. Persons considered in school or community to be of Mexican, Central American, Cuban, Puerto Rican, Latin-American or other Spanish speaking origin.

NOTE: For the purposes of this report, minority groups are considered to be mutually exclusive, place an individual in *one minority group only*.

Line A: Enrolled Students. Enter the number of regular day school students on the current rolls as of the date of the report.

Line B(1) through B(4): Full-time Professional Instructional Staff. Enter in the category which represents their major assignment the number of professional instructional staff members assigned to this school on a full-time basis. These are professional instructional staff members whose current assignments require their services at this school for the whole of the regular school day.

Line B(1). The Principal. The professional staff member who is the administrative head of the school.

Line B(2). Assistant Principals. The professional staff members, other than the principal, who direct and manage the operation of the school.

Line B(3). Classroom Teachers. The professional staff members who instruct students in courses in classroom situations.

Line B(4). Other Instructional Staff. The professional staff members who are supervisors of instruction, curriculum consultants, school librarians, non-classroom teachers (homebound, etc.), audiovisual staff, guidance counselors and school psychologists - assigned to this school on a full time basis.

Do not include. staff members who work at this school on a part-time basis, para-professional staff members, such as teacher's aides and student teachers, or non-instructional staff members, such as attendance, business, financial, health, transportation, clerical, custodial and food service personnel.

Line C: Give the date as of which Item VII is answered.

ITEM VIII. Give the year when the school enrolled its first students.

ITEM IX. Instructions are contained in the item.

* * * * * *

SUBMISSION OF REPORT. It is the responsibility of each school system to submit this report by October 15, 1968. If the report is completed at the individual schools, it should be returned to the superintendent's office for forwarding to HEW. Before submitting the report, check the accuracy and completeness of each item, particularly the totals. Errors or omissions may require a refiling of the form.

REPORTING REQUIREMENT:

This report is required pursuant to the HEW Regulation (45 CFR 80) issued to carry out the purposes of Title VI of the Civil Rights Act of 1964. Section 80.6(b) of the Regulation provides:

Compliance Reports.- Each recipient shall keep such records and submit to the responsible Department official or his designee timely, complete and accurate compliance reports at such times, and in such form and containing such information as the responsible Department official or his designee may determine to be necessary to enable him to ascertain whether the recipient has complied or is complying with this Regulation.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office for Civil Rights
Washington, D.C.

INDIVIDUAL SCHOOL REPORT
FALL 1968 ELEMENTARY AND SECONDARY SCHOOL SURVEY

Required Under Title VI of the Civil Rights Act of 1964

Due October 15, 1968

FORM OS/CR-102 (5/68)

Budget Bureau No: 51-R0662

Expiration Date: 6/30/69

I Name of School System _____

II OCR School System Number _____

III Name of School _____

IV Street Address _____

V. City, County, State, Zip Code _____

VI. A. Number of Campuses at this School _____ NOTE: File a separate report form (OS/CR 102) for each campus.

B. Grades offered (Put an "x" in the appropriate box for each grade offered at this school)

Pre-K	K	1	2	3	4	5	6	7	8	9	10	11	12	Ungraded
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

VII. Students and Professional Staff

Report number of persons in each category. Do not use percentages.

	Column 1 School Total (BOTH minority and non-minority groups)	MINORITY GROUP MEMBERSHIP OF STUDENTS AND PROFESSIONAL STAFF (Persons included in Column 1 who are members of the minority groups listed below)				
		Column 2 American Indian	Column 3 Negro	Column 4 Oriental	Column 5 Spanish Surnamed American	Column 6 Total Minority Group (Sum of Columns 2,3,4, and 5)
A Enrolled Students						
B Professional staff assigned full time to this school						
(1) The Principal						
(2) Assistant Principals						
(3) Classroom Teachers						
(4) Other Instructional Staff						
(5) Total of (1),(2),(3),(4) above for each column.						

C Date for Item VII furnished as of (Date) _____

VIII In what school year (e.g., 1966-67) did this school first enroll students? _____

IX. State the school year in which additions to this school, if any, were opened. Include only the two most recent additions. Do not include additions opened before 1954 1955 school year. For the purpose of this question, additions do NOT include (A) temporary structures, such as mobile classrooms, or (B) structures which do not increase the student capacity of the school, such as a cafeteria, gymnasium, or school library. (If no additions, write "NONE.")

1. _____ 2. _____

To assure the submission of correct Title VI compliance data, please check the completeness and accuracy of each item reported. Errors or omissions may require a refiling of this Form.

Certification I certify that the information given above is true and correct to the best of my knowledge and belief. (A willfully false statement is punishable by law. U.S. Code Title 18, Section 1001.)

Signature and Title of Person Furnishing Information _____ Telephone Number _____ Date Signed _____

INSTRUCTIONS
for
FORM OS/CR-102-1

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office for Civil Rights
Washington, D.C.

INDIVIDUAL SCHOOL REPORT
FALL 1968 ELEMENTARY AND SECONDARY SCHOOL SURVEY

Due October 15, 1968

GENERAL INSTRUCTIONS. Normally, complete one Individual School Report (Form OS/CR-102-1) for each school, as the schools are organized by the local school system. If, however, a school has classroom buildings located on separate campuses (classroom buildings on campuses not contiguous to each other), file a separate report (Form OS/CR-102-1) for each campus.

Please use a typewriter to complete the report, if possible.

ITEM I. Use the school system name your State uses in its published official listing of its school districts.

ITEM II. The OCR school system number consists of the first 10 digits of the number at the bottom of the label affixed to Form OS/CR-101 sent the school system superintendent. If this form is completed at individual schools, the superintendent should transmit the OCR school system number to each school.

ITEM III. State the name of the school (or separate campus) covered by this report.

ITEM IV. Give the street address of the school (or separate campus) covered by this report.

ITEM V. Complete the address. Do not forget to give the zip code.

ITEM VI-A. If a school has more than one campus, each campus should file an Individual School Report.

ITEM VI-B. Mark all the boxes that apply to your school, (or separate campus).

ITEM VII. Report the number of persons in each category. Do not use percentages. If there are no persons in a category, enter "0" for the category.

Column 1: School Total. Include both minority and non-minority groups.
Column 2: American Indian. Persons considered in school or community to be of American Indian origin.
Column 3: Negro. Persons considered in school or community to be of African or Negroid origin.
Column 4: Oriental. Persons considered in school or community to be of Chinese, Japanese, or other Oriental origin.
Column 5. Spanish Surnamed American. Persons considered in school or community to be of Mexican, Central American, Cuban, Puerto Rican, Latin-American or other Spanish speaking origin.

NOTE. For the purpose of this report, minority groups are considered to be mutually exclusive, place an individual in *one minority group only*.

Item A. Enrolled Students. Enter at the appropriate grade level the number of regular day school students on the current roll as of the date of this report.

Line B(1) through B(4) Full-time Professional Instructional Staff. Enter in the category which represents their major assignment the number of professional instructional staff members assigned to this school on a full-time basis. These are professional instructional staff members whose current assignments require their services at this school for the whole of the regular school day.

Line B(1) The Principal. The professional staff member who is the administrative head of the school.

Line B(2) Assistant Principals. The professional staff members, other than the principal, who direct and manage the operation of the school.

Item B(3) Classroom Teachers. The professional staff members who instruct students in courses in classroom situations. Enter each classroom teacher at the grade level which represents his major assignment. If Grades 7 and 8 are considered secondary grades at this school, report the 7th and 8th Grade teachers as Secondary Classroom Teachers.

Line B(4) Other Instructional Staff. The professional staff members who are supervisors of instruction, curriculum consultants, school librarians, non-classroom teachers (homebound, etc.), audiovisual staff, guidance counselors and school psychologists -assigned to this school on a full-time basis.

Do not include staff members who work at this school on a part-time basis; para-professional staff members, such as teacher's aides and student teachers, or non-instructional staff members, such as attendance, business, financial, health, transportation, clerical, custodial and food service personnel.

Line C(1) Enter in the appropriate categories the number of vacancies filled at this school since October 1, 1967 by full-time professional instructional staff members new to this school system.

Line C(2) Enter in the appropriate categories the number of vacancies filled in the full-time professional instructional staff of this school since October 1, 1967 by transfers from other schools of this system.

Line D Enter the number of unfilled full-time professional instructional staff positions at this school as of the date on Line E.

Line E Give the date as of which Item VII is answered.

ITEM VIII. Give the year when the school enrolled its first students.

ITEM IX. Instructions are contained in the Item.

SUBMISSION OF REPORT. It is the responsibility of each school system to submit this report by October 15, 1968. If the report is completed at the individual schools, it should be returned to the superintendent's office for forwarding to HEW. Before submitting the report, check the accuracy and completeness of each item, particularly the totals. Errors or omissions may require a refiling of the form.

REPORTING REQUIREMENTS
This report is required pursuant to the HEW Regulation (45 CFR 80) issued to carry out the purposes of Title VI of the Civil Rights Act of 1964. Section 80.6(b) of the Regulation provides: Compliance Reports. Each recipient shall keep such records and submit to the responsible Department official or his designee timely, complete and accurate compliance reports at such times, and in such form containing such information as the responsible Department official or his designee may determine to be necessary to enable him to ascertain whether the recipient has complied or is complying with this Regulation.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office for Civil Rights
Washington, D.C.

INDIVIDUAL SCHOOL REPORT BY GRADES
FALL 1968 ELEMENTARY AND SECONDARY SCHOOL SURVEY
Required Under Title VI of the Civil Rights Act of 1964
Due October 15, 1968

FORM OS/CR 102-1 (5/68)
Budget Bureau No. 51-R0551
Expiration Date: 6/30/69

I. Name of School System
II. OCR School System Number
III. Name of School
IV. Street Address
V. City, County, State, Zip Code
VI. A. Number of Campuses at this School ☐ NOTE. File a separate report form (OS/CR 102-1) for each campus.
B. Grades offered (Put an "x" in the appropriate box for each grade offered at this school)

Pre K	K	1	2	3	4	5	6	7	8	9	10	11	12	Ungraded
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

VII. Students and Professional Staff
Report number of persons in each category. Do not use percentages.

	Column 1 School Total (BOTH minority and non minority groups)	MINORITY GROUP MEMBERSHIP OF STUDENTS AND PROFESSIONAL STAFF (Persons included in Column 1 who are members of the minority groups listed below)				
		Column 2 American Indian	Column 3 Negro	Column 4 Oriental	Column 5 Spanish Surnamed American	Column 6 Total Minority Group (Sum of Col. 2,3,4,& 5)
A. Enrolled Students Pre K						
K						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
Ungraded Special Educa						
Other Ungraded						
TOTAL Enrollment						
B. Professional Instructional Staff Assigned to this School on a Full Time Basis						
(1) The Principal						
(2) Assistant Principals						
(3) Classroom Teachers Pre K						
(a) Elementary Classroom Teachers (by grade) K						
1						
2						
3						
4						
5						
6						
7						
8						
(b) Secondary Classroom Teachers (as a group)						
(c) Ungraded, Special Educa						
(d) Other Ungraded						
TOTAL Classroom Teachers						
(4) Other Instructional Staff						
(5) TOTAL of (1),(2),(3),(4)						
C. Vacancies filled in Full Time Professional Staff of this School since [illegible] 1968						
(1) Newly hired staff members (new to this system)						
(2) Transfers (staff members transferred from another school of this system)						
(3) TOTAL of (1) and (2)						

D. Number of Current Vacancies in Full time professional instructional staff ☐
E. Data for Item VII furnished as of (Date)

VIII. In what school year (e.g. 1966-67) did this school first enroll students?

IX. State the school year in which additions to this school, if any, were opened. Include only the two most recent additions. Do not include additions opened before 1954-1955 school year. For the purpose of this question, additions do NOT include (A) temporary structures, such as mobile classrooms, or (B) structures which do not increase the student capacity of the school, such as a cafeteria, gymnasium, or school library. (If no additions, write "NONE".)
1. ____ 2. ____

To assure the submission of correct Title VI compliance data, please check the completeness and accuracy of each item reported. Errors or omissions may require a refiling of this form.

Certification. I certify that the information given above is true and correct to the best of my knowledge and belief. (A willfully false statement is punishable by law. U.S. Code Title 18, Section 1001.)

Signature and Title of Person Furnishing Information | Telephone Number | Date Signed

APPENDIX 2

ALTERNATE USE OF S_{wb}

APPENDIX 2

ALTERNATE USE OF S_{wb}

We will consider here the possible use, as a independent variable in studying white loss, the change in proportion black in the average white child's classroom, Δs_{wb}, using the notation of equation (1) in the text. This was not done in the analyses carried out, because Δs_{wb} is not only affected by desegregation actions which rearrange pupils among schools, but also by any loss of whites that takes place. However, the following approach is suggested for future work.

We assume that the proportion of whites lost to the system (p_w) is a function of various factors including change in the proportion of blacks in the average white child's classroom due to desegregation. That change we will call $\Delta_1 s$.

$$p_w = f(\Delta_1 s, x_1, x_2, \ldots, x_n). \qquad (A1)$$

But the observed change in proportion of blacks in the average white child's school, Δs, includes both this change, $\Delta_1 s$, and a change due to a change in numbers of whites and blacks in the system, which we will call $\Delta_2 s$:

$$\Delta s = \Delta_1 s + \Delta_2 s \qquad (A2)$$

Now if the proportion of whites lost to the system between year t-1 and year t is p_w, then the proportion remaining is $c_w = 1 - p_w$. Similarly, the number of blacks in the system in year t as a proportion of those present in year t-1 is c_b. And the number of others (neither blacks nor whites) as a proportion of the number in the preceding year is c_o. If s_{wb}, s_{ww}, and s_{wo} are the proportion of blacks, whites and others in the average white child's school in year t-1, then by definition, $s_{wb_{t-1}} = s_{wb_{t-1}} / (s_{wb_{t-1}} + s_{ww_{t-1}} + s_{wo_{t-1}})$

and in year t, the value of s_{wb} which would occur if there were general changes in each population group would be:

$$s^*_{wbt} = (c_b s_{wb_{t-1}}) / (c_b s_{wb_{t-1}} + c_w s_{wb_{t-1}} + c_o s_{wo_{t-1}}) \quad (A3)$$

And the change in s due merely to general changes in the proportion in each population group (dropping the subscripts on s^*_{wbt}) is : $\Delta_2 s = s^*_t - s_{t-1}$.

Now, from equation (A2), $\Delta_1 s = \Delta s - \Delta_2 s$ or:

$$\Delta_1 s = s_t - s_{t-1} - (s^*_t - s_{t-1}) = s_t - s^*_t$$

Now for use in a regression equation, s_t is calculated as usual, and s^*_t is calculated according to equation (A3). This will allow use of a variable, $\Delta_1 s$, which is independent of the general changes in population composition, and dependent only on the differential changes in different schools, i.e., changes in the degree of segregation. This variable is:

$$\Delta_1 s_{wb} = s_{wbt} - (c_b s_{wb_{t-1}}) / (c_b s_{wb_{t-1}} + c_w s_{ww_{t-1}} + c_o s_{wo_{t-1}}) \quad (A4)$$

The regression of p_w on $\Delta_1 s_{wb}$ will be independent of general changes in numbers of whites, blacks and others in the system, and thus p_w and $\Delta_1 s_{wb}$ can be used for the same pair of years in the equation.

APPENDIX 3

Basic Data for 70

Largest Central City

School Districts

(ranked by 1972 enrollment)

ALL SCHOOLS

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4220580	1	135	467365	0.16617	0.47208	0.31476	1063787
2	4220580	1	135	452827	0.17900	0.46876	0.33695	1115870
3	4220580	1	135	436457	0.18098	0.47554	0.34508	1140359
4	4220580	1	135	424418	0.18290	0.47707	0.34976	1151715
5	4220580	1	135	400495	0.18574	0.48409	0.36001	1125449
6	4220580	1	135	380631	0.18349	0.49804	0.36555	1104920
4220580	6							
New York City								
1	1422710	1	110	350909	0.03157	0.86034	0.22605	653549
3	1422710	1	110	324065	0.03772	0.84346	0.24098	642895
4	1422710	1	110	309504	0.04297	0.82713	0.24857	634138
5	1422710	1	110	293303	0.05082	0.79869	0.25244	620659
6	1422710	1	110	271655	0.05295	0.79136	0.25380	611228
1422710	5							
Los Angeles								
1	2309930	1	39	219478	0.07511	0.85812	0.52942	582274
2	2309930	1	39	209888	0.07748	0.85648	0.53985	582071
3	2309930	1	39	199669	0.07566	0.86199	0.54825	577679
4	2309930	1	39	185321	0.07644	0.86362	0.56054	569922
5	2309930	1	39	170373	0.07244	0.87313	0.57097	553342
6	2309930	1	39	157913	0.07009	0.87890	0.57881	539365
2309930	6							
Chicago								
1	4818990	1	149	109512	0.21114	0.64071	0.58766	282617
2	4818990	1	149	105710	0.20814	0.65152	0.59728	282312
3	4818990	1	149	101153	0.19355	0.68043	0.60564	278593
4	4818990	1	149	95844	0.17917	0.70724	0.61199	271446
5	4818990	1	149	99537	0.18685	0.69590	0.61445	282941
6	4818990	1	149	91633	0.17224	0.71920	0.61341	268410
4818990	6							
Philadelphia								
1	3212000	1	53	116250	0.20126	0.66008	0.59209	296097
2	3212000	1	53	105280	0.21245	0.65556	0.61680	288187
3	3212000	1	53	98046	0.20703	0.67564	0.63828	284200
4	3212000	1	53	94042	0.21455	0.66892	0.64801	281690
5	3212000	1	53	84392	0.24055	0.64405	0.67580	276547
6	3212000	1	53	73759	0.26738	0.61844	0.70077	263958
3212000	6							
Detroit								
1	5323640	1	83	131099	0.03560	0.89311	0.33306	246098
2	5323640	1	83	124451	0.04087	0.87789	0.33468	236220
3	5323640	1	83	119181	0.08211	0.76969	0.35650	241139
4	5323640	1	83	107587	0.09266	0.75320	0.37547	231581
5	5323640	1	83	98282	0.10177	0.74187	0.39426	225410
6	5323640	1	83	87776	0.11333	0.72472	0.41169	216982
5323640	6							
Houston								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	3000090	1	18	66997	0.18702	0.71288	0.65137	192171
2	3000090	1	18	65329	0.19507	0.70520	0.66172	193123
3	3000090	1	18	63238	0.20210	0.69900	0.67142	192498
4	3000090	1	18	60742	0.20644	0.69710	0.68154	190735
5	3000090	1	18	57350	0.21178	0.69425	0.69266	186600
6	3000090	1	18	54549	0.21403	0.69363	0.69860	182733
3000090		6						
Baltimore								
1	5316230	1	47	97888	0.02818	0.90847	0.30786	159924
2	5316230	1	47	96480	0.02510	0.92117	0.31838	162490
3	5316230	1	47	93388	0.02624	0.92277	0.33977	163632
4	5316230	1	47	85782	0.08681	0.75920	0.36053	159192
5	5316230	1	47	78214	0.10813	0.71972	0.38580	154581
6	5316230	1	47	72688	0.12693	0.68948	0.40875	153549
5316230		6						
Dallas								
1	4504378	1	41	66102	0.08575	0.84683	0.55985	155829
2	4504378	1	41	62303	0.08395	0.85211	0.56763	150718
3	4504378	1	41	61345	0.07925	0.86229	0.57553	151637
4	4504378	1	41	59553	0.07619	0.86761	0.57550	148207
5	4504378	1	41	58189	0.07543	0.86898	0.57575	145196
6	4504378	1	41	54780	0.07572	0.86819	0.57445	137569
4504378		6						
Cleveland								
1	5202940	1	118	58271	0.04095	0.92355	0.53568	125813
2	5202940	1	118	59777	0.04990	0.90980	0.55322	134190
3	5202940	1	118	71743	0.07245	0.85918	0.51450	148304
4	5202940	1	118	67242	0.08775	0.83668	0.53727	145903
5	5202940	1	118	58309	0.11996	0.79241	0.57787	138714
6	5202940	1	118	37846	0.47086	0.30898	0.68140	119542
5202940		6						
Memphis								
1	5909600	1	122	95161	0.05854	0.75470	0.23864	130445
2	5909600	1	122	93533	0.05598	0.78340	0.25845	132462
3	5909600	1	122	93023	0.06323	0.75640	0.25958	132349
4	5909600	1	122	89318	0.06468	0.76914	0.28017	131815
5	5909600	1	122	84265	0.07218	0.75730	0.29741	127810
6	5909600	1	122	78820	0.08546	0.72645	0.31242	123224
5909600		6						
Milwaukee								
1	1434320	1	176	98079	0.04010	0.65557	0.11641	128817
2	1434320	1	176	97886	0.04642	0.62111	0.12250	128401
3	1434320	1	176	97078	0.05171	0.58397	0.12430	128783
4	1434320	1	176	96105	0.05483	0.57206	0.12812	128075
5	1434320	1	176	91657	0.05938	0.55169	0.13246	124391
6	1434320	1	176	89961	0.06410	0.53197	0.13696	123466
1434320		6						
San Diego								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4504380	1	45	81655	0.10381	0.59998	0.25952	110699
2	4504380	1	45	80171	0.10249	0.61168	0.26393	109411
3	4504380	1	45	79074	0.10748	0.59880	0.26790	108548
4	4504380	1	45	78921	0.11743	0.58382	0.28216	110598
5	4504380	1	45	74852	0.12335	0.58012	0.29377	106588
6	4504380	1	45	70747	0.13266	0.56489	0.30489	102336
4504380	6							
Columbus								
1	1900870	1	198	74629	0.04174	0.78677	0.19037	100985
2	1900870	1	198	76332	0.05547	0.71019	0.19141	103795
3	1900870	1	198	77764	0.06883	0.64486	0.19361	105347
4	1900870	1	198	75394	0.19013	0.02576	0.19516	101298
5	1900870	1	198	80136	0.18459	0.02536	0.18939	107540
6	1900870	1	198	84781	0.18029	0.03907	0.18762	113842
1900870	6							
Tampa								
1	3529280	1	170	41810	0.11578	0.81768	0.63505	115557
2	3529280	1	170	39861	0.12622	0.80431	0.64498	113355
3	3529280	1	170	37877	0.12558	0.80855	0.65592	111218
4	3529280	1	170	34383	0.11530	0.82993	0.67796	107975
5	3529280	1	170	32630	0.10688	0.84456	0.68761	105592
6	3529280	1	170	29798	0.10750	0.84515	0.69422	98850
3529280	6							
St. Louis								
1	2801170	1	134	34673	0.19014	0.71679	0.67138	110783
2	2801170	1	134	33459	0.20725	0.69525	0.68007	110664
3	2801170	1	134	31406	0.23046	0.66856	0.69535	109856
4	2801170	1	134	28323	0.26595	0.62820	0.71530	107433
5	2801170	1	134	24535	0.28948	0.61215	0.74639	103639
6	2801170	1	134	20879	0.33556	0.56528	0.77189	98828
2801170	6							
New Orleans								
1	2404770	1	86	72010	0.10991	0.67372	0.33685	108587
2	2404770	1	86	70204	0.11792	0.66121	0.34805	108192
3	2404770	1	86	67772	0.13029	0.63615	0.35810	106239
4	2404770	1	86	63334	0.15455	0.58968	0.37664	102326
5	2404770	1	86	59079	0.16753	0.57348	0.39278	98976
6	2404770	1	86	53289	0.25166	0.39203	0.41393	91714
2404770	6							
Indianapolis								
1	3102790	1	27	64500	0.10817	0.60822	0.27058	94174
2	3102790	1	27	62657	0.10651	0.62949	0.28746	94687
3	3102790	1	27	62014	0.10737	0.63977	0.29807	96696
4	3102790	1	27	59390	0.10905	0.65663	0.31758	96610
5	3102790	1	27	57405	0.12024	0.63529	0.32968	96239
6	3102790	1	27	53593	0.12483	0.63426	0.34131	93647
3102790	6							
Boston								

Year	School District Number	Metro Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	2000120	1	13	42506	0.09254	0.85009	0.61731	111227
2	2000120	1	13	39318	0.11775	0.81630	0.64101	109664
3	2000120	1	13	32605	0.20284	0.70588	0.68964	105141
4	2000120	1	13	27698	0.23456	0.67511	0.72197	100172
5	2000120	1	13	21683	0.28374	0.63181	0.77063	96006
6	2000120	1	13	15997	0.42029	0.48405	0.81459	88125
2000120	6							
Atlanta								
1	1503360	1	51	63398	0.04361	0.69120	0.14122	96577
2	1503360	1	51	61912	0.07658	0.46883	0.14417	96634
3	1503360	1	51	60454	0.08958	0.39225	0.14739	97928
4	1503360	1	51	57177	0.10167	0.35289	0.15712	94840
5	1503360	1	51	53420	0.11574	0.32588	0.17168	91616
6	1503360	1	51	49892	0.12257	0.31086	0.17786	87620
1503360	6							
Denver								
1	4100060	1	5	47677	0.01355	0.43089	0.02380	79615
2	4100060	1	5	48066	0.01506	0.42443	0.02617	82086
3	4100060	1	5	48945	0.01631	0.33260	0.02444	83781
4	4100060	1	5	49357	0.01639	0.34962	0.02520	85446
5	4100060	1	5	49764	0.01864	0.27269	0.02563	86658
6	4100060	1	5	48225	0.01878	0.25349	0.02516	85497
4100060	6							
Albuquerque								
1	1434410	1	177	38671	0.17085	0.38019	0.27565	93941
2	1434410	1	177	34250	0.16998	0.38992	0.27862	92795
3	1434410	1	177	33601	0.18285	0.35866	0.28511	91150
4	1434410	1	177	28343	0.27306	0.10174	0.30398	83584
5	1434410	1	177	26067	0.28119	0.08007	0.30566	81970
6	1434410	1	177	23089	0.28368	0.06982	0.30497	78010
1434410	6							
San Francisco								
1	4302970	1	37	58623	0.10054	0.65531	0.29167	83111
2	4302970	1	37	59530	0.12081	0.58644	0.29813	84518
3	4302970	1	37	56819	0.28963	0.05936	0.30790	82507
4	4302970	1	37	54926	0.30834	0.03130	0.31830	81042
5	4302970	1	37	53629	0.31273	0.03336	0.32352	79813
6	4302970	1	37	51928	0.32344	0.03167	0.33402	78599
4302970	6							
Charlotte-Mecklenburg								
1	4011340	1	136	13716	0.27139	0.62557	0.72462	75960
2	4011340	1	136	11755	0.27413	0.62175	0.72475	77137
3	4011340	1	136	11198	0.26482	0.63325	0.72267	78456
4	4011340	1	136	9820	0.27188	0.62240	0.72003	79661
5	4011340	1	136	9639	0.24531	0.66044	0.72244	78379
6	4011340	1	136	8626	0.24772	0.65753	0.72332	76674
4011340	6							
Newark								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4504375	1	40	49231	0.19304	0.55045	0.42940	86807
2	4504375	1	40	47648	0.19837	0.54833	0.43918	85286
3	4504375	1	40	46064	0.19909	0.55714	0.44957	84199
4	4504375	1	40	43837	0.19772	0.56917	0.45893	81600
5	4504375	1	40	40763	0.19864	0.57972	0.47264	77878
6	4504375	1	40	37039	0.20015	0.59138	0.48983	73373

4504375 6
Cincinnati

1	5707710	1	182	77291	0.06418	0.41733	0.11016	94002
2	5707710	1	182	72535	0.06773	0.41603	0.11597	89188
3	5707710	1	182	66417	0.07471	0.41145	0.12694	83243
4	5707710	1	182	60072	0.08473	0.37587	0.13576	76844
5	5707710	1	182	58024	0.09166	0.36365	0.14403	75239
6	5707710	1	182	53087	0.09337	0.38455	0.15171	70273

5707710 6
Seattle

1	5338730	1	174	21310	0.05002	0.65892	0.14665	79353
2	5338730	1	174	18829	0.08925	0.39393	0.14726	78289
3	5338730	1	174	17704	0.10893	0.29003	0.15343	77253
4	5338730	1	174	16014	0.11531	0.25489	0.15476	74955
5	5338730	1	174	14173	0.12343	0.22006	0.15826	72305
6	5338730	1	174	12837	0.13227	0.18323	0.16195	70530

5338730 6
San Antonio

1	4630240	1	205	66413	0.02371	0.80500	0.12162	79990
2	4630240	1	205	65943	0.03228	0.75139	0.12985	79566
3	4630240	1	205	64077	0.03732	0.72783	0.13713	77822
4	4630240	1	205	61390	0.06214	0.56054	0.14140	75080
5	4630240	1	205	56859	0.07713	0.49857	0.15381	71190
6	4630240	1	205	53312	0.08593	0.46843	0.16166	67802

4630240 6
Tulsa

1	4819170	1	152	46005	0.16110	0.58904	0.39201	76268
2	4819170	1	152	43962	0.16273	0.59238	0.39921	73500
3	4819170	1	152	43679	0.16451	0.59154	0.40276	73461
4	4819170	1	152	41876	0.17400	0.57620	0.41058	71502
5	4819170	1	152	40484	0.19108	0.54257	0.41772	70080
6	4819170	1	152	39146	0.19898	0.53026	0.42358	68414

4819170 6
Pittsburgh

1	4710050	1	155	70156	0.04990	0.38747	0.08147	78413
2	4710050	1	155	68583	0.05243	0.39139	0.08614	77398
3	4710050	1	155	66757	0.05883	0.36143	0.09212	75857
4	4710050	1	155	63233	0.06107	0.37546	0.09778	72593
5	4710050	1	155	58854	0.07642	0.28425	0.10677	68437
6	4710050	1	155	56394	0.08405	0.26341	0.11410	66325

4710050 6
Portland

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	2800540	1	19	39772	0.03357	0.90994	0.37271	63725
2	2800540	1	19	40939	0.04178	0.88783	0.37242	65566
3	2800540	1	19	39188	0.12378	0.67939	0.38607	64198
4	2800540	1	19	39866	0.12399	0.68232	0.39030	65906
5	2800540	1	19	40751	0.12847	0.66959	0.38882	67342
6	2800540	1	19	40527	0.12996	0.66380	0.38656	67011

2800540 6

E. Baton Rouge

1	1002370	1	124	44023	0.06542	0.84298	0.41664	75464
2	1002370	1	124	42620	0.13907	0.66902	0.42017	73504
3	1002370	1	124	38677	0.19475	0.56203	0.44467	69791
4	1002370	1	124	35548	0.28963	0.37698	0.46488	66593
5	1002370	1	124	35943	0.27736	0.39253	0.45659	66263
6	1002370	1	124	35222	0.27823	0.39318	0.45850	65184

1002370 6

Mobile

1	1428050	1	177	19835	0.24193	0.56174	0.55203	64102
2	1428050	1	177	17774	0.26441	0.53732	0.57147	61679
3	1428050	1	177	19098	0.27910	0.50751	0.56670	67067
4	1428050	1	177	15617	0.30542	0.49536	0.60523	61988
5	1428050	1	177	13981	0.31682	0.49094	0.62236	60651
6	1428050	1	177	14409	0.32241	0.48250	0.62302	60703

1428050 6

Oakland

1	3516400	1	93	39510	0.13005	0.72184	0.46753	74202
2	3516400	1	93	37312	0.11504	0.76345	0.48633	72638
3	3516400	1	93	35128	0.11032	0.78013	0.50175	70503
4	3516400	1	93	32838	0.10607	0.79624	0.52058	68495
5	3516400	1	93	29836	0.11171	0.79461	0.54389	65414
6	3516400	1	93	25155	0.11932	0.78634	0.55844	62096

3516400 6

Kansas City, Mo.

1	4205850	1	31	43942	0.14329	0.60829	0.36582	72115
2	4205850	1	31	42546	0.15740	0.58261	0.37709	71441
3	4205850	1	31	41021	0.16582	0.56932	0.38502	70305
4	4205850	1	31	38939	0.17894	0.55009	0.39773	68217
5	4205850	1	31	35275	0.18544	0.55090	0.41290	64296
6	4205850	1	31	32527	0.18468	0.56533	0.42487	60752

4205850 6

Buffalo

1	1422500	1	110	61218	0.03988	0.47596	0.07610	71777
2	1422500	1	110	59422	0.04522	0.45178	0.08249	70472
3	1422500	1	110	57676	0.05090	0.43887	0.09071	69250
4	1422500	1	110	54760	0.05882	0.41521	0.10059	67254
5	1422500	1	110	50892	0.06922	0.37765	0.11122	63838
6	1422500	1	110	47432	0.07420	0.37816	0.11932	62413

1422500 6

Long Beach.

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	3774820	1	143	49956	0.06008	0.66759	0.18074	62431
2	3774820	1	143	49582	0.06358	0.65598	0.18481	62481
3	3774820	1	143	50381	0.06402	0.65500	0.18556	63516
4	3774820	1	143	50352	0.07177	0.61989	0.18881	63931
5	3774820	1	143	49384	0.08127	0.58019	0.19358	63125
6	3774820	1	143	46923	0.08593	0.56540	0.19771	60502
3774820	6							
Omaha								
1	1208760	1	204	36294	0.02505	0.51422	0.05156	53667
2	1208760	1	204	37995	0.02567	0.50249	0.05160	55964
3	1208760	1	204	25703	0.03147	0.45524	0.05778	39618
4	1208760	1	204	27799	0.03301	0.41564	0.05649	42949
5	1208760	1	204	28172	0.03098	0.43053	0.05441	43323
6	1208760	1	204	27815	0.03189	0.39522	0.05274	42854
1208760	6							
Tucson								
1	5318300	1	57	26294	0.03294	-0.00401	0.02905	62105
2	5318300	1	57	25847	0.03945	-0.00851	0.03121	62199
3	5318300	1	57	25359	0.03846	-0.00855	0.03017	62545
4	5318300	1	57	25205	0.04026	-0.01016	0.03042	62960
5	5318300	1	57	24096	0.04114	-0.01159	0.02990	62404
6	5318300	1	57	23983	0.04354	-0.01253	0.03141	63937
5318300	6							
El Paso								
1	4504490	1	201	43551	0.09194	0.65165	0.26393	61183
2	4504490	1	201	44279	0.10354	0.61749	0.27067	62965
3	4504490	1	201	43504	0.10357	0.61053	0.26592	61699
4	4504490	1	201	43580	0.10227	0.62679	0.27404	62746
5	4504490	1	201	42773	0.10974	0.59740	0.27257	61694
6	4504490	1	201	40669	0.11337	0.60216	0.28496	59911
4504490	6							
Toledo								
1	3321240	1	123	62490	0.05355	0.28656	0.07506	70006
2	3321240	1	123	60112	0.05509	0.31961	0.08096	68278
3	3321240	1	123	58143	0.05947	0.32991	0.08874	66855
4	3321240	1	123	55497	0.06588	0.32291	0.09729	64877
5	3321240	1	123	51804	0.07165	0.32253	0.10576	61546
6	3321240	1	123	48405	0.08220	0.29725	0.11698	58833
3321240	6							
Minneapolis								
1	4622770	1	142	58472	0.03378	0.84472	0.21753	74727
2	4622770	1	142	53470	0.04969	0.78145	0.22736	72945
3	4622770	1	142	50495	0.05466	0.76236	0.22999	70042
4	4622770	1	142	49571	0.06715	0.71550	0.23602	69141
5	4622770	1	142	42224	0.23829	0.09491	0.26328	60275
6	4622770	1	142	37461	0.24636	0.07815	0.26724	54041
4622770	6							
Oklahoma City								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	1000390	1	24	32278	0.06382	0.87587	0.51413	66434
2	1000390	1	24	31175	0.08005	0.84839	0.52804	66054
3	1000390	1	24	28125	0.19056	0.65119	0.54633	61994
4	1000390	1	24	26031	0.20283	0.64088	0.56479	59907
5	1000390	1	24	23372	0.20498	0.65491	0.59398	57729
6	1000390	1	24	20781	0.20842	0.66267	0.61785	54512

1000390 6

Birmingham

1	2612990	1	216	58060	0.05575	0.57221	0.13032	68391
2	2612990	1	216	56218	0.07572	0.45286	0.13840	67025
3	2612990	1	216	52868	0.09577	0.34723	0.14671	63811
4	2612990	1	216	48861	0.14995	0.03201	0.15491	59868
5	2612990	1	216	45942	0.15904	0.02791	0.16360	57254
6	2612990	1	216	43914	0.16589	0.02871	0.17079	55431

2612990 6

Wichita

1	5002310	1	78	43853	0.03979	0.82011	0.22117	56306
3	5002310	1	78	44385	0.21523	0.03693	0.22348	57222
4	5002310	1	78	44761	0.21798	0.01903	0.22221	57635
5	5002310	1	78	44164	0.21736	0.02412	0.22273	56930
6	5002310	1	78	43835	0.21824	0.02242	0.22324	56598

5002310 5

Greenville

1	5308940	1	16	33934	0.02758	0.81655	0.15037	51760
2	5308940	1	16	34354	0.03283	0.77872	0.14836	52724
3	5308940	1	16	35400	0.03720	0.75317	0.15069	54974
4	5308940	1	16	35816	0.06941	0.52658	0.14662	55565
5	5308940	1	16	35214	0.07273	0.51398	0.14964	55861
6	5308940	1	16	36968	0.08802	0.40508	0.14795	58332

5308940 6

Austin

1	1414550	1	70	40701	0.02065	0.77109	0.09022	58180
2	1414550	1	70	40599	0.02303	0.73066	0.08550	57029
3	1414550	1	70	40132	0.03231	0.63678	0.08895	57450
4	1414550	1	70	38644	0.03610	0.61116	0.09284	55913
5	1414550	1	70	37665	0.03932	0.57909	0.09342	54990
6	1414550	1	70	36722	0.04355	0.55416	0.09768	54758

1414550 6

Fresno

1	4504348	1	2	43341	0.13121	0.49215	0.25836	58589
2	4504348	1	2	41637	0.13570	0.48823	0.26516	56838
3	4504348	1	2	40880	0.13755	0.49643	0.27315	56426
4	4504348	1	2	39943	0.14097	0.49308	0.27810	55570
5	4504348	1	2	38306	0.14589	0.49206	0.28722	53966
6	4504348	1	2	36101	0.15197	0.48630	0.29584	51521

4504348 6

Akron

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	2800300	1	183	33909	0.01770	0.95948	0.43697	60483
2	2800300	1	183	31989	0.07595	0.83186	0.45170	58782
3	2800300	1	183	27298	0.20813	0.57536	0.49012	53866
4	2800300	1	183	26677	0.21949	0.55713	0.49561	53330
5	2800300	1	183	26044	0.21692	0.56442	0.49801	52336
6	2800300	1	183	24099	0.25881	0.49742	0.51496	50054

2800300 6

Shreveport

1	4504384	1	49	36582	0.07198	0.81200	0.38285	59527
2	4504384	1	49	35191	0.08494	0.78412	0.39343	58287
3	4504384	1	49	33415	0.09809	0.75870	0.40653	56609
4	4504384	1	49	31348	0.11112	0.73962	0.42675	55041
5	4504384	1	49	28698	0.13739	0.69180	0.44580	52162
6	4504384	1	49	26111	0.16362	0.64654	0.46291	48960

4504384 6

Dayton

1414550 6

1	1414880	1	9	47147	0.00145	0.07665	0.00157	52908
3	1414880	1	9	46050	0.00195	0.06427	0.00209	52684
4	1414880	1	9	45024	0.00299	0.08454	0.00327	51983
5	1414880	1	9	43994	0.00359	0.10346	0.00401	51382
6	1414880	1	9	42677	0.00485	0.11247	0.00546	50346

1414880 5

Garden Grove, Calif.

1	2703600	1	111	29699	0.16306	0.64653	0.46131	55212
2	2703600	1	111	28194	0.14715	0.68885	0.47292	53586
3	2703600	1	111	27458	0.14162	0.70655	0.48262	53197
4	2703600	1	111	25786	0.14045	0.71191	0.48753	50440
5	2703600	1	111	24011	0.14688	0.71223	0.51041	49133
6	2703600	1	111	22199	0.15184	0.70915	0.52205	46545

2703600 6

Louisville

1	1433840	1	167	34763	0.11915	0.14518	0.13939	52545
2	1433840	1	167	34763	0.12573	0.13776	0.14582	53327
3	1433840	1	167	33496	0.13143	0.14343	0.15343	52218
4	1433840	1	167	31261	0.13770	0.15266	0.16251	49658
5	1433840	1	167	30247	0.14371	0.14532	0.16814	48774
6	1433840	1	167	29006	0.15223	0.13972	0.17696	47588

1433840 6

Sacramento

1	5602670	1	138	31824	0.08520	0.79685	0.41941	56029
2	5602670	1	138	33689	0.10665	0.74631	0.42040	59429
3	5602670	1	138	29644	0.23617	0.47421	0.44917	55117
4	5602670	1	138	25830	0.46020	0.03972	0.47924	50791
5	5602670	1	138	24024	0.47766	0.03556	0.49527	48701
6	5602670	1	138	24204	0.48209	0.03624	0.50022	50404

5602670 6

Norfolk

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	3333840	1	123	45669	0.04412	0.23859	0.05795	50338
2	3333840	1	123	43432	0.04622	0.26364	0.06277	48432
3	3333840	1	123	44378	0.04512	0.29059	0.06360	49732
4	3333840	1	123	44130	0.04500	0.30714	0.06495	49621
5	3333840	1	123	42476	0.04549	0.32919	0.06781	48059
6	3333840	1	123	40234	0.05072	0.30235	0.07270	45954
3333840	6							
St. Paul								
1	4301500	1	77	35975	0.04974	0.82036	0.27690	49831
2	4301500	1	77	36521	0.05088	0.81509	0.27518	50462
3	4301500	1	77	35690	0.11568	0.58274	0.27723	49514
4	4301500	1	77	33744	0.28228	0.04016	0.29409	47938
5	4301500	1	77	32464	0.28817	0.05040	0.30346	46675
6	4301500	1	77	31487	0.29677	0.04561	0.31095	45801
4301500	6							
Winston-Salem/Forsythe								
1	5315270	1	46	22097	0.00990	0.81702	0.05413	46110
2	5315270	1	46	21808	0.01038	0.80704	0.05378	46025
3	5315270	1	46	20901	0.01492	0.73329	0.05595	46292
4	5315270	1	46	19530	0.01741	0.69279	0.05667	45900
5	5315270	1	46	18798	0.02262	0.59045	0.05524	45567
6	5315270	1	46	18015	0.03002	0.46926	0.05657	44815
5315270	6							
Corpus Christi								
1	2403870	1	73	14063	0.12095	0.80360	0.61585	48431
2	2403870	1	73	13246	0.14188	0.77559	0.63224	48436
3	2403870	1	73	12095	0.14885	0.77010	0.64747	46595
4	2403870	1	73	10710	0.15044	0.77709	0.67487	45332
5	2403870	1	73	9910	0.15844	0.77234	0.69596	44830
6	2403870	1	73	8640	0.18823	0.73956	0.72273	43312
2403870	6							
Gary								
1	5603240	1	163	13542	0.16593	0.75700	0.68285	43115
2	5603240	1	163	12487	0.19626	0.72144	0.70453	42719
3	5603240	1	163	17041	0.36771	0.42680	0.64151	47988
4	5603240	1	163	13781	0.61990	0.10244	0.69066	45031
5	5603240	1	163	12901	0.63377	0.09663	0.70156	43825
6	5603240	1	163	10799	0.66622	0.09084	0.73279	40960
5603240	6							
Richmond								
1	4224750	1	165	32016	0.18035	0.37544	0.28876	47372
2	4224750	1	165	30352	0.19230	0.38243	0.31138	46843
3	4224750	1	165	28410	0.20322	0.38691	0.33147	45500
4	4224750	1	165	26076	0.24689	0.30777	0.35665	44152
5	4224750	1	165	24271	0.23660	0.37617	0.37924	43347
6	4224750	1	165	22956	0.24895	0.37954	0.40123	43304
4224750	6							
Rochester								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	2403630	1	68	35377	0.05661	0.59121	0.13848	41595
2	2403630	1	68	36540	0.06421	0.53437	0.13790	43016
3	2403630	1	68	36375	0.06476	0.56708	0.14959	43400
4	2403630	1	68	36377	0.09048	0.41667	0.15510	43822
5	2403630	1	68	35448	0.09627	0.40193	0.16097	43245
6	2403630	1	68	34201	0.10129	0.39172	0.16652	42012

2403630 6
Ft. Wayne

1	2508970	1	52	42425	0.05134	0.33842	0.07760	46532
2	2508970	1	52	41698	0.05625	0.28694	0.07889	45788
3	2508970	1	52	41177	0.05855	0.29168	0.08267	45375
4	2508970	1	52	40102	0.05720	0.32155	0.08430	44340
5	2508970	1	52	38796	0.05850	0.35381	0.09052	43226
6	2508970	1	52	37546	0.06084	0.33320	0.09124	42000

2508970 6
Des Moines

1	2334510	1	166	32183	0.07187	0.40065	0.11992	36975
2	2334510	1	166	37650	0.06731	0.39529	0.11131	42826
3	2334510	1	166	37342	0.07902	0.35714	0.12292	43116
4	2334510	1	166	36218	0.07788	0.39067	0.12781	42133
5	2334510	1	166	35131	0.08108	0.40494	0.13625	41364
6	2334510	1	166	34010	0.09202	0.36587	0.14511	40619

2334510 6
Rockford, Ill.

1	4007830	1	90	16457	0.22866	0.46998	0.43141	37083
2	4007830	1	90	15880	0.22821	0.47678	0.43617	37916
3	4007830	1	90	14991	0.22959	0.48277	0.44387	38430
4	4007830	1	90	14915	0.22959	0.48522	0.44600	39256
5	4007830	1	90	13912	0.22463	0.50569	0.45442	38616
6	4007830	1	90	12423	0.20995	0.54633	0.46279	37948

4007830 6
Jersey City

1	1402640	1	9	30816	0.00051	-0.00000	0.00051	33563
2	1402640	1	9	32955	0.00102	-0.00001	0.00101	36761
4	1402640	1	9	32944	0.00157	-0.00000	0.00157	37049
5	1402640	1	9	33112	0.00216	0.00221	0.00217	37340
6	1402640	1	9	33313	0.00256	-0.00001	0.00255	37594

1402640 5
Anaheim

1	1434590	1	178	24041	0.00951	0.36927	0.01508	35417
2	1434590	1	178	24780	0.00976	0.40063	0.01629	36041
3	1434590	1	178	25730	0.00987	0.37623	0.01582	37176
4	1434590	1	178	26034	0.01059	0.31554	0.01517	36906
5	1434590	1	178	26288	0.01005	0.27209	0.01381	37146
6	1434590	1	178	26201	0.01051	0.25278	0.01406	36697

1434590 6
San Jose

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	1002430	1	126	22402	0.03816	0.91062	0.42696	39093
2	1002430	1	126	22207	0.12513	0.70920	0.43028	38979
3	1002430	1	126	20530	0.24742	0.45583	0.45468	37651
4	1002430	1	126	20318	0.25247	0.45078	0.45969	37604
5	1002430	1	126	19823	0.25895	0.44131	0.46350	36949
6	1002430	1	126	19217	0.26099	0.44381	0.46924	36293

1002430 6

Montgomery, Ala.

1	5346680	1	57	11755	0.01738	0.40052	0.02900	30208
2	5346680	1	57	11772	0.02136	0.22225	0.02746	31430
3	5346680	1	57	11887	0.02244	0.17445	0.02718	33262
4	5346680	1	57	12097	0.02785	0.00664	0.02803	35352
5	5346680	1	57	12140	0.03060	-0.00249	0.02817	36736
6	5346680	1	57	12213	0.03088	-0.00472	0.02629	39179

5346680 6

Ysleta (El Paso)

1	1503060	1	42	25340	0.03495	0.44613	0.06309	30336
2	1503060	1	42	26658	0.03692	0.40957	0.06253	31779
3	1503060	1	42	27596	0.03921	0.36802	0.06204	33025
4	1503060	1	42	28746	0.04314	0.29181	0.06091	34426
5	1503060	1	42	29853	0.04357	0.30049	0.06228	35853
6	1503060	1	42	29171	0.04362	0.28272	0.06081	34996

1503060 6

Colorado Springs

APPENDIX 3

Basic Data for 70
Largest Central City
School Districts
(ranked by 1972 enrollment)

ELEMENTARY

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4220580	1	135	202859	0.14862	0.53374	0.31874	502055
2	4220580	1	135	201202	0.15891	0.52740	0.33624	537356
3	4220580	1	135	191832	0.15919	0.53081	0.33928	537420
4	4220580	1	135	179723	0.16121	0.53406	0.34600	518318
5	4220580	1	135	170216	0.15641	0.55437	0.35100	501634
6	4220580	1	135	155062	0.15725	0.56440	0.36101	483668
4220580	6							
New York City								
1	1422710	1	110	188646	0.02677	0.89035	0.24414	373146
2	1422710	1	110	179883	0.02898	0.88347	0.24870	366399
3	1422710	1	110	167842	0.02997	0.88260	0.25529	356726
4	1422710	1	110	158152	0.03386	0.87021	0.26085	346770
5	1422710	1	110	147981	0.03855	0.85068	0.25817	334738
6	1422710	1	110	132322	0.03668	0.85759	0.25753	323999
1422710	6							
Los Angeles								
1	2309930	1	39	144791	0.04736	0.90903	0.52057	387540
2	2309930	1	39	138561	0.04900	0.90728	0.52840	385729
3	2309930	1	39	133292	0.04933	0.90830	0.53792	388851
4	2309930	1	39	125651	0.04961	0.90869	0.54329	379792
5	2309930	1	39	114924	0.04817	0.91277	0.55227	365575
6	2309930	1	39	104640	0.04777	0.91423	0.55696	350836
2309930	6							
Chicago								
1	4818990	1	149	57017	0.19287	0.68730	0.61681	158453
2	4818990	1	149	56427	0.18642	0.69969	0.62076	161216
3	4818990	1	149	55255	0.16616	0.72939	0.61404	156421
4	4818990	1	149	52799	0.14940	0.75303	0.60493	147445
5	4818990	1	149	54345	0.14684	0.75613	0.60214	148755
6	4818990	1	149	49128	0.13203	0.78031	0.60098	139326
4818990	6							
Philadelphia								
1	3212000	1	53	69381	0.17931	0.69414	0.58624	174773
2	3212000	1	53	64028	0.19012	0.68821	0.60975	172472
3	3212000	1	53	57699	0.17662	0.71722	0.62460	161761
4	3212000	1	53	55232	0.18810	0.70359	0.63480	159744
5	3212000	1	53	50059	0.21751	0.67006	0.65924	156118
6	3212000	1	53	42966	0.24353	0.64612	0.68819	147511
3212000	6							
Detroit								
1	5323640	1	83	74920	0.03863	0.88959	0.35166	150031
2	5323640	1	83	68179	0.03961	0.88617	0.34793	137572
3	5323640	1	83	65716	0.06110	0.83557	0.37159	142556
4	5323640	1	83	57177	0.06662	0.82201	0.37432	125411
5	5323640	1	83	50120	0.07453	0.81203	0.39649	119471
6	5323640	1	83	43851	0.08908	0.78434	0.41307	114097
5323640	6							
Houston								
1	3000090	1	18	42182	0.13229	0.79624	0.64924	120258
2	3000090	1	18	41026	0.13179	0.79712	0.64958	117078
3	3000090	1	18	31715	0.11829	0.81666	0.64522	89393
4	3000090	1	18	28328	0.13262	0.80368	0.67553	87306
5	3000090	1	18	26126	0.14027	0.79488	0.68384	82635
6	3000090	1	18	24672	0.13655	0.79689	0.67232	75604
3000090	6							
Baltimore								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	5316230	1	47	54512	0.02450	0.92556	0.32919	94105
2	5316230	1	47	52994	0.02136	0.93350	0.32123	90157
3	5316230	1	47	50693	0.02025	0.93937	0.33393	89300
4	5316230	1	47	42982	0.03059	0.90390	0.31833	75518
5	5316230	1	47	39037	0.04741	0.85454	0.32592	71386
6	5316230	1	47	35282	0.06318	0.81989	0.35078	69520
5316230	6							
Dallas								
1	4504378	1	41	36218	0.07944	0.85815	0.56003	85742
2	4504378	1	41	34220	0.08378	0.85355	0.57207	83880
3	4504378	1	41	33495	0.07510	0.86775	0.56792	81420
4	4504378	1	41	32132	0.06851	0.87879	0.56527	78264
5	4504378	1	41	30509	0.06082	0.89339	0.57048	75310
6	4504378	1	41	29152	0.05512	0.90207	0.56278	71488
4504378	6							
Cleveland								
1	5202940	1	118	34868	0.04112	0.92151	0.52389	73452
2	5202940	1	118	34724	0.05689	0.89581	0.54603	76736
3	5202940	1	118	40545	0.07866	0.84618	0.51139	83306
4	5202940	1	118	35280	0.09753	0.82198	0.54786	78376
5	5202940	1	118	30297	0.12694	0.78696	0.59587	75303
6	5202940	1	118	12510	0.48229	0.32885	0.71859	44800
5202940	6							
Memphis								
1	5909600	1	122	51854	0.04924	0.82371	0.27933	75982
2	5909600	1	122	51252	0.04909	0.82439	0.27953	75709
3	5909600	1	122	49427	0.05001	0.80809	0.26059	71222
4	5909600	1	122	46842	0.05931	0.79611	0.29098	71224
5	5909600	1	122	41884	0.06832	0.78686	0.32052	66588
6	5909600	1	122	38473	0.07598	0.77299	0.33471	63245
5909600	6							
Milwaukee								
1	1434320	1	176	53756	0.03537	0.70860	0.12139	71052
2	1434320	1	176	53337	0.04137	0.67682	0.12802	71716
3	1434320	1	176	51587	0.04488	0.65629	0.13057	69901
4	1434320	1	176	51365	0.04736	0.63942	0.13135	69470
5	1434320	1	176	48537	0.04852	0.61916	0.12739	65844
6	1434320	1	176	46262	0.05485	0.60706	0.13960	64276
1434320	6							
San Diego								
1	4504380	1	45	49078	0.07844	0.69402	0.25635	66287
2	4504380	1	45	49057	0.08067	0.69432	0.26391	66965
3	4504380	1	45	47238	0.08526	0.66501	0.25451	63687
4	4504380	1	45	45066	0.09378	0.65342	0.27060	62133
5	4504380	1	45	42869	0.10748	0.62536	0.28688	60485
6	4504380	1	45	39991	0.11387	0.61725	0.29750	57274
4504380	6							
Columbus								
1	1900870	1	198	38834	0.03459	0.83691	0.21208	53564
2	1900870	1	198	39781	0.03942	0.81180	0.20947	55102
3	1900870	1	198	39734	0.04635	0.76256	0.19522	53441
4	1900870	1	198	10312	0.24510	0.03128	0.25302	14750
5	1900870	1	198	11936	0.21929	0.05076	0.23102	16925
6	1900870	1	198	10963	0.23618	0.06416	0.25238	16095
1900870	6							
Tampa								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	3529280	1	170	26727	0.12087	0.81394	0.64964	76994
2	3529280	1	170	25651	0.13065	0.80241	0.66124	76415
3	3529280	1	170	23815	0.12331	0.81655	0.67214	73372
4	3529280	1	170	20880	0.10988	0.83930	0.68373	66678
5	3529280	1	170	19735	0.09990	0.85399	0.68418	63156
6	3529280	1	170	18148	0.09919	0.85544	0.68614	58628
3529280	6							
St. Louis								
1	2801170	1	134	18797	0.16798	0.75866	0.69602	64869
2	2801170	1	134	17740	0.18861	0.73326	0.70710	64230
3	2801170	1	134	15863	0.22159	0.69088	0.71685	60604
4	2801170	1	134	12568	0.24497	0.67445	0.75248	56251
5	2801170	1	134	12416	0.25947	0.65570	0.75362	54724
6	2801170	1	134	6557	0.35895	0.56819	0.83128	42634
2801170	6							
New Orleans								
1	2404770	1	86	51683	0.07561	0.77769	0.34010	78319
2	2404770	1	86	50289	0.08050	0.77033	0.35050	77798
3	2404770	1	86	48418	0.08375	0.76719	0.35974	76067
4	2404770	1	86	44121	0.09969	0.72910	0.36798	70302
5	2404770	1	86	39746	0.10440	0.73069	0.38764	65391
6	2404770	1	86	35759	0.20915	0.49182	0.41156	61313
2404770	6							
Indianapolis								
1	3102790	1	27	31465	0.09925	0.63764	0.27391	46917
2	3102790	1	27	31006	0.09965	0.66423	0.29679	48229
3	3102790	1	27	29764	0.09032	0.70276	0.30387	47623
4	3102790	1	27	27339	0.08629	0.73154	0.32142	45632
5	3102790	1	27	23420	0.09150	0.73112	0.34031	41042
6	3102790	1	27	21776	0.09804	0.70550	0.33290	38970
3102790	6							
Boston								
1	2000120	1	13	27244	0.07403	0.88152	0.62482	72730
2	2000120	1	13	25275	0.09611	0.85197	0.64927	72155
3	2000120	1	13	21167	0.17972	0.74051	0.69259	68918
4	2000120	1	13	17586	0.21150	0.70244	0.71078	61231
5	2000120	1	13	13440	0.25835	0.65813	0.75570	56071
6	2000120	1	13	6641	0.43538	0.46031	0.83777	41614
2000120	6							
Atlanta								
1	1503360	1	51	33468	0.03872	0.74669	0.15284	54313
2	1503360	1	51	32656	0.06647	0.56276	0.15202	54256
3	1503360	1	51	30984	0.07364	0.53565	0.15859	51889
4	1503360	1	51	28769	0.08099	0.50914	0.16500	50262
5	1503360	1	51	26766	0.10391	0.40462	0.17453	47979
6	1503360	1	51	24460	0.10656	0.40346	0.17863	44852
1503360	6							
Denver								
1	4100060	1	5	23312	0.01500	0.43771	0.02667	40752
2	4100060	1	5	23185	0.01724	0.38750	0.02814	41537
3	4100060	1	5	23335	0.02003	0.28023	0.02782	41874
4	4100060	1	5	21931	0.02023	0.30195	0.02898	39747
5	4100060	1	5	21674	0.02112	0.25813	0.02847	39478
6	4100060	1	5	20232	0.02190	0.24924	0.02918	37907
4100060	6							
Albuquerque								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	1434410	1	177	18486	0.14351	0.50452	0.28963	44671
2	1434410	1	177	16496	0.14387	0.48923	0.28168	43880
3	1434410	1	177	15427	0.16148	0.45472	0.29615	40473
4	1434410	1	177	5832	0.32291	-0.00078	0.32239	17879
5	1434410	1	177	5060	0.32956	-0.00829	0.32396	17002
6	1434410	1	177	4673	0.32403	-0.00593	0.32000	16847
1434410 6 San Francisco								
1	4302970	1	37	31470	0.08631	0.70874	0.29631	44949
2	4302970	1	37	31120	0.09569	0.68032	0.29932	44698
3	4302970	1	37	19388	0.29749	0.09095	0.32725	29060
4	4302970	1	37	18919	0.32528	0.02939	0.33513	28702
5	4302970	1	37	18512	0.32748	0.02993	0.33758	28239
6	4302970	1	37	16800	0.34363	0.03356	0.35557	26400
4302970 6 Charlotte- Mecklenburg								
1	4011340	1	136	8793	0.23502	0.66699	0.70576	48810
2	4011340	1	136	7408	0.22555	0.67183	0.68728	46492
3	4011340	1	136	7274	0.20666	0.69120	0.66924	44446
4	4011340	1	136	6164	0.20662	0.69681	0.68148	45410
5	4011340	1	136	6239	0.19018	0.71732	0.67280	43160
6	4011340	1	136	5662	0.19160	0.71465	0.67146	41989
4011340 6 Newark								
1	4504375	1	40	28527	0.14307	0.66674	0.42931	50269
2	4504375	1	40	27511	0.14807	0.65829	0.43333	48760
3	4504375	1	40	25918	0.15062	0.65140	0.44223	46777
4	4504375	1	40	23970	0.14393	0.67298	0.44011	43123
5	4504375	1	40	21036	0.15212	0.67550	0.46880	39951
6	4504375	1	40	19769	0.15048	0.68286	0.47449	38005
4504375 6 Cincinnati								
1	5707710	1	182	40931	0.06922	0.44758	0.12530	50854
2	5707710	1	182	37939	0.07421	0.43632	0.13166	47805
3	5707710	1	182	32334	0.07269	0.45326	0.13295	41196
4	5707710	1	182	24824	0.08768	0.38078	0.14159	32375
5	5707710	1	182	11335	0.07551	0.43308	0.13318	14799
6	5707710	1	182	23329	0.10183	0.33394	0.15289	31166
5707710 6 Seattle								
1	5338730	1	174	10327	0.03025	0.80548	0.15550	43563
2	5338730	1	174	7796	0.06566	0.47431	0.12490	39657
3	5338730	1	174	7204	0.07078	0.43906	0.12618	38699
4	5338730	1	174	6500	0.07273	0.42537	0.12656	36756
5	5338730	1	174	5282	0.07949	0.38279	0.12879	34910
6	5338730	1	174	4953	0.07975	0.38469	0.12960	34189
5338730 6 San Antonio								
1	4630240	1	205	36670	0.01545	0.87071	0.11951	44282
2	4630240	1	205	36770	0.02277	0.83705	0.13972	44511
3	4630240	1	205	35213	0.02785	0.79634	0.13673	42507
4	4630240	1	205	32146	0.04459	0.71357	0.15566	39862
5	4630240	1	205	29224	0.05345	0.64224	0.14939	36314
6	4630240	1	205	25867	0.05734	0.62626	0.15343	32445
4630240 6 Tulsa								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4819170	1	152	24968	0.15688	0.63053	0.42461	43819
2	4819170	1	152	24064	0.15376	0.64207	0.42958	42418
3	4819170	1	152	24150	0.14612	0.65476	0.42326	42114
4	4819170	1	152	21546	0.14288	0.66529	0.42689	37886
5	4819170	1	152	17482	0.17012	0.62278	0.45097	32142
6	4819170	1	152	17772	0.16196	0.63462	0.44326	32218
4819170	6							
Pittsburgh								
1	4710050	1	155	43765	0.04231	0.47235	0.08019	48847
2	4710050	1	155	43665	0.04686	0.46113	0.08695	49361
3	4710050	1	155	41018	0.04348	0.45882	0.08034	45965
4	4710050	1	155	38069	0.04941	0.46851	0.09296	43491
5	4710050	1	155	34601	0.06672	0.30797	0.09641	39766
6	4710050	1	155	32651	0.07328	0.28967	0.10317	37987
4710050	6							
Portland								
1	2800540	1	19	23829	0.03463	0.90351	0.35886	37377
2	2800540	1	19	24409	0.04189	0.88400	0.36116	38459
3	2800540	1	19	22609	0.10941	0.71711	0.38676	37106
4	2800540	1	19	21159	0.10273	0.74244	0.39885	35482
5	2800540	1	19	21203	0.10298	0.74045	0.39678	35544
6	2800540	1	19	20392	0.10771	0.73264	0.40287	34517
2800540	6							
E. Baton Rouge								
1	1002370	1	124	23941	0.06762	0.83302	0.40497	40235
2	1002370	1	124	21245	0.15080	0.62947	0.40698	35825
3	1002370	1	124	17127	0.18138	0.53868	0.39317	28283
4	1002370	1	124	13919	0.24502	0.38636	0.39929	23231
5	1002370	1	124	14376	0.23465	0.39764	0.38956	23601
6	1002370	1	124	14416	0.23324	0.39094	0.38295	23442
1002370	6							
Mobile								
1	1428050	1	177	11262	0.20887	0.62624	0.55885	36910
2	1428050	1	177	10325	0.23571	0.59003	0.57494	35647
3	1428050	1	177	9682	0.26236	0.55866	0.59446	35802
4	1428050	1	177	8839	0.27899	0.54091	0.60769	34641
5	1428050	1	177	7713	0.30383	0.51525	0.62677	32988
6	1428050	1	177	6897	0.32475	0.49176	0.63896	30963
1428050	6							
Oakland								
1	3516400	1	93	22868	0.13193	0.73497	0.49780	45536
2	3516400	1	93	21759	0.12367	0.75900	0.51317	44695
3	3516400	1	93	20101	0.12044	0.77127	0.52657	42458
4	3516400	1	93	18399	0.12124	0.77488	0.53855	39872
5	3516400	1	93	16258	0.12748	0.77238	0.56005	36954
6	3516400	1	93	13066	0.14469	0.74839	0.57504	33570
3516400	6							
Kansas City MO								
1	4205850	1	31	27131	0.11365	0.68437	0.36006	44634
2	4205850	1	31	25526	0.12903	0.63079	0.34948	41445
3	4205850	1	31	25052	0.13180	0.63340	0.35953	41813
4	4205850	1	31	22883	0.13689	0.64463	0.38521	39802
5	4205850	1	31	20665	0.14536	0.63539	0.39867	37246
6	4205850	1	31	19775	0.14297	0.62862	0.38498	34893
4205850	6							
Buffalo								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	1422500	1	110	31927	0.04315	0.54818	0.09551	38846
2	1422500	1	110	30882	0.04936	0.51710	0.10221	38204
3	1422500	1	110	30015	0.05618	0.49443	0.11112	37230
4	1422500	1	110	28470	0.06221	0.46589	0.11648	36059
5	1422500	1	110	26487	0.07097	0.44221	0.12723	34222
6	1422500	1	110	24460	0.07203	0.45974	0.13333	33338
1422500		6						
Long Beach								
1	3774820	1	143	28673	0.04981	0.73190	0.18580	36135
2	3774820	1	143	28970	0.05570	0.70633	0.18968	36899
3	3774820	1	143	28690	0.05576	0.71176	0.19344	36673
4	3774820	1	143	27020	0.06627	0.67690	0.20510	35115
5	3774820	1	143	27124	0.07319	0.64730	0.20752	35386
6	3774820	1	143	25698	0.07086	0.61853	0.18575	32667
3774820		6						
Omaha								
1	1208760	1	204	18639	0.02895	0.53474	0.06222	29187
2	1208760	1	204	18912	0.02781	0.51444	0.05728	28929
3	1208760	1	204	18800	0.03164	0.45517	0.05808	29390
4	1208760	1	204	20617	0.03208	0.43786	0.05706	32193
5	1208760	1	204	20968	0.02950	0.46218	0.05486	32394
6	1208760	1	204	20655	0.03078	0.42090	0.05316	32076
1208760		6						
Tucson								
1	5318300	1	57	17507	0.03816	-0.00526	0.03307	40156
2	5318300	1	57	17536	0.04298	-0.00897	0.03432	40212
3	5318300	1	57	16792	0.04284	-0.00990	0.03327	39946
4	5318300	1	57	16406	0.04354	-0.01140	0.03251	39984
5	5318300	1	57	15170	0.04490	-0.01313	0.03219	38920
6	5318300	1	57	14876	0.04619	-0.01289	0.03374	39036
5318300		6						
El Paso								
1	4504490	1	201	27894	0.08484	0.71170	0.29429	40933
2	4504490	1	201	27960	0.10173	0.65514	0.29499	41161
3	4504490	1	201	26946	0.10379	0.64435	0.29181	39669
4	4504490	1	201	26821	0.09677	0.67143	0.29451	39791
5	4504490	1	201	25505	0.09869	0.66198	0.29196	37909
6	4504490	1	201	24053	0.10096	0.66474	0.30113	36433
4504490		6						
Toledo								
1	3321240	1	123	33774	0.05733	0.33168	0.08579	38526
2	3321240	1	123	32648	0.05746	0.36576	0.09060	37871
3	3321240	1	123	30646	0.06383	0.38055	0.10304	36209
4	3321240	1	123	25750	0.06485	0.40559	0.10909	30900
5	3321240	1	123	23188	0.06896	0.40658	0.11621	28147
6	3321240	1	123	20792	0.07118	0.36069	0.11134	25535
3321240		6						
Minneapolis								
1	4622770	1	142	33087	0.01827	0.92105	0.23137	43047
2	4622770	1	142	28784	0.02681	0.88769	0.23871	40296
3	4622770	1	142	26821	0.03623	0.84939	0.24056	37911
4	4622770	1	142	26260	0.04866	0.79570	0.23820	36965
5	4622770	1	142	10485	0.25914	0.03109	0.26745	14855
6	4622770	1	142	9027	0.27096	0.03618	0.28113	13140
4622770		6						
Oklahoma City								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	1000390	1	24	22283	0.05140	0.90216	0.52530	46941
2	1000390	1	24	21218	0.07055	0.86953	0.54077	46203
3	1000390	1	24	19037	0.16684	0.70028	0.55666	42970
4	1000390	1	24	17301	0.17445	0.69298	0.56822	40134
5	1000390	1	24	15458	0.17604	0.70603	0.59882	38651
6	1000390	1	24	13536	0.17665	0.71705	0.62432	36156
1000390	6							
Birmingham								
1	2612990	1	216	32294	0.03620	0.74870	0.14405	38682
2	2612990	1	216	30406	0.04368	0.71047	0.15088	36778
3	2612990	1	216	28129	0.06907	0.57074	0.16089	34526
4	2612990	1	216	24865	0.16604	0.03692	0.17241	31228
5	2612990	1	216	22992	0.17190	0.01951	0.17532	29227
6	2612990	1	216	22012	0.17450	0.02308	0.17862	28278
2612990	6							
Wichita								
1	5002310	1	78	24110	0.03727	0.84648	0.24275	31839
2	5002310	1	78	22799	0.06224	0.76472	0.26455	31000
3	5002310	1	78	7272	0.21273	0.05985	0.22627	9409
4	5002310	1	78	13812	0.21834	0.01842	0.22243	17776
5	5002310	1	78	13990	0.21199	0.02162	0.21668	17879
6	5002310	1	78	12661	0.20314	0.02576	0.20851	16023
5002310	6							
Greenville								
1	5308940	1	16	16359	0.02388	0.84305	0.15213	26654
2	5308940	1	16	18024	0.02758	0.77390	0.12196	27951
3	5308940	1	16	18066	0.02974	0.76775	0.12806	28658
4	5308940	1	16	18266	0.04030	0.73063	0.14959	29821
5	5308940	1	16	11679	0.04584	0.75879	0.19005	21642
6	5308940	1	16	3087	0.14324	0.14769	0.16806	6361
5308940	6							
Austin								
1	1414550	1	70	22229	0.01485	0.84519	0.09593	33106
2	1414550	1	70	22057	0.01885	0.78995	0.08975	32168
3	1414550	1	70	21508	0.03031	0.67324	0.09277	31939
4	1414550	1	70	20578	0.03196	0.66986	0.09681	30720
5	1414550	1	70	19944	0.03386	0.65082	0.09697	30245
6	1414550	1	70	19213	0.03744	0.63362	0.10219	29974
1414550	6							
Fresno								
1	4504348	1	2	23797	0.10391	0.59236	0.25491	32046
2	4504348	1	2	23492	0.11504	0.56933	0.26713	32157
3	4504348	1	2	22638	0.11653	0.57603	0.27484	31327
4	4504348	1	2	21513	0.11927	0.57362	0.27972	29994
5	4504348	1	2	20272	0.12510	0.56564	0.28800	28597
6	4504348	1	2	18721	0.13525	0.54768	0.29901	26865
4504348	6							
Akron								
1	2800300	1	183	18531	0.01576	0.96676	0.47404	35385
2	2800300	1	183	16961	0.09765	0.80012	0.48854	33465
3	2800300	1	183	14162	0.16942	0.66685	0.50855	29006
4	2800300	1	183	1476	0.12664	0.76074	0.52930	3157
5	2800300	1	183	55	0.91551	0.05386	0.96763	1699
6	2800300	1	183	43	0.96087	0.00000	0.96087	1099
2800300	6							
Shreveport								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4504384	1	49	25485	0.06612	0.81677	0.36083	40049
2	4504384	1	49	24182	0.07473	0.79595	0.36625	38329
3	4504384	1	49	23137	0.08369	0.76765	0.36019	36334
4	4504384	1	49	15951	0.06017	0.79676	0.29605	22783
5	4504384	1	49	13641	0.07802	0.77200	0.34220	20858
6	4504384	1	49	13832	0.10054	0.70992	0.34660	21324
4504384	6							
Dayton								
1	1414880	1	9	25737	0.00174	0.08121	0.00189	29087
3	1414880	1	9	25425	0.00235	0.06481	0.00251	29433
4	1414880	1	9	23133	0.00348	0.08944	0.00382	27211
5	1414880	1	9	22543	0.00435	0.10900	0.00488	26860
6	1414880	1	9	20527	0.00552	0.13542	0.00638	24760
1414880	5							
Garden Grove								
1	2703600	1	111	16732	0.14128	0.71417	0.49428	33151
2	2703600	1	111	15739	0.12438	0.75286	0.50328	31746
3	2703600	1	111	14962	0.11068	0.77115	0.48363	29049
4	2703600	1	111	13787	0.10723	0.77905	0.48529	26854
5	2703600	1	111	12751	0.10794	0.78846	0.51025	26091
6	2703600	1	111	11840	0.11794	0.77205	0.51739	24589
2703600	6							
Louisville								
1	1433840	1	167	19446	0.11728	0.19752	0.14615	29435
2	1433840	1	167	19051	0.12185	0.19563	0.15149	29151
4	1433840	1	167	17168	0.12802	0.22186	0.16452	27303
5	1433840	1	167	16393	0.13174	0.21111	0.16700	26372
6	1433840	1	167	15383	0.13590	0.21343	0.17278	25044
1433840	5							
Sacramento								
1	5602670	1	138	17173	0.06417	0.85473	0.44174	31555
2	5602670	1	138	18127	0.07746	0.82322	0.43815	33153
3	5602670	1	138	11812	0.15356	0.68697	0.49055	23918
4	5602670	1	138	5252	0.45269	0.06165	0.48243	10532
5	5602670	1	138	4870	0.49453	0.05060	0.52089	10459
6	5602670	1	138	7413	0.48566	0.05885	0.51603	15910
5602670	6							
Norfolk								
1	3333840	1	123	23231	0.04503	0.29385	0.06377	26045
2	3333840	1	123	23083	0.04597	0.30757	0.06639	25962
3	3333840	1	123	23279	0.04550	0.33238	0.06815	26426
4	3333840	1	123	19672	0.04756	0.37112	0.07563	22609
5	3333840	1	123	18358	0.04799	0.39831	0.07977	21262
6	3333840	1	123	16901	0.04964	0.41544	0.08492	19806
3333840	6							
St. Paul								
1	4301500	1	77	19187	0.03521	0.08303	0.30098	27490
2	4301500	1	77	19227	0.03779	0.86835	0.28704	27010
3	4301500	1	77	16275	0.09431	0.66652	0.28281	22757
4	4301500	1	77	6725	0.30343	0.02296	0.31056	9776
5	4301500	1	77	6467	0.30493	0.03280	0.31527	9465
6	4301500	1	77	6121	0.31985	0.04846	0.33614	9261
4301500	6							
Winston-Salem/Forsythe								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	5315270	1	46	10895	0.00477	0.91865	0.05858	24581
2	5315270	1	46	10594	0.00527	0.90795	0.05728	24391
3	5315270	1	46	10050	0.01242	0.78399	0.05752	24357
5315270	3							
Corpus Christi								
1	2403870	1	73	7186	0.09021	0.86198	0.65358	26546
2	2403870	1	73	6799	0.11836	0.82143	0.66283	26681
3	2403870	1	73	6049	0.12283	0.81775	0.67397	25599
4	2403870	1	73	4850	0.10453	0.84761	0.68590	20274
5	2403870	1	73	4200	0.08999	0.86919	0.68797	17819
6	2403870	1	73	5430	0.14019	0.78170	0.64219	19351
2403870	6							
Gary								
1	5603240	1	163	7780	0.16597	0.76340	0.70147	26389
2	5603240	1	163	6712	0.18266	0.75043	0.73189	25296
3	5603240	1	163	5559	0.20672	0.59299	0.50790	11390
4	5603240	1	163	2401	0.62958	0.10736	0.70530	8232
5	5603240	1	163	2271	0.60051	0.13435	0.69372	7529
6	5603240	1	163	1797	0.67549	0.10226	0.75243	7396
5603240	6							
Richmond								
1	4224750	1	165	17529	0.16842	0.37775	0.27066	25283
2	4224750	1	165	17168	0.17921	0.38098	0.28951	25726
3	4224750	1	165	14577	0.18041	0.41624	0.30905	22605
4	4224750	1	165	4608	0.20883	0.48809	0.40795	8180
5	4224750	1	165	1651	0.20603	0.63674	0.56718	4168
4224750	5							
Rochester								
1	2403630	1	68	20175	0.05122	0.66814	0.15435	24217
2	2403630	1	68	20566	0.05965	0.61423	0.15464	24768
3	2403630	1	68	20433	0.05684	0.64774	0.16135	24810
4	2403630	1	68	19199	0.03420	0.52797	0.07245	21076
5	2403630	1	68	18778	0.03703	0.53279	0.07926	20779
6	2403630	1	68	17894	0.03848	0.51468	0.07930	19824
2403630	6							
Ft. Wayne								
1	2508970	1	52	24589	0.04741	0.42604	0.08261	27128
2	2508970	1	52	23883	0.05534	0.34016	0.08387	26386
3	2508970	1	52	23268	0.05115	0.32557	0.07583	25450
4	2508970	1	52	22311	0.04852	0.38168	0.07846	24521
5	2508970	1	52	15621	0.06074	0.42038	0.10480	17758
6	2508970	1	52	14923	0.05201	0.39782	0.08636	16662
2508970	6							
Des Moines								
1	2334510	1	166	16375	0.05813	0.40562	0.09779	18345
2	2334510	1	166	21719	0.04433	0.37602	0.07104	23605
3	2334510	1	166	17314	0.05637	0.29250	0.07967	18991
4	2334510	1	166	18784	0.05720	0.31832	0.08391	20737
5	2334510	1	166	17783	0.05949	0.37386	0.09500	19936
6	2334510	1	166	17076	0.06993	0.31222	0.10168	19395
2334510	6							
Rockford ILL								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4007830	1	90	10231	0.22238	0.51776	0.46115	25443
2	4007830	1	90	10041	0.21953	0.50984	0.44788	25748
3	4007830	1	90	9464	0.20649	0.53889	0.44781	25687
4	4007830	1	90	9461	0.20100	0.54993	0.44661	26043
5	4007830	1	90	9009	0.19392	0.57932	0.46097	26418
6	4007830	1	90	8101	0.17867	0.61540	0.46457	26007

4007830 6
Jersey City

1402640 0
Anaheim

1	1434590	1	178	13702	0.00965	0.37547	0.01545	20447
2	1434590	1	178	14017	0.00992	0.40317	0.01663	20630
3	1434590	1	178	14624	0.01029	0.36373	0.01618	21451
4	1434590	1	178	14656	0.01096	0.27952	0.01522	21159
5	1434590	1	178	14684	0.01000	0.29076	0.01410	21059
6	1434590	1	178	14347	0.01075	0.26483	0.01462	20448

1434590 6
San Jose

1	1002430	1	126	14608	0.03470	0.92423	0.45796	26950
2	1002430	1	126	14364	0.13707	0.70063	0.45786	26495
3	1002430	1	126	11642	0.24029	0.50632	0.48673	22682
4	1002430	1	126	11311	0.25446	0.48778	0.49677	22477
5	1002430	1	126	9666	0.24837	0.49607	0.49286	19060
6	1002430	1	126	10173	0.26019	0.50267	0.52317	21383

1002430 6
Montgomery ALA

1	5346680	1	57	8058	0.01666	0.44233	0.02988	22425
2	5346680	1	57	7458	0.01938	0.19436	0.02406	22115
3	5346680	1	57	7533	0.02109	0.13818	0.02447	23257
4	5346680	1	57	7069	0.02628	-0.00037	0.02592	22918
5	5346680	1	57	6822	0.02576	-0.00111	0.02468	23342
6	5346680	1	57	6737	0.02532	-0.00261	0.02277	23891

5346680 6
Ysleta

1	1503060	1	42	14183	0.03401	0.53231	0.07271	17507
2	1503060	1	42	14276	0.03569	0.50345	0.07187	17518
3	1503060	1	42	14470	0.03649	0.48355	0.07065	17805
4	1503060	1	42	15334	0.03862	0.40266	0.06465	18762
5	1503060	1	42	15758	0.03782	0.40793	0.06388	19238
6	1503860	1	42	15303	0.03725	0.39148	0.06121	18543

1503060 6
Colorado Springs

APPENDIX 3

Basic Data for 70
Largest Central City
School Systems
(ranked by 1972 enrollment)

SECONDARY

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4220580	1	135	151483	0.18338	0.26842	0.25066	268280
2	4220580	1	135	141909	0.20975	0.26875	0.28684	274770
3	4220580	1	135	138009	0.21655	0.28183	0.30153	285000
4	4220580	1	135	135621	0.21743	0.29793	0.30970	298385
5	4220580	1	135	128564	0.22584	0.32119	0.33270	297421
6	4220580	1	135	118180	0.22701	0.34648	0.34736	287791
4220580		6						
New York City								
1	1422710	1	110	77712	0.03237	0.82265	0.18252	133101
2	1422710	1	110	82268	0.03404	0.83099	0.20140	142606
3	1422710	1	110	77751	0.03670	0.81965	0.20348	136735
4	1422710	1	110	75611	0.04589	0.78930	0.21779	137658
5	1422710	1	110	73672	0.05578	0.75550	0.22814	138341
6	1422710	1	110	69355	0.06391	0.73031	0.23699	137031
1422710		6						
Los Angeles								
1	2309930	1	39	59507	0.12582	0.73274	0.47077	128519
2	2309930	1	39	56691	0.12545	0.74550	0.49293	130463
3	2309930	1	39	53930	0.12204	0.75853	0.50540	130262
4	2309930	1	39	51068	0.11949	0.77156	0.52307	131338
5	2309930	1	39	48026	0.11285	0.79091	0.53973	131920
6	2309930	1	39	46338	0.10552	0.81001	0.55540	133507
2309930		6						
Chicago								
1	4818990	1	149	29243	0.23637	0.53275	0.50588	60607
2	4818990	1	149	28214	0.23974	0.54866	0.53117	62135
3	4818990	1	149	28315	0.21447	0.59219	0.52589	61931
4	4818990	1	149	26007	0.20699	0.61601	0.53906	59090
5	4818990	1	149	27258	0.21607	0.62175	0.57124	66587
6	4818990	1	149	27127	0.21684	0.62082	0.57186	67445
4818990		6						
Philadelphia								
1	3212000	1	53	28323	0.24045	0.53826	0.52074	60754
2	3212000	1	53	26554	0.23731	0.57401	0.55707	61806
3	3212000	1	53	22920	0.24447	0.59707	0.60674	60240
4	3212000	1	53	22299	0.25688	0.59382	0.63244	63129
5	3212000	1	53	19853	0.27960	0.57955	0.66500	62217
6	3212000	1	53	17342	0.30630	0.55156	0.68304	58070
3212000		6						
Detroit								
1	5323640	1	83	27334	0.03081	0.90163	0.31319	46045
2	5323640	1	83	27869	0.04080	0.87212	0.31909	47667
3	5323640	1	83	24760	0.09676	0.69556	0.31784	42858
4	5323640	1	83	23516	0.10329	0.67939	0.32216	41821
5	5323640	1	83	22606	0.12095	0.65696	0.35257	42564
6	5323640	1	83	20609	0.12975	0.65982	0.38140	41405
5323640		6						
Houston								
1	3000090	1	18	14269	0.25927	0.57539	0.61062	36645
2	3000090	1	18	13487	0.27083	0.55674	0.61099	34670
3	3000090	1	18	13108	0.28031	0.55021	0.62320	34788
4	3000090	1	18	12965	0.29653	0.55047	0.65963	38091
5	3000090	1	18	12239	0.28769	0.57499	0.67691	37881
6	3000090	1	18	11526	0.30630	0.56453	0.70338	39019
3000090		6						
Baltimore								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	5316230	1	47	22362	0.02605	0.90608	0.27740	33472
2	5316230	1	47	22744	0.02536	0.90765	0.27466	34581
3	5316230	1	47	23081	0.02751	0.90941	0.30367	36266
4	5316230	1	47	22481	0.13459	0.54061	0.29298	35013
5	5316230	1	47	21097	0.15835	0.51187	0.32439	35220
6	5316230	1	47	19797	0.17900	0.48994	0.35093	34830
5316230	6							
Dallas								
1	4504378	1	41	17270	0.09447	0.80491	0.48423	34535
2	4504378	1	41	16115	0.08701	0.82616	0.50054	33578
3	4504378	1	41	14370	0.09217	0.83822	0.56970	34962
4	4504378	1	41	13709	0.09084	0.83513	0.55094	32114
5	4504378	1	41	13597	0.09875	0.83375	0.59397	35135
6	4504378	1	41	12709	0.10629	0.82013	0.59095	32737
4504378	6							
Cleveland								
1	5202940	1	118	23108	0.02179	0.95044	0.43957	41322
2	5202940	1	118	24690	0.03535	0.92423	0.46650	46420
3	5202940	1	118	26350	0.06267	0.86170	0.45317	48362
4	5202940	1	118	25936	0.08113	0.82727	0.46969	49077
5	5202940	1	118	23029	0.11018	0.76716	0.47322	43891
6	5202940	1	118	13935	0.36309	0.37515	0.58109	33425
5202940	6							
Memphis								
1	5909600	1	122	24986	0.05977	0.69202	0.19407	31917
2	5909600	1	122	26661	0.06910	0.65240	0.19880	34290
3	5909600	1	122	25071	0.07758	0.63183	0.21072	32973
4	5909600	1	122	24684	0.07554	0.67286	0.23090	33556
5	5909600	1	122	23688	0.08026	0.67087	0.24385	32840
6	5909600	1	122	22698	0.09182	0.64321	0.25736	32208
5909600	6							
Milwaukee								
1	1434320	1	176	20198	0.04284	0.53083	0.09130	25432
2	1434320	1	176	20264	0.04516	0.51399	0.09293	25353
3	1434320	1	176	21046	0.05411	0.45520	0.09932	26451
4	1434320	1	176	21020	0.05805	0.40946	0.09831	26305
5	1434320	1	176	20525	0.06757	0.42749	0.11803	26722
6	1434320	1	176	19708	0.06802	0.43011	0.11937	25845
1434320	6							
San Diego								
1	4504380	1	45	15221	0.16730	0.35456	0.25920	20617
2	4504380	1	45	14851	0.16283	0.38177	0.26338	20279
3	4504380	1	45	15052	0.17281	0.37432	0.27619	20931
4	4504380	1	45	15755	0.16860	0.42355	0.29248	22453
5	4504380	1	45	15628	0.17147	0.44604	0.30953	22780
6	4504380	1	45	15012	0.17712	0.44548	0.31941	22169
4504380	6							
Columbus								
1	1900870	1	198	17817	0.03994	0.73882	0.15290	23080
2	1900870	1	198	17262	0.06029	0.58469	0.14517	22263
3	1900870	1	198	18170	0.07855	0.46970	0.14813	23425
4	1900870	1	198	17270	0.15855	0.01034	0.16020	22303
5	1900870	1	198	18655	0.16314	0.00851	0.16454	24547
6	1900870	1	198	18888	0.16380	0.01884	0.16694	24865
1900870	6							
Tampa								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	3529280	1	170	10417	0.13955	0.75050	0.55932	23818
2	3529280	1	170	10005	0.14938	0.74220	0.57943	24041
3	3529280	1	170	9786	0.15071	0.75044	0.60393	25013
4	3529280	1	170	9502	0.14144	0.77330	0.62392	25641
5	3529280	1	170	9237	0.14226	0.78501	0.66170	27653
6	3529280	1	170	8763	0.13277	0.80149	0.66883	26829
3529280	6							
St. Louis								
1	2801170	1	134	8334	0.19234	0.66780	0.57900	20653
2	2801170	1	134	7863	0.21446	0.62485	0.57167	19191
3	2801170	1	134	7876	0.23865	0.61629	0.62194	21634
4	2801170	1	134	7162	0.26233	0.59059	0.64075	20810
5	2801170	1	134	6864	0.28430	0.58128	0.67898	22419
6	2801170	1	134	6216	0.29387	0.58338	0.70538	22225
2801170	6							
New Orleans								
1	2404770	1	86	18807	0.19710	0.38808	0.32210	27743
2	2404770	1	86	18408	0.21394	0.36455	0.33668	27887
3	2404770	1	86	17360	0.24534	0.28011	0.34081	26525
4	2404770	1	86	16863	0.28980	0.21671	0.36999	26947
5	2404770	1	86	15900	0.31653	0.18924	0.39041	26321
6	2404770	1	86	14650	0.34309	0.18050	0.41866	25412
2404770	6							
Indianapolis								
1	3102790	1	27	15738	0.12487	0.34589	0.19091	20303
2	3102790	1	27	15252	0.12429	0.37195	0.19791	19969
3	3102790	1	27	14685	0.13611	0.41682	0.23339	20309
4	3102790	1	27	14069	0.13421	0.49153	0.26394	20402
5	3102790	1	27	13977	0.13432	0.51638	0.27774	20919
6	3102790	1	27	13346	0.12471	0.56260	0.28512	20574
3102790	6							
Boston								
1	2000120	1	13	15004	0.12349	0.78406	0.57188	35084
2	2000120	1	13	13857	0.15453	0.74325	0.60189	34852
3	2000120	1	13	11690	0.23690	0.63931	0.65681	34092
4	2000120	1	13	9946	0.27229	0.60986	0.69793	33026
5	2000120	1	13	7810	0.32939	0.56356	0.75473	32168
6	2000120	1	13	5163	0.43635	0.46688	0.81848	28906
2000120	6							
Atlanta								
1	1503360	1	51	17942	0.04379	0.58045	0.10438	23586
2	1503360	1	51	16969	0.06005	0.45431	0.11005	22617
3	1503360	1	51	17224	0.08393	0.28914	0.11806	24436
4	1503360	1	51	15446	0.09945	0.20985	0.12586	21842
5	1503360	1	51	14161	0.09699	0.36875	0.15364	20847
6	1503360	1	51	13441	0.10283	0.33578	0.15481	19940
1503360	6							
Denver								
1	4100060	1	5	11326	0.01244	0.36357	0.01955	18156
2	4100060	1	5	11797	0.01330	0.34062	0.02016	18747
3	4100060	1	5	12578	0.01260	0.41342	0.02149	20339
4	4100060	1	5	13430	0.01331	0.41832	0.02289	21673
5	4100060	1	5	14123	0.01644	0.27042	0.02253	22769
6	4100060	1	5	13851	0.01668	0.28007	0.02317	22963
4100060	6							
Albuquerque								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	1434410	1	177	9648	0.19811	0.13822	0.22988	20989
2	1434410	1	177	8434	0.19380	0.19687	0.24130	20891
3	1434410	1	177	8161	0.20465	0.20685	0.25802	21529
4	1434410	1	177	7461	0.23250	0.12862	0.26682	20205
5	1434410	1	177	6902	0.24195	0.10223	0.26950	19640
6	1434410	1	177	5988	0.23818	0.11373	0.26875	19215
1434410	6							
San Francisco								
1	4302970	1	37	12276	0.11220	0.57219	0.26225	16690
2	4302970	1	37	12804	0.16008	0.38086	0.25855	17312
3	4302970	1	37	12704	0.25921	0.02014	0.26453	17340
4	4302970	1	37	12795	0.27228	0.02220	0.27847	17801
5	4302970	1	37	12626	0.28246	0.02325	0.28919	17843
6	4302970	1	37	12247	0.29227	0.01424	0.29650	17491
4302970	6							
Charlotte-Mecklenburg								
1	4011340	1	136	4001	0.31357	0.52936	0.66625	13627
2	4011340	1	136	3481	0.31347	0.53807	0.67861	13588
3	4011340	1	136	3040	0.33786	0.51502	0.69664	14168
4	4011340	1	136	2848	0.35393	0.49707	0.70374	15760
5	4011340	1	136	2673	0.31659	0.55856	0.71717	15377
6	4011340	1	136	2385	0.33690	0.53663	0.72707	15004
4011340	6							
Newark								
1	4504375	1	40	11241	0.29579	0.24855	0.39363	18670
2	4504375	1	40	10771	0.29784	0.28237	0.41504	18473
3	4504375	1	40	9447	0.28426	0.34848	0.43631	16848
4	4504375	1	40	8131	0.25187	0.41740	0.43232	14420
5	4504375	1	40	9076	0.29013	0.37609	0.46501	17062
6	4504375	1	40	8934	0.28475	0.40011	0.47467	17231
4504375	6							
Cincinnati								
1	5707710	1	182	20237	0.05253	0.37453	0.08398	23780
2	5707710	1	182	18250	0.05686	0.38486	0.09244	21733
3	5707710	1	182	16685	0.06002	0.46490	0.11216	20293
4	5707710	1	182	17122	0.07251	0.36912	0.11493	21013
6	5707710	1	182	14920	0.08145	0.40671	0.13728	19216
5707710	5							
Seattle								
1	5338730	1	174	5847	0.09208	0.24108	0.12134	18626
2	5338730	1	174	5742	0.14990	-0.00709	0.14383	17931
3	5338730	1	174	5507	0.18314	-0.03440	0.15404	17936
4	5338730	1	174	4933	0.19518	-0.04303	0.15900	17554
5	5338730	1	174	4818	0.19380	-0.03311	0.16619	17227
6	5338730	1	174	4083	0.21860	-0.04692	0.18013	16333
5338730	6							
San Antonio								
1	4630240	1	205	13924	0.03833	0.61409	0.09932	16140
2	4630240	1	205	14172	0.03990	0.62608	0.10669	16505
3	4630240	1	205	13866	0.04495	0.61290	0.11611	16596
4	4630240	1	205	13991	0.05892	0.52218	0.12330	16715
5	4630240	1	205	13258	0.06600	0.51570	0.13628	16121
6	4630240	1	205	12462	0.10027	0.29943	0.14312	15288
4630240	6							
Tulsa								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4819170	1	152	16006	0.15703	0.52964	0.33384	24173
2	4819170	1	152	15746	0.16674	0.49880	0.33269	23659
3	4819170	1	152	15344	0.17939	0.48484	0.34823	23614
4	4819170	1	152	14902	0.19436	0.46130	0.36079	23429
5	4819170	1	152	15045	0.20655	0.43288	0.36421	23797
6	4819170	1	152	15277	0.20671	0.41988	0.35633	23846
4819170	6							
Pittsburgh								
1	4710050	1	155	22653	0.05942	0.15016	0.06992	25000
2	4710050	1	155	22496	0.06171	0.14363	0.07206	24992
3	4710050	1	155	21748	0.07039	0.13712	0.08158	24419
4	4710050	1	155	20097	0.07460	0.14649	0.08740	22735
5	4710050	1	155	19298	0.07923	0.15048	0.09326	22046
6	4710050	1	155	18116	0.08644	0.15747	0.10260	20926
4710050	6							
Portland								
1	2800540	1	19	11676	0.02201	0.93625	0.34526	17888
2	2800540	1	19	12696	0.02933	0.91226	0.33426	19117
3	2800540	1	19	11828	0.14404	0.59898	0.35918	18517
4	2800540	1	19	11872	0.14911	0.58846	0.36234	18698
5	2800540	1	19	11701	0.14673	0.59633	0.36349	18534
6	2800540	1	19	11046	0.14895	0.60438	0.37651	17949
2800540	6							
E. Baton Rouge								
1	1002370	1	124	17387	0.03736	0.90292	0.38484	28264
2	1002370	1	124	16235	0.12237	0.68726	0.39129	26671
3	1002370	1	124	14977	0.19467	0.45625	0.35801	23357
4	1002370	1	124	14073	0.27393	0.33280	0.41057	23935
5	1002370	1	124	14826	0.25906	0.34453	0.39523	24558
6	1002370	1	124	14430	0.26908	0.35356	0.41625	24740
1002370	6							
Mobile								
1	1428050	1	177	4045	0.29042	0.44498	0.52326	12573
2	1428050	1	177	3521	0.30942	0.43621	0.54881	11975
3	1428050	1	177	3357	0.31176	0.44686	0.56362	12008
4	1428050	1	177	3328	0.33029	0.40517	0.55527	12457
5	1428050	1	177	2855	0.34200	0.42914	0.59910	12008
6	1428050	1	177	2498	0.34568	0.43721	0.61423	11556
1428050	6							
Oakland								
1	3516400	1	93	10603	0.15297	0.64240	0.42776	18529
2	3516400	1	93	9861	0.14407	0.68766	0.46127	18304
3	3516400	1	93	9160	0.13481	0.72372	0.48795	17889
4	3516400	1	93	8860	0.11994	0.77172	0.52539	18668
5	3516400	1	93	8325	0.12745	0.76600	0.54468	18284
6	3516400	1	93	7361	0.11401	0.79770	0.56358	18567
3516400	6							
Kansas City MO								
1	4205850	1	31	13397	0.17422	0.37639	0.27936	18943
2	4205850	1	31	13016	0.18621	0.36833	0.29479	18956
3	4205850	1	31	12826	0.20324	0.33935	0.30764	19019
4	4205850	1	31	12319	0.23440	0.28410	0.32742	18878
5	4205850	1	31	11278	0.24528	0.28522	0.34316	18015
6	4205850	1	31	11043	0.24303	0.32000	0.35739	18025
4205850	6							
Buffalo								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	1422500	1	110	15334	0.03158	0.24606	0.04188	16952
2	1422500	1	110	15088	0.03429	0.27277	0.04716	16816
3	1422500	1	110	14305	0.03698	0.29233	0.05226	16227
4	1422500	1	110	13835	0.04438	0.35083	0.06836	16178
5	1422500	1	110	12916	0.05623	0.26728	0.07674	15324
6	1422500	1	110	12365	0.06504	0.23104	0.08458	15087
1422500	6							
Long Beach								
1	3774820	1	143	11772	0.09018	0.34059	0.13677	13907
2	3774820	1	143	10414	0.09585	0.40000	0.15975	12707
3	3774820	1	143	10722	0.09375	0.42640	0.16344	13106
4	3774820	1	143	11042	0.09916	0.40926	0.16785	13631
5	3774820	1	143	11017	0.10570	0.39951	0.17602	13777
6	3774820	1	143	10616	0.11479	0.36730	0.18143	13388
3774820	6							
Omaha								
1	1208760	1	204	11623	0.02187	0.45033	0.03978	16288
2	1208760	1	204	12402	0.02155	0.46064	0.03996	17292
1208760	2							
Tucson								
1	5318300	1	57	8221	0.02177	0.03964	0.02266	18796
2	5318300	1	57	7803	0.02769	-0.00428	0.02351	18462
3	5318300	1	57	7762	0.02361	-0.00284	0.02083	18432
4	5318300	1	57	7924	0.02751	-0.00438	0.02323	18899
5	5318300	1	57	7769	0.03102	-0.00672	0.02446	19172
6	5318300	1	57	7949	0.03538	-0.00939	0.02623	20051
5318300	6							
El Paso								
1	4504490	1	201	13363	0.10297	0.51871	0.21395	17457
2	4504490	1	201	12173	0.11261	0.53216	0.24070	16531
3	4504490	1	201	13925	0.11120	0.49664	0.22092	18491
4	4504490	1	201	14197	0.12081	0.50601	0.24456	19496
5	4504490	1	201	14300	0.12836	0.45555	0.23576	19431
6	4504490	1	201	14214	0.12959	0.47804	0.24827	19640
4504490	6							
Toledo								
1	3321240	1	123	17254	0.04607	0.11375	0.05199	18562
2	3321240	1	123	15435	0.04932	0.14344	0.05758	16794
3	3321240	1	123	15190	0.05838	0.13404	0.06742	16716
4	3321240	1	123	14910	0.06105	0.14731	0.07160	16537
5	3321240	1	123	14133	0.07249	0.15449	0.08573	16062
6	3321240	1	123	13421	0.08189	0.16042	0.09754	15542
3321240	6							
Minneapolis								
1	4622770	1	142	13980	0.05809	0.69494	0.19041	17268
2	4622770	1	142	13329	0.09860	0.55531	0.22172	17748
3	4622770	1	142	12123	0.07920	0.63493	0.21694	16198
4	4622770	1	142	11809	0.09019	0.61899	0.23673	16196
5	4622770	1	142	12578	0.21544	0.17699	0.26177	17603
6	4622770	1	142	11819	0.23727	0.09947	0.26348	16616
4622770	6							
Oklahoma City								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	1000390	1	24	10011	0.09217	0.80661	0.47660	19127
2	1000390	1	24	9999	0.10112	0.79441	0.49184	19677
3	1000390	1	24	9088	0.24025	0.54066	0.52304	19054
4	1000390	1	24	8638	0.25887	0.52614	0.54631	19068
5	1000390	1	24	7847	0.26091	0.54842	0.57778	18630
6	1000390	1	24	7150	0.26740	0.55470	0.60049	17907
1000390	6							
Birmingham								
1	2612990	1	216	12175	0.08802	0.12272	0.10033	13824
2	2612990	1	216	12518	0.10365	0.04919	0.10901	14393
3	2612990	1	216	12062	0.11650	0.01783	0.11862	14062
4	2612990	1	216	11817	0.11613	0.00443	0.11664	13760
5	2612990	1	216	11258	0.12686	0.00105	0.12699	13324
6	2612990	1	216	10792	0.14651	0.00308	0.14697	13071
2612990	6							
Wichita								
1	5002310	1	78	12908	0.04290	0.83097	0.25379	17298
2	5002310	1	78	11917	0.04908	0.76231	0.20649	15018
3	5002310	1	78	12647	0.18924	0.03367	0.19583	15743
4	5002310	1	78	13906	0.20044	0.01584	0.20367	17504
5	5002310	1	78	13620	0.19683	0.01311	0.19945	17062
6	5002310	1	78	13294	0.20262	0.01495	0.20570	16816
5002310	6							
Greenville								
1	5308940	1	16	9623	0.04354	0.65721	0.12701	13282
2	5308940	1	16	9861	0.04150	0.69510	0.13611	13812
3	5308940	1	16	10371	0.04759	0.66720	0.14301	14684
4	5308940	1	16	10842	0.09618	0.23744	0.12612	15025
5	5308940	1	16	10700	0.09854	0.20785	0.12440	15185
6	5308940	1	16	11975	0.10849	0.14984	0.12762	17059
5308940	6							
Austin								
1	1414550	1	70	9316	0.02347	0.74316	0.09138	12465
2	1414550	1	70	9162	0.02687	0.65716	0.07836	11932
3	1414550	1	70	9251	0.03620	0.56773	0.08373	12241
4	1414550	1	70	8873	0.04135	0.50400	0.08337	11983
5	1414550	1	70	8637	0.04449	0.48132	0.08578	11809
6	1414550	1	70	8300	0.04750	0.46774	0.08924	11464
1414550	6							
Fresno								
1	4504348	1	2	9481	0.14783	0.33720	0.22303	12218
2	4504348	1	2	9033	0.14504	0.37763	0.23304	11805
3	4504348	1	2	8984	0.15410	0.35929	0.24052	11862
4	4504348	1	2	9104	0.15613	0.38608	0.25432	12260
5	4504348	1	2	9519	0.16158	0.38181	0.26137	12924
6	4504348	1	2	9145	0.16148	0.38864	0.26414	12467
4504348	6							
Akron								
1	2800300	1	183	8494	0.01818	0.96831	0.57359	20049
2	2800300	1	183	8418	0.04902	0.91283	0.56237	19391
3	2800300	1	183	7985	0.26472	0.44789	0.47947	15444
4	2800300	1	183	8114	0.28870	0.37853	0.46454	15342
5	2800300	1	183	8226	0.29567	0.37949	0.47649	15866
6	2800300	1	183	8009	0.33374	0.28060	0.46392	15065
2800300	6							
Shreveport								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4504384	1	49	10788	0.07097	0.79243	0.34192	16457
2	4504384	1	49	10554	0.09415	0.72630	0.34397	16164
3	4504384	1	49	10071	0.12160	0.66900	0.36739	16024
4	4504384	1	49	10039	0.14374	0.62337	0.38165	16363
5	4504384	1	49	9500	0.17328	0.56839	0.40147	16051
6	4504384	1	49	8598	0.23049	0.46124	0.42781	15112
4504384	6							
Dayton								
1	1414880	1	9	12707	0.00128	0.06230	0.00136	13950
3	1414880	1	9	13455	0.00119	0.05952	0.00126	15049
4	1414880	1	9	12913	0.00233	0.08067	0.00253	14617
5	1414880	1	9	12935	0.00303	0.08793	0.00332	14739
6	1414880	1	9	12777	0.00400	0.08245	0.00436	14667
1414880	5							
Garden Grove								
1	2703600	1	111	6766	0.19428	0.51660	0.40189	11319
2	2703600	1	111	6795	0.16451	0.58698	0.39832	11310
3	2703600	1	111	6464	0.18681	0.57773	0.44239	11612
4	2703600	1	111	6334	0.18175	0.61940	0.47754	12133
5	2703600	1	111	5792	0.19318	0.61901	0.50706	11754
6	2703600	1	111	5552	0.21514	0.59969	0.53743	12024
2703600	6							
Louisville								
1	1433840	1	167	7466	0.10698	0.06061	0.11388	11003
2	1433840	1	167	7314	0.12036	0.05657	0.12757	11029
3	1433840	1	167	7100	0.13188	0.05652	0.13978	10953
4	1433840	1	167	6608	0.14410	0.04870	0.15148	10457
5	1433840	1	167	6651	0.15985	0.06186	0.17039	10828
6	1433840	1	167	6858	0.18219	0.04143	0.19006	11575
1433840	6							
Sacramento								
1	5602670	1	138	6978	0.13261	0.61964	0.34865	10879
2	5602670	1	138	7366	0.17799	0.52169	0.37211	11862
3	5602670	1	138	6517	0.32558	0.21334	0.41387	11274
4	5602670	1	138	6291	0.41674	0.02582	0.42779	11183
5	5602670	1	138	6080	0.43718	0.00826	0.44082	11059
6	5602670	1	138	5204	0.44850	0.00568	0.45107	9666
5602670	6							
Norfolk								
1	3333840	1	123	11978	0.04301	0.17112	0.05189	13048
2	3333840	1	123	11571	0.04362	0.19789	0.05439	12742
3	3333840	1	123	14189	0.05067	0.16775	0.06088	15835
4	3333840	1	123	11699	0.04287	0.22054	0.05499	12983
5	3333840	1	123	11354	0.04586	0.24352	0.06062	12702
6	3333840	1	123	11310	0.05126	0.27212	0.07043	12793
3333840	6							
St. Paul								
1	4301500	1	77	7917	0.08311	0.75107	0.33387	11909
2	4301500	1	77	8118	0.07550	0.73965	0.28998	11449
3	4301500	1	77	8434	0.14701	0.41698	0.25215	11299
4	4301500	1	77	5659	0.26987	0.02783	0.27759	7846
5	4301500	1	77	5551	0.27343	0.03466	0.28325	7753
6	4301500	1	77	5490	0.27674	0.04015	0.28832	7724
4301500	6							
Winston-Salem/Forsythe								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	5315270	1	46	5389	0.01307	0.70745	0.04467	9671
2	5315270	1	46	5571	0.01304	0.72026	0.04663	9908
3	5315270	1	46	5333	0.01529	0.71396	0.05345	10085
4	5315270	1	46	5224	0.01889	0.63986	0.05244	10069
5	5315270	1	46	5008	0.02581	0.50447	0.05209	10136
6	5315270	1	46	4834	0.02813	0.48954	0.05510	10108
5315270	6							
Corpus Christi								
1	2403870	1	73	5372	0.13575	0.75886	0.56293	15723
2	2403870	1	73	5134	0.16773	0.67274	0.51253	13771
3	2403870	1	73	4930	0.15330	0.70579	0.52105	13657
4	2403870	1	73	3563	0.17332	0.71809	0.61679	12664
5	2403870	1	73	3319	0.15828	0.75799	0.65402	12709
6	2403870	1	73	2765	0.18670	0.73350	0.70057	12527
2403870	6							
Gary								
1	5603240	1	163	3755	0.17791	0.70387	0.60081	9434
2	5603240	1	163	3493	0.19702	0.69010	0.63576	9664
3	5603240	1	163	4129	0.45676	0.26455	0.62105	10991
4	5603240	1	163	3347	0.61026	0.10283	0.68021	10682
5	5603240	1	163	3379	0.62563	0.08199	0.68150	10810
6	5603240	1	163	2786	0.65266	0.08830	0.71587	9918
5603240	6							
Richmond								
1	4224750	1	165	11942	0.18287	0.22564	0.23616	16180
2	4224750	1	165	11275	0.19465	0.25155	0.26007	15884
3	4224750	1	165	10524	0.21766	0.26214	0.29499	15787
4	4224750	1	165	7500	0.26243	0.11120	0.29527	11366
5	4224750	1	165	9160	0.21998	0.26770	0.30040	14181
6	4224750	1	165	8634	0.23999	0.26732	0.32755	14117
4224750	6							
Rochester								
1	2403630	1	68	7277	0.06249	0.35595	0.09703	8142
2	2403630	1	68	7677	0.06462	0.35587	0.10032	8622
3	2403630	1	68	7660	0.07317	0.36314	0.11489	8730
4	2403630	1	68	8094	0.11938	0.00212	0.11964	9303
5	2403630	1	68	7690	0.13081	0.00563	0.13155	9061
6	2403630	1	68	7609	0.14313	0.00640	0.14406	9059
2403630	6							
Ft. Wayne								
1	2508970	1	52	8608	0.06110	0.05448	0.08462	9301
2	2508970	1	52	8421	0.05941	0.07675	0.06435	9091
3	2508970	1	52	8449	0.06352	0.08587	0.06949	9153
4	2508970	1	52	8677	0.06203	0.08158	0.06754	9402
5	2508970	1	52	7463	0.04964	0.12001	0.05641	7995
6	2508970	1	52	7362	0.05172	0.12286	0.05896	7920
2508970	6							
Des Moines								
1	2334510	1	166	8366	0.05609	0.06947	0.06028	8975
2	2334510	1	166	10302	0.06477	0.10706	0.07254	11167
3	2334510	1	166	10436	0.09143	0.07302	0.09863	11710
4	2334510	1	166	10537	0.09002	0.07913	0.09776	11835
5	2334510	1	166	10358	0.09751	0.09647	0.10792	11805
6	2334510	1	166	10149	0.10729	0.07590	0.11610	11671
2334510	6							
Rockford								

Year	School District Number	Metro. Status	SMSA	Number Whites	S_{wb}	R_{wb}	Prop. Black	Number Students
1	4007830	1	90	5579	0.22874	0.23965	0.30084	8975
2	4007830	1	90	5185	0.23057	0.28005	0.32026	8899
3	4007830	1	90	4744	0.25163	0.29319	0.35600	8910
4	4007830	1	90	4720	0.26566	0.28809	0.37316	9532
5	4007830	1	90	4201	0.27283	0.31123	0.39612	9121
6	4007830	1	90	3689	0.26195	0.38572	0.42644	8904
4007830	6							
Jersey City								
1	1402640	1	9	14211	0.00032	0.02739	0.00032	15430
3	1402640	1	9	15582	0.00091	0.01461	0.00092	17343
4	1402640	1	9	15731	0.00147	-0.00000	0.00147	17661
5	1402640	1	9	16318	0.00197	0.00156	0.00197	18251
6	1402640	1	9	13088	0.00212	-0.00001	0.00211	14681
1402640	5							
Anaheim								
1	1434590	1	178	4918	0.00842	0.37191	0.01340	6938
2	1434590	1	178	5093	0.00774	0.43632	0.01374	7134
3	1434590	1	178	5222	0.00847	0.45567	0.01557	7323
4	1434590	1	178	5777	0.01101	0.36931	0.01746	8419
5	1434590	1	178	5831	0.01121	0.27387	0.01544	8615
6	1434590	1	178	5848	0.01118	0.23737	0.01465	8462
1434590	6							
San Jose								
1	1002430	1	126	5071	0.04714	0.90224	0.48223	9794
2	1002430	1	126	5212	0.10282	0.77330	0.45355	9538
3	1002430	1	126	4778	0.26929	0.26060	0.36420	7515
4	1002430	1	126	4842	0.28096	0.30071	0.40178	8094
5	1002430	1	126	4831	0.29187	0.29305	0.41286	8228
6	1002430	1	126	4770	0.29825	0.28794	0.41886	8220
1002430	6							
Montgomery ALA								
1	5346680	1	57	3639	0.01875	0.28982	0.02640	7690
2	5346680	1	57	3827	0.02300	0.25222	0.03075	7804
3	5346680	1	57	3879	0.02458	0.18359	0.03011	8802
4	5346680	1	57	3890	0.02829	0.06553	0.03027	9415
5	5346680	1	57	4089	0.03358	-0.00144	0.03218	10161
6	5346680	1	57	4002	0.03592	-0.00608	0.03002	10925
5346680	6							
Yaleta								
1	1503060	1	42	5188	0.03667	0.10002	0.04075	5816
2	1503060	1	42	5564	0.03765	0.12485	0.04302	6299
3	1503060	1	42	5932	0.04761	0.02891	0.04903	6792
4	1503060	1	42	6319	0.05287	0.01542	0.05370	7225
5	1503060	1	42	6809	0.05870	0.00578	0.05904	7842
6	1503060	1	42	6819	0.05816	0.00045	0.05819	7957
1503060	6							
Colorado Springs								