Integrating Neighborhoods, Segregating Schools: The Retreat From School Desegregation in the South, 1990-2000

Sean F. Reardon
Pennsylvania State University

John T. Yun
Harvard University

Abstract

Public school segregation between white and black students in Southern states increased slightly in the 1990s, reversing several decades of stable integration patterns in much of the South. This increase in school segregation came during a decade during which residential segregation in the South declined rather substantially. Seen in the context of these decreases in residential segregation, the increase in school segregation represents a substantial change in the effectiveness of public school desegregation efforts. In 1990, the public schools in metropolitan area counties were, on average, 40% less segregated than the housing patterns in their corresponding county—school systems were able to ameliorate two-fifths of the segregative effects of housing patterns. By 2000, however, public schools were only 27% less segregated than their local housing markets, a one-third reduction in the effectiveness of desegregation efforts.

Moreover, despite the trends toward decreasing residential segregation and increasing school segregation, patterns of 'white flight' to private schools do not appear to have lessened since the 1970s. In 1980, 1990, and 1998, county-level white private school enrollment rates were strongly and tightly linked to the proportion of the county school-age population who were black: white private school enrollment rates are extremely high in predominantly black counties, despite decades of stable integration in the public schools.

This paper was prepared for the conference on the Resegregation of Southern Schools, to be held at the University of North Carolina, Chapel Hill, August 30, 2002, and sponsored by the Civil Rights Project at Harvard University, The University of North Carolina Center for Civil Rights, the *North Carolina Law Review*, and the Thurgood Marshall School of Law at Texas Southern University. This paper is a preliminary draft; please address comments and correspondence to Sean F. Reardon (*sean@pop.psu.edu*), 310F Rackley Building, Department of Education Policy Studies, Pennsylvania State University, University Park, PA 16802; (814.865.2584). This work was supported in part by the College of Education, Pennsylvania State University. We thank Steve Graham of the Population Research Institute at PSU for expert assistance assembling the data files for this paper.

Integrating Neighborhoods, Segregating Schools: The Retreat From School Desegregation in the South, 1990-2000

Sean F. Reardon
John T. Yun

After decades of being the most successfully integrated schools in the United States, the schools of the South appear headed slowly toward resegregation. There are two possible primary causes of this trend, each with different policy implications. One possibility is that public schools are becoming more segregated as a result of increasingly segregated residential patterns, particularly between-district segregation patterns. If white and black families live increasingly in separate school districts, within-district integration policies will be increasingly less effective in producing racially integrated schools, no matter how strongly they are enforced. Although white-black residential segregation has declined gradually nationwide since 1980 (Lewis Mumford Center for Comparative Urban and Regional Research 2001), it is not clear whether this trend is true in the South as well, nor is it clear whether between-district residential segregation is declining at the same time as overall residential segregation. A more detailed examination of changes in residential segregation patterns in the South is necessary to determine whether changes in residential segregation are a cause of increasing public school segregation.

A second possibility, however, is that public schools are becoming more segregated, not as a result of changing residential patterns, but rather as a result of a retreat from active efforts to integrate the schools. A set of recent rulings by the Supreme Court has enabled many school systems in the South to weaken or abandon their desegregation plans, which is likely to result in a wholesale trend toward resegregation in many school districts. In school districts in Charlotte NC, Tampa-St. Petersburg FL, and Greensboro NC, for example,

public school segregation was low in 1990—the result of effective desegregation plans—but rose sharply in the 1990s as a result of a retreat from desegregation efforts (Logan, Stowell, and Oakley 2002). With the *Dowell* and *Freeman* decisions in the early 1990s, the Supreme Court made it far easier for districts to abandon desegregation plans, so if changes in segregation are due to a retreat from active desegregation efforts, we can expect more rapid increases in public school segregation in the future, as more districts are declared unitary and released from court oversight.

A third possible factor shaping changes in public school segregation levels is changes in patterns of white private school enrollment. 'White flight' to the private sector in the 1970s made effective integration of the public schools in many districts difficult, but it is not clear whether 'white flight' still plays an important role in shaping public school enrollment patterns. Although it is unlikely that changes in private school enrollment patterns are a primary cause of changes in public school segregation levels, they nonetheless may still be an important factor shaping overall segregation patterns in many areas, since white private school enrollment levels remain highly correlated with black population percentages (Reardon and Yun 2002).

In this paper we examine evidence on these three interrelated factors: patterns of public school segregation, patterns of residential segregation, and patterns of private school enrollment. These three sets of patterns are each the result of a host of complicated and intertwined factors, including judicial, political, and policy trends, individual attitudes and their changes over time, structural aspects of school systems, demographic trends, labor and housing markets, and economic trends. We cannot, of course, fully untangle the associations among the three trends, but we can examine the extent to which residential and school segregation are related in the 1990s. This is a particularly important relationship to

understand, given the Supreme Court's repeated insistence that states and their public school systems cannot be held responsible for school segregation patterns that result from segregated residential patterns that are the result of the private choices of individuals. If, then, we find that increasing school segregation is linked to increasing residential segregation, that suggests that there may be little recourse in the courts to oppose the resegregation of schools. If however, we find that increasing segregation in public schools is not a result of increasing residential segregation, but rather a result of school action (or inaction) in student assignment policies, there may be more leverage in the courts.

The paper is organized in four parts. First, we examine patterns and trends of residential segregation in the South from 1990 to 2000. We examine white/black and white/Hispanic segregation here. Second, we examine patterns and trends of public school segregation in the South from 1990 to 2000. Although much of this material has been presented in more detail elsewhere (Yun and Reardon 2002), we repeat it here for context. Third, and most importantly, we examine in detail the relationship between residential and public school segregation in the South from 1990 to 2000. Here we focus on white/black segregation patterns, since white/black segregation is a much more ubiquitous pattern in the South. Finally, we examine trends in white private school enrollment rates in the South from 1970-1998. Although this section does not address the relationship between public school segregation and private school enrollments explicitly, it provides useful contextualizing information that reveals the continuing importance of private school enrollments in shaping public school patterns.

Data and Measures

We use several primary sources of data for this report. For patterns of residential segregation, we use tract-level race/ethnic counts from the 1990 and 2000 Censuses. In 1990, we use counts of the non-Hispanic white population (referred to as "white" in this paper), the non-Hispanic black population ("black"), the Hispanic population ("Hispanic"), and all others combined ("other"). In 2000, we use the same categories, with the exception that we classify all those falling into the "two or more races" category as "other."[1]

For patterns of public school enrollment and segregation, we use data from the 1989-90 and 1999-2000 Common Core of Data Public Elementary/Secondary School Universe Survey Data Files (National Center for Education Statistics 2002). The Common Core of Data (CCD) contains race/ethnic enrollment counts for virtually all schools in the country. Because Georgia and Virginia did not report race/ethnic enrollment data in 1989-90, for these states we use data from the 1993-94 school year. Tennessee data for 1999-2000 were obtained from the State of Tennessee's web site, since Tennessee data were not included in the 1999-2000 CCD. For both 1989-90 and 1999-2000, the Common Core uses race/ethnic classifications comparable to the 1990 Census.

For patterns of private school enrollment data in 1990 we use 1990 Census county-level race/ethnic counts of students enrolled in public and private schools. Note that these counts are based on county residence—they give the number of students, among those living in a county, enrolled in public and private schools. Because the comparable Census tabulations are not yet available for Census 2000 (they will be available in Fall 2002), we use race/ethnic public and private school enrollment counts from the 1997-98 Common Core of Data and its private school counterpart, the 1997-98 Private School Survey, aggregated by

[1] This is not an ideal treatment of the "two or more race" respondents, but probably influences the results only slightly, since there are relatively few such respondents (1.3% of those in the South).

county (National Center for Education Statistics 2000b; National Center for Education Statistics 2002). These counts are based on school enrollment—they give the number of students enrolled in public and private schools that are located within a county. Since students may cross county lines to attend private schools (and very occasionally public schools as well), counts based on residence are not strictly comparable to counts based on school location. Once the 2000 Census tabulations of race/ethnicity by school type are released, we will be able to obtain more comparable figures for private school enrollment patterns.

The states included in the data reported here are those included in the Census definition of the South.[2] We use definitions of metropolitan areas based on the MSA and PMSA definitions from 1993, the year that the definitions were updated based on 1990 Census data.

The measure of segregation we use in this report is an index called the information theory index and referred to as *H*. *H* is a measure of how evenly race/ethnic population groups are distributed among census tracts or schools, just as are more familiar measures of segregation such as the dissimilarity index and the normalized exposure index (Massey and Denton 1988; Reardon and Firebaugh 2002). *H* does not depend on the race/ethnic composition of the population, but only on how evenly population groups are distributed among schools or tracts. It ranges from 0 to 1, with a value of 0 indicating perfect integration—the racial/ethnic proportions are identical in all schools or tracts—and a value of 1 indicating complete segregation—meaning that each school or tract is monoracial.[3] A

[2] These are: Alabama, Arkansas, District of Columbia, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

[3] The information theory index is computed as a measure of the ratio of the average diversity of individual schools or tracts to the diversity of the total population in all schools or tracts combined. Specifically, the diversity is defined as

rough guide to interpreting values of H is shown in Table 1. Note that a change in H of .05 or more in a decade represents a very significant change in segregation levels (one that corresponds roughly to a change of 10 points in the dissimilarity index (Lewis Mumford Center for Comparative Urban and Regional Research 2001; Reardon and Yun 2001).

Table 1: Interpretation of Values of Information Theory Index (H)

	Value of Information Theory Index (H)	Corresponding Values of Dissimilarity Index (D)
Extreme Segregation	0.40-1.00	70-100
High Segregation	0.25-0.40	50-80
Moderate Segregation	0.10-0.25	30-60
Low Segregation	0.00-0.10	0-30

The information theory index H is highly correlated with the dissimilarity index and other measures of evenness; moreover, it typically gives similar results as those of other segregation indices. However, the advantage of the information theory index over other more common indices is threefold: 1) it can be used to measure the segregation among multiple race/ethnic groups in the population; 2) it can be easily decomposed into components representing segregation between and within organizational and geographic units (such as counties or school districts); and 3) it can be easily decomposed into components representing segregation among different race/ethnic classifications (Reardon

$$E = \sum_{m=1}^{M} \pi_m \ln\left(\frac{1}{\pi_m}\right),$$

where π_m is the proportion of group m in the population. From this, H is defined as

$$H = 1 - \sum_{j=1}^{J} \frac{t_j}{T}\frac{E_j}{E},$$

where t_j and E_j are the total size and diversity, respectively, in school or tract j and where T and E are the size and diversity, respectively of the whole population. If all schools or tracts have the same race/ethnic composition as the population, the diversity will be the same in all schools, and H will be 0. If many schools or tracts have substantial overrepresentations of a race/ethnic group, then the average diversity within schools or tracts will be low, and H will be large. For more detail on the properties of the information theory index, see Reardon, Yun, and Eitle (Reardon, Yun, and Eitle 2000) and Reardon and Firebaugh (Reardon and Firebaugh 2002).

and Firebaugh 2002). Since our analyses here require a decomposable segregation index, we use *H* here rather than the more commonly used dissimilarity index, which cannot be similarly decomposed.

Changes in Residential Segregation in the South, 1990-2000

Residential white/black segregation declined in the South from 1990-2000, just as it did elsewhere in the U.S. (Lewis Mumford Center for Comparative Urban and Regional Research 2001; Reardon and Yun 2001). In addition, white/Hispanic residential segregation declined overall in the South from 1990-2000. Table 2 illustrates the changing patterns of segregation in the South as a whole from 1990 to 2000.

The overall levels of black/white residential segregation in the South declined only modestly from 1990-2000, though this modest decline masks two conflicting trends: white/black segregation *between counties* actually increased during the 1990's while segregation *within counties* declined at the same time. The increase in between-county segregation was largely due to increases in the segregation between and within metropolitan areas, rather than changes in the segregation between rural and metropolitan areas or to changes in segregation patterns among rural counties. In contrast, segregation within counties fell, on average, during the 1990s, though within-county segregation still accounted for the majority of white/black segregation in the 2000.

The overall levels of white/Hispanic residential segregation also fell in the 1990s in the South, even more sharply than white/black segregation levels. This decline was wholly attributable to declines in the between-county segregation of whites and Hispanics—Hispanic populations grew dramatically in every state in the South, even in states with relatively few Hispanics in 1990. Nonetheless, in 2000 as in 1990, the bulk of Hispanics in

the South lived in Texas (6.7 million Hispanics; 57% of Southern Hispanics in 2000) and Florida (2.7 million; 24% of Southern Hispanics in 2000), and so white/Hispanic segregation levels reflect primarily between-state differences in Hispanic proportions rather than more localized segregation patterns.

Table 2: Changes in Residential Segregation, South, 1990-2000

	Residential segregation between whites and...					
	Blacks		Hispanics		Non-Whites	
	1990	2000	1990	2000	1990	2000
Total South Segregation (*H*)	.412	.391	.475	.422	.343	.308
Between-County Component						
Portion	.157	.167	.375	.314	.155	.154
Proportion	38.1%	42.7%	78.9%	74.4%	45.2%	50.0%
Within County Component						
Portion	.255	.224	.100	.108	.188	.154
Proportion	61.9%	57.3%	21.1%	25.6%	54.8%	50.0%
Average Within-County Segregation (*H*)						
All Counties	.132	.114	.074	.047	.096	.077
Counties in Large MSAs	.204	.178	.079	.080	.150	.124
Counties in Small MSAs	.227	.188	.093	.070	.169	.133
Rural Counties	.099	.087	.070	.036	.071	.057

Within individual states, black/white residential segregation levels generally declined as well. Segregation levels between blacks and whites in all Southern states were high or extremely high in 1990, and though they declined slightly in all states except Alabama in the 1990s, they remained nonetheless in the high or extremely high range for almost all Southern states in 2000 (Figure 1). Hispanic/white segregation levels, in contrast, were generally in the low to moderate range for all states except those with large Hispanic populations—Texas and Florida (Figure 2). White/Hispanic segregation increased substantially in Arkansas, District of Columbia, Georgia, and Maryland—in each of these places the Hispanic population grew sharply.

Changes in Public School Segregation in the South, 1990-2000

Nationally, public school segregation increased slightly from 1990-2000 (Logan, Stowell, and Oakley 2002; Orfield and Gordon 2001). In the South, segregation between white and black students increased modestly, while segregation between white and Hispanic students decreased substantially (Table 3). As with residential segregation, these trends were driven by very different underlying changes.

White/black public school segregation in the South—as in the rest of the country—is largely attributable to segregation between public school districts; in 1990 and 2000, between-district differences in public school racial compositions accounted for nearly three-quarters of the overall public school segregation in the South. Between 1990 and 2000 both the between- and within-district components of white/black segregation increased slightly.

The patterns and trends of white/black public school segregation differ in a number of important ways from patterns of white/black residential segregation in the South. First, school and residential segregation levels are comparable to one another—and in both cases segregation levels are quite high. Second, while residential segregation has declined in the 1990s, school segregation has increased, although neither trend is particularly strong. Third, white/black school segregation between school districts is much larger than residential white/black segregation between counties. In part, this is because there are far more school districts (roughly 3400) in the South than there are counties (1425); more units allows for greater segregation. Nonetheless, even if we take this into account by computing school segregation measures between counties rather than between districts, the results (not shown) still indicate that between-county school segregation is roughly 40% greater than between-county residential segregation, a situation that would result from white flight to the private

sector in predominantly black counties. To see this, suppose that white families living in predominantly black counties enroll their children in private schools at higher rates than white families in predominantly white counties. Then the public schools in the predominantly black counties will enroll larger black proportions than we would expect based on their county residential population would suggest. This would result in higher levels of between- county school segregation than residential segregation. In fact, this pattern is exactly what happens, as we show later in this paper.

Within individual states, black/white public school segregation levels are moderately high in many states (Figure 3). Segregation is greatest in District of Columbia, Tennessee, Maryland, Arkansas, and Alabama, and least in Delaware, South Carolina, and North Carolina. As in the South as a whole, public school segregation rose modestly in most states during the 1990s, with the largest increases occurring in Alabama, Arkansas, Louisiana, and Maryland.

Unlike white/black segregation, which rose slightly in the 1990s, white/Hispanic public school segregation declined substantially in the 1990s. Nonetheless, white/Hispanic segregation was still quite high in 2000—much higher, in fact than white/black school segregation. The bulk of white/Hispanic segregation is attributable to between-district segregation, largely because Hispanic students are concentrated in just two states, Florida and Texas. Moreover, as with white/black segregation, white/Hispanic school segregation between school districts is much larger than residential white/Hispanic segregation between counties, though the difference is not as great, suggesting less white flight to private schools in predominantly Hispanic counties than in predominantly black counties.

Within individual states, white/Hispanic school segregation is generally only moderately strong. In Florida and Texas, however, white/Hispanic segregation is quite high,

again largely due to segregation between school districts within these states (Figure 4).

Table 3: Changes in Public School Segregation, South, 1990-2000

	Public school segregation between whites and...					
	Blacks		Hispanics		Non-Whites	
	1990	2000	1990	2000	1990	2000
Total School Segregation (*H*)	.379	.400	.581	.520	.348	.354
Between-District						
Portion	.272	.284	.522	.453	.260	.264
Proportion	71.8%	71.0%	89.8%	87.1%	74.7%	74.6%
Within District						
Portion	.107	.116	.059	.067	.088	.090
Proportion	28.2%	29.0%	10.2%	12.9%	25.3%	25.4%
Average Within-District Segregation (*H*)						
All Districts	.049	.053	.058	.047	.040	.037
Districts in Large MSAs	.066	.057	.063	.050	.050	.042
Districts in Small MSAs	.068	.070	.071	.050	.056	.048
Rural Districts	.040	.047	.053	.045	.035	.033

Relationship Between Patterns of Residential and Public School Segregation

The preceding results show that residential segregation between whites and nonwhites has generally declined in the 1990s, while school segregation—at least white/black segregation—has increased slightly. In this section we examine the relationship between these two trends at the more local level. Specifically, we examine whether, and how, local changes in school segregation are related to local changes in residential segregation. If local increases in school segregation are related to local increases in residential segregation, then we can explain the trend toward increasing school segregation as a result of rising local housing segregation—which may occur even as aggregate levels of residential segregation are declining. If, however, local increases in school segregation occur even where there are local decreases in residential segregation, this suggests that a retreat from school integration efforts is causing the increases in school segregation.

We examine the relationship between residential and school segregation at three levels of aggregation—states, metropolitan areas, and counties. Because we do not have residential segregation data tabulated by district, we cannot examine the relationship at this level. For most Southern states (with the exception of Texas and Oklahoma), most school districts comprise entire counties, so that county-level analyses are a good proxy for district-level analyses in all states except Texas and Oklahoma.

State-Level Residential and School Segregation

Figures 5 and 6 illustrate the relationship between changes in school and residential segregation in the Southern states. In Figure 5, most states fall in the second quadrant of the graph, indicating that they experienced declining residential segregation but rising school segregation. In most cases, the state-level changes in both residential and school segregation were small, but the consistency of the pattern indicates a general trend across most states in the South. White/black school segregation rose the most (and residential segregation declined least) in four deep South states: Alabama, Mississippi, Louisiana, and Arkansas.

In Figure 6, showing changes in white/Hispanic residential and school segregation, in contrast, most states fall in the first and third quadrants, indicating a more direct linkage between residential and school segregation. In states with growing white/Hispanic residential segregation, there was a corresponding increase in white/Hispanic school segregation, largely because aggregate Hispanic segregation patterns are due primarily to between-county residential patterns, except in Texas and Florida.

Metropolitan Area Residential and School Segregation

Because state-level patterns of segregation mask more local patterns of residential and school segregation, we next look at the relationship between the residential and school

segregation at the metropolitan area (MSA) level. The South contains 128 MSAs, as defined in 1993 based on 1990 Census data (new definitions of MSAs based on 2000 Census data will be released sometime in 2003). Of these, 17 contained more than a million residents in 1990, and 19 more contain at least 500 thousand residents. The remainder were small metropolitan areas of less than half a million people.

Figure 7 shows a plot of 1990 white/black school segregation levels (on the y-axis) against white/black residential segregation levels (on the x-axis). Recall that values of *H* above .40 are considered extremely segregated, so that the figure shows, first of all, that almost all of the Southern metropolitan areas with the largest black public school student populations in 1990 had extremely high levels of both residential and public school segregation. Second, note that in 1990, many Southern metropolitan areas had far less public school segregation than residential segregation (those MSAs well below the diagonal on the figure)—meaning that the school system had been largely successful in integrating the schools, despite sometimes very high levels of residential segregation. The Louisville and Tampa MSAs are the most striking examples of this—both had extremely high levels of white/black residential segregation in 1990, but low levels of public school segregation. In some other MSAs, however, the public schools were even more segregated than housing patterns would predict—the Birmingham, AL, Richmond, VA, and Atlanta MSAs are examples of this pattern. In such places, the public schools may be more segregated than residential patterns not only because the public school systems have failed to integrate the schools, but also as a result of white flight to the private school sector in districts with large black populations.

There is considerable variation among the metropolitan areas of the South in levels of both residential and public school segregation, as well as in the correspondence of the

two. A summary measure of the relationship between residential and school segregation is given by the statistics on the fitted line in Figure 7, which represents the average pattern of association between the two types of segregation. If there were complete school integration in each metropolitan area, the slope of this line would be flat, and the R^2—the percent of variance in school segregation explained by residential segregation would be 0. Given the size of some metropolitan areas, this level of school integration is an unrealistic expectation, unless residential segregation between counties in large MSAs were eliminated. Nonetheless, a flatter slope indicates a weaker pattern of association between residential and school segregation, and would suggest that schools are being more effective in ameliorating the effects of residential segregation by creating racially integrated school systems. The slope (.71) of this line indicates that, on average, public school segregation in 1990 was 29% lower than residential segregation among the 128 MSAs of the South.

Figure 8 shows the same data as Figure 7, but for 2000. Several trends are evident from a comparison of the two figures. First, the MSAs are much more closely clustered around the 45-degree line. The MSAs well below the diagonal in 1990 have moved closer to the diagonal, a result of increasing school segregation and (generally) decreasing residential segregation. The slope of the fitted line is now steeper (.87), meaning that, on average, in 2000, public school segregation within an MSA was only 13% lower than residential segregation within the same MSA. By this measure, the effectiveness of school desegregation efforts was reduced by more than half in the 1990s.

Second, Figure 8 also shows that a number of MSAs in 2000 were above the diagonal—public school segregation was greater than residential segregation in the MSAs. Again, in such places, the public schools may be more segregated than residential patterns not only because the public school systems have failed to integrate the schools, but also as a

result of white flight to the private school sector in districts with large black populations.

Figure 9 overlays the 1990 and 2000 segregation data to facilitate comparison between the years. For the MSAs that in 1990 were far below the diagonal, there is a clear pattern of movement up and to the left on the figure—indicating increasing public school segregation and declining residential segregation. The same general pattern is evident for the highly segregated MSAs with large black populations, though the magnitude of the changes in these MSAs is somewhat less than for those well below the diagonal. Overall, however, the aggregate pattern of declining residential segregation coupled with increasing public school segregation is remarkably consistent across most metropolitan areas in the South.

County-Level Residential and School Segregation

One obstacle to public school segregation across metropolitan areas is their size. Because many metropolitan areas are geographically large, encompassing multiple counties and school districts, complete public school segregation is generally impossible unless there is little or no residential segregation between counties within and MSA—a situation that is generally not the case. Given the Supreme Court's 1974 ruling in *Milliken* v. *Bradley* disallowing interdistrict (and thus, intercounty) desegregation remedies except when the state can be shown to have contributed to segregation by its delineation of school district boundaries, school desegregation policies are limited in their ability to ameliorate patterns of between-district residential segregation. As a result, desegregation policies can have their strongest effects within school districts. In most Southern states, school districts are coterminous with counties (Texas and Oklahoma are exceptions), so that we can examine the effectiveness of school desegregation efforts most precisely at the county level.

Figures 10-13 are similar to Figures 7-9, except that they present data on school and residential segregation for counties within Southern MSAs rather than for whole MSAs. The

same general pattern is evident for counties as for MSAs, though they are slightly more pronounced at the county level. The counties with the largest number of blacks tend to have the highest levels of both residential and school segregation, though there are important exceptions: Prince Georges Co., MD, for example, has only a moderate level of public school segregation (though it increased in the 1990s). In addition, there are a number of counties—particularly in 1990—that had public school segregation levels far below their very high residential segregation levels: Jefferson Co., KY (Louisville), Pinellas Co., FL (St. Petersburg), Mecklenburg Co., NC (Charlotte), Chatham Co., GA (Savannah), Davidson, Co., TN (Nashville), and East Baton Rouge Parish, LA (Baton Rouge). In these counties, public school segregation efforts had largely succeeded by 1990 in overcoming high levels of within-county residential segregation to produce relatively integrated public schools.

By 2000, however, most of these counties with high levels of school integration had changed considerably, moving up and to the left in Figure 13, indicating that they had become both less residentially segregated and more educationally segregated. The changes in segregation levels in many of these counties are quite dramatic, considering that a change of .05 or more is considered substantial. Segregation changes were less dramatic for counties at the upper right of the figure—those with high levels of both school and residential segregation—but the general trend across the 50 counties with largest black populations was toward decreasing residential segregation (the average change in *H* was -0.042) and increasing residential segregation (the average change in *H* was +0.020). The slope of the fitted line changed from 0.60 in 1990 to 0.73 in 2000, so while school systems were able to reduce residential segregation patterns by an average of 40% in 1990, the average reduction was only 27% in 2000, a one-third decline in the effectiveness of school integration efforts between 1990 and 2000.

White Private School Enrollment as a Secondary Segregative Mechanism in the South, 1970-2000

Any examination of school segregation in the South is not complete without an understanding of the ways that private schooling is related to patterns of residential and public school segregation. Since the *Brown* decision, some whites have used private schools to avoid enrolling their children in integrated schools. This 'white flight' to the private sector was most dramatic in the 1970s, when the courts began actively enforcing *Brown*. Moreover, as Clotfelter argues in his paper for this conference, active desegregation efforts resulted in large increases in white private school enrollments in the South more so than elsewhere in part because the geographically large size of most Southern school districts gave whites fewer residential options for avoiding desegregated public schools (Clotfelter 2002).

What is less clear, however, is the extent to which private schooling is currently related to residential and public school segregation in the South. As a new generation of parents have come of age and enrolled their children in school and the courts have retreated from desegregation orders, it is no longer clear whether some white families actively avoid enrolling their children in high minority school districts. Certainly there is evidence to suggest that this is still the case. Our recent report examining patterns of private school enrollment found, for example, that white private school enrollment rates in the South were three times those of blacks in the South in 1997-98 (Reardon and Yun 2002). In addition, the fact that between-county public school segregation is greater in the South than is between-county residential segregation suggests that white private school enrollment rates are higher, on average, in counties with larger percentages of black students (Tables 2 and 3 above). Moreover, a number of national studies have found some evidence of white flight to

the private sector. In particular, research has found that white private school enrollment rates are higher in local schooling markets (usually defined by school districts, counties, or metropolitan areas) with higher concentrations of black students (Conlon and Kimenyi 1991; Fairlie and Resch 2002; Gemello and Osman 1984; Lankford and Wycoff 2000; Lankford, Lee, and Wycoff 1995; Schmidt 1992). Moreover, many of these studies include controls for income, and conclude that racial differences in private school enrollment rates cannot be explained by racial differences in income alone (Betts and Fairlie 2001).

To investigate patterns and trends of white flight to private schools in the South, we examine the relationship between county-level white private school enrollment rates and the black population share in counties from 1970 to 2000. We expect to observe several trends from 1970 to 1980 that are consistent with the documented white flight to private schools in response to desegregation efforts in the 1970s. First, we expect that white private school enrollment rates increased substantially in the 1970s, and that the gap between white and black private school enrollment rates increased during the same period. (If black private school enrollment rates change at a similar rate and direction as white rates, that would suggest that changes in private school enrollment rates are not driven by desegregation, but by some other secular forces that affect both white and black families' decisions.) Second, we expect the association between white private school enrollment rates and the proportion of black students in the school-age population to grow stronger from 1970 to 1980. Prior to desegregation, whites living in predominantly black counties (as well as in predominantly white counties, of course) would have often been able to attend public schools that were all (or predominantly) white, so racial preferences would not lead to high white private school enrollment rates even in predominantly black counties. After the implementation of desegregation remedies in the 1970s, however, whites seeking predominantly white schools

would either have to live in predominantly white counties or, if they lived in predominantly black counties, attend private schools.

Although the patterns of white flight to private schools in the South in the 1970s have been well documented, less is known about white private school enrollment patterns in the last two decades. Here we investigate the trends in white flight from 1970-1998 using data from the 1970-1990 Census and from the 1997-98 CCD and PSS. For 1970, 1980, and 1990, we have county-level counts of school-age children enrolled in public and private schools, broken down by race/ethnicity. County-level private school enrollment data, by race, have not yet been released for the 2000 Census (they will be in the Fall of 2002). In lieu of Census data, then, we use here 1997-98 public and private school enrollment data from the Common Core of Data (CCD) and the Private School Survey (PSS). Since some students cross county lines to attend private schools, these two data sets are not exactly comparable.[4] Nonetheless, until the 2000 Census data are available (STF4) later this year, they are useful as a good approximation.

Trends in Private School Enrollment in the South

The white private school enrollment rate increased sharply—from 7% to 10%—in the South in the late 1960s and early 1970s, even as it declined in the rest of the country at the same time (Table 4). Black private school enrollment rates were flat in both the South and the rest of the U.S. during the same period. Private school enrollments were basically flat in the South in the 1980s and 1990s, though there was a slight increase in white enrollments in the 1990s and a sharp decrease in Hispanic enrollments—most likely a result

[4] In fact, there are 442 counties—of 1425 in the South—that contain no private schools according to the 1997-98 PSS data; in the 1990 Census data, only 40 counties have no students enrolled in private schools. Most of the 442 counties without private schools contain some students who cross county borders to attend private schools.

of the changing income demographics of the Hispanic population in the South.

Table 4: Trends in Private School Enrollment in the South, by Race, 1960-1998

	White	Black	Hispanic	Total
1960	—	—	—	6.5
1970	7.0	2.1	7.8*	5.8
1980	9.7	3.3	7.9	8.1
1990	9.8	3.3	5.8	7.8
1998	10.6	3.1	4.9	8.0

Source: U.S. Census of Population, 1960-1990; Common Core of Data, 1997-98; Private School Survey, 1997-98 (National Center for Education Statistics 2000a; National Center for Education Statistics 2000b).
*Note: Hispanic rates from 1970 are not exactly comparable to later years because of different classification of Hispanics in 1970 Census.

There was considerable variation among the Southern states in the extent of the increase in the white private school enrollment rate (Figure 14). The states with the most dramatic increases in white private school enrollment rates in the 1970s were Georgia, Alabama, South Carolina, North Carolina, Tennessee, Delaware, Mississippi, Florida, and the District of Columbia—each of which had a more that 4 percentage point increase in white private school enrollment rates during the 1970s. Most of these states are in the deep South, where white resistance to desegregation was most pronounced. In the 1980s and 1990s, no Southern state experienced even as much as a 2% increase in private school enrollment rates, and many experienced some decline in white enrollment in the 1980s. Black private school enrollment rates increased at much more slowly than white rates, if at all; in only a handful of states did black private school rates increase more than one percentage point in the 1970s (Figure 15). Thus, trends for the South as a whole and for individual states suggest that there was substantial white flight to private schools in the 1970s, followed by two decades of relative stability in private school enrollments.

A more careful examination of white flight to private schools requires examining white private school enrollment rates at the county level, since counties are the most relevant geographic unit for most Southern states. In Figures 16-19, we plot the relationship between

the black school-age proportion of the population and the white private schooling rate for the years 1970, 1980, 1990, and 1998. In 1970 (Figure 16), white private schooling rates were unrelated to the black population share, except when the proportion black was 60% or greater. In 1980 and subsequent years, however, the relationship is much stronger and steeper—for predominantly white counties, white private school enrollment rates are low; for predominantly black counties, they are very high.[5] One measure of how much stronger the relationship is in 1980 than in 1970 is the change in the R^2: in 1970, black population proportion explains 25% of the variance in white private school enrollment rates; in both 1980 and 1990, it explains 65% of the variance (in 1998, the figure is either 47% or 66% depending which curve we use). This strongly indicates that the presence of black students in the public schools remains a powerful factor in shaping white families public/private schooling decisions. Moreover, there is no evidence that the relationship between black population share and white enrollment levels has declined at all since 1980.

In some ways, the persistence of white flight to private schools in high-minority counties in the South is a puzzling phenomenon. There are a number of reasons to suspect that that the relationships evident in Figures 16-19 should weaken over time. First, residential mobility would tend to weaken the relationship over time if whites desiring white classmates for their children move out of, or avoid moving into, predominantly black counties, obviating the need to choose private schooling to avoid black classmates. And in

[5] The 1998 figure shows two fitted curves. The 1998 data are not exactly comparable to the Census data used for 1970, 1980, and 1990. In particular, there are 442 counties—of 1425 in the South—that contain no private schools according to the 1997-98 PSS data (and hence have a white private school enrollment rate of 0). In the 1990 Census data, only 42 counties have no students enrolled in private schools. Most of the 442 counties without private schools contain some students who cross county borders to attend private schools, so our estimates of white enrollment rates for 1997-98 are biased downward for those counties without any private schools, and biased upward for other, neighboring counties. We therefore estimate two fitted curves for 1998—curve A is based on data from all 1425 counties, and so likely is lower than the actual curve, since it includes the 442 counties with no private schools; curve B is based on data from only the 983 counties with at least one private school, and so likely is higher than the actual curve. When STF4 data from the 2000 Census are available in Fall of 2002, we will be able to produce more comparable estimates for 2000.

fact, we do see evidence that between-county and between-district white/black residential segregation increased slightly during the 1990s (Tables 2 and 3), suggesting some residential sorting based on race. Nonetheless, the trend is weak, and does not appear to weaken the pattern of white flight to private schools in high minority counties. Second, changing racial preferences—specifically, a trend toward more tolerance of racial integration—would result in reduced white flight to private schools over time.

Third, and most importantly for the present discussion, we would expect that increasing segregation in the public schools—which has occurred during the 1990s—would make it more likely that white families desiring white classmates for their children will be able to find acceptable public schools, resulting in lower levels of white private school enrollment. The evidence, however, suggests that this is not the case.

Given the fact that the patterns of white flight to private schooling in districts with a high proportion of black students remain remarkably strong into the 1990s (with the caveat that we will have a better sense of this once the 2000 Census data are available), we need to better understand the factors that influence white private school enrollment rates. One possibility is that white private school enrollment rates may remain high even in the presence of changing racial preferences and weakening desegregation efforts simply because of social inertia—private schools established in the 1970s may have become institutionalized into the local landscape of schooling and retain substantial enrollments despite local demographic and segregation changes. Clearly more careful examination of the relationships among demographics, residential segregation, public school segregation, and private school enrollment rates is needed.

Conclusion

Public school segregation between white and black students in Southern states increased slightly in the 1990s, reversing several decades of stable integration patterns in much of the South. By itself, this trend—because it is at present relatively small in magnitude—might not be great cause for concern. However, the increase in school segregation came during a decade during which residential segregation in the South declined rather substantially. Seen in the context of these decreases in residential segregation, the increase in school segregation represents a substantial change in the effectiveness of public school desegregation efforts. In 1990, the public schools in metropolitan area counties were, on average, 40% less segregated than the housing patterns in their corresponding county—school systems were able to ameliorate two-fifths of the segregative effects of housing patterns. By 2000, however, public schools were only 27% less segregated than their local housing markets, a one-third reduction in the effectiveness of desegregation efforts.

Given these patterns, it is clear that residential segregation changes are not responsible for the increases in school segregation in the South. In fact, it is likely that school segregation levels would have increased more were it not for the substantial declines in residential segregation occurring in the 1990s.

Moreover, despite the trends toward decreasing residential segregation and increasing school segregation, patterns of 'white flight' to private schools do not appear to have lessened since the 1970s. In 1980, 1990, and 1998, county-level white private school enrollment rates were strongly and tightly linked to the proportion of the county school-age population who were black: white private school enrollment rates are extremely high in predominantly black counties, despite decades of stable integration in the public schools. This suggests that private schools continue to serve as a segregative mechanism in the South.

These trends are disturbing because they may represent the leading edge of a rapid process of resegregation of public schools in the South. The Supreme Court has made it easier for school districts currently under a desegregation order to be declared unitary, but the effects of the Court's rulings are only recently taking effect, as districts are released from desegregation orders. A number of important districts have recently been declared unitary, but so recently that the effects of those orders is not yet evident in our data. If this trend continues, it is likely that the resegregation of the South will accelerate rapidly.

References

Betts, Julian R. and Robert W. Fairlie. 2001. "Explaining ethnic, racial, and immigrant differences in private school attendance." *Journal of Urban Economics*.

Clotfelter, Charles T. 2002. "Private Schools, Segregation, and the Southern States." Paper prepared for the conference on the Resegregation of Southern Schools, University of North Carolina at Chapel Hill.

Conlon, John R. and Mwangi S. Kimenyi. 1991. "Attitudes towards race and poverty in the demand for private education: The case of Mississippi." *The Review of Black Political Economy*:5-22.

Fairlie, Robert W. and Alexandra M. Resch. 2002. "Is there 'white flight' into private schools? Evidence from the National Educational Longitudinal Survey." *The Review of Economics and Statistics* 84:21-33.

Gemello, John M. and Jack W. Osman. 1984. "Estimating the demand for private school enrollment." *American Journal of Education* 92:262-279.

Lankford, Hamilton and James Wycoff. 2000. "The Effect of School Choice and Residential Location on the Racial Segregation of Students." Unpublished manuscript.

Lankford, R. Hamilton, E. S. Lee, and James H. Wycoff. 1995. "An analysis of elementary and secondary school choice." *Journal of Urban Economics* 38:236-251.

Lewis Mumford Center for Comparative Urban and Regional Research. 2001. "Ethnic Diversity Grows, Neighborhood Integration Lags Behind." Lewis Mumford Center for Comparative Urban and Regional Research, State University of New York, Albany, Albany, NY.

Logan, John R., Jacob Stowell, and Deirdre Oakley. 2002. "Choosing Segregation: Racial Imbalance in American Public Schools, 1990-2000." Lewis Mumford Center for Comparative Urban and Regional Research, State University of New York, Albany, Albany, NY.

Massey, Douglas S. and Nancy A. Denton. 1988. "The dimensions of residential segregation." *Social Forces* 67:281-315.

National Center for Education Statistics. 2000a. "1997-98 NCES Common core of data (CCD) Public Elementary and Secondary School Universe." Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

—. 2000b. "1997-98 NCES Private School Survey (PSS)." Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

—. 2002. "Common Core of Data (CCD) Public Elementary and Secondary School Universe Data." Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

Orfield, Gary and Nora Gordon. 2001. "Schools more separate: Consequences of a decade of resegregation." The Civil Rights Project, Harvard University, Cambridge, MA.

Reardon, Sean F. and Glenn Firebaugh. 2002. "Measures of multi-group segregation." *Sociological Methodology* 32:33-67.

Reardon, Sean F. and John T. Yun. 2001. "Suburban racial change and suburban school segregation, 1987-1995." *Sociology of Education* 74:79-101.

—. 2002. "Private school racial enrollments and segregation." Civil Rights Project, Harvard University, Cambridge, MA.

Reardon, Sean F., John T. Yun, and Tamela McNulty Eitle. 2000. "The changing structure of school segregation: Measurement and evidence of multi-racial metropolitan area school segregation, 1989-1995." *Demography* 37:351-364.

Schmidt, Amy B. 1992. "Private school enrollment in metropolitan areas." *Public Finance Quarterly* 20:298-320.

Yun, John T. and Sean F. Reardon. 2002. "Trends in Public School Segregation in the South, 1987-2000." Paper prepared for the conference on the Resegregation of Southern Schools, University of North Carolina at Chapel Hill.

Figure 1:

White-Black Residential Segregation Among Census Tracts, by State, 1990-2000

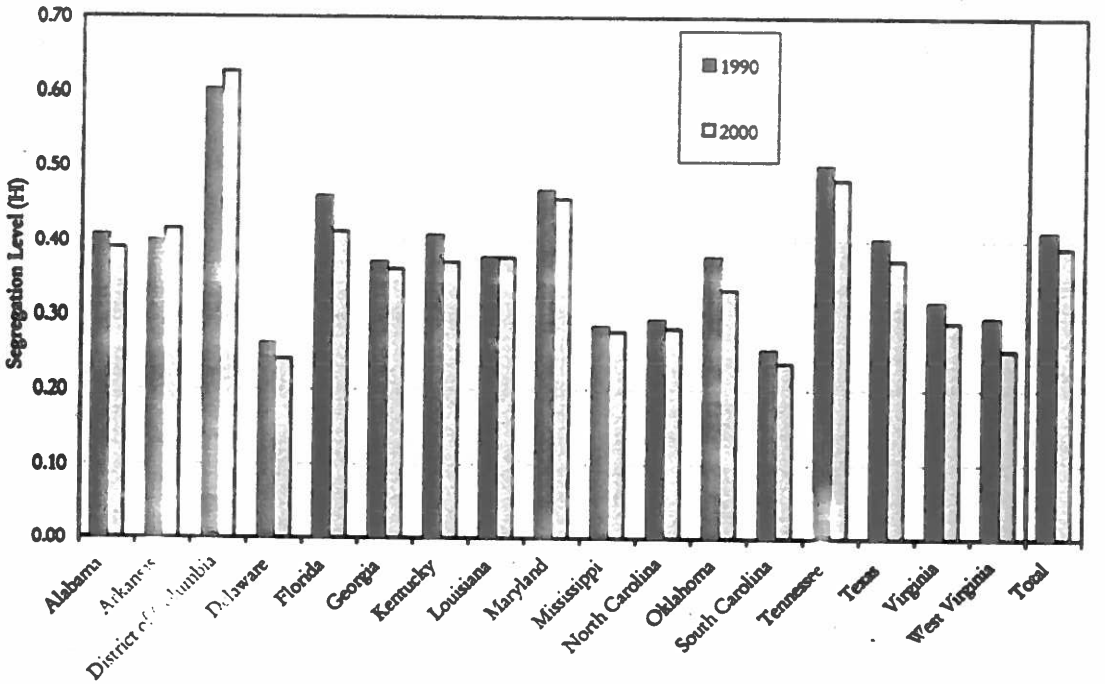

Figure 2:

White-Hispanic Residential Segregation Among Census Tracts, by State, 1990-2000

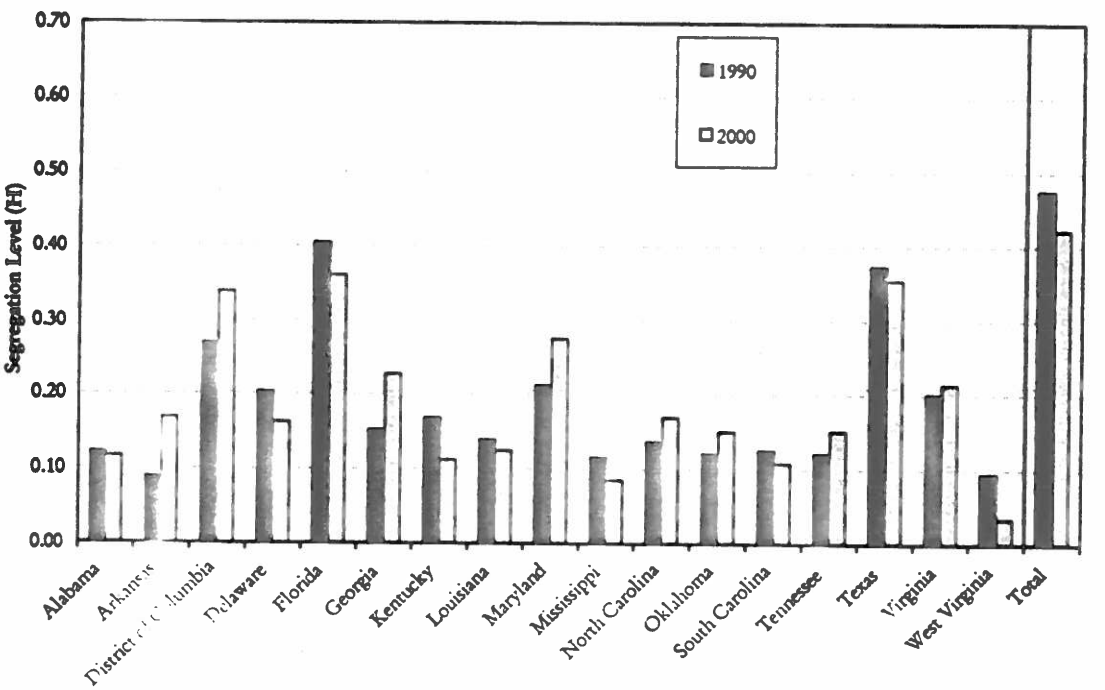

Figure 3:

White-Black School Segregation Among Public Schools, by State, 1990-2000

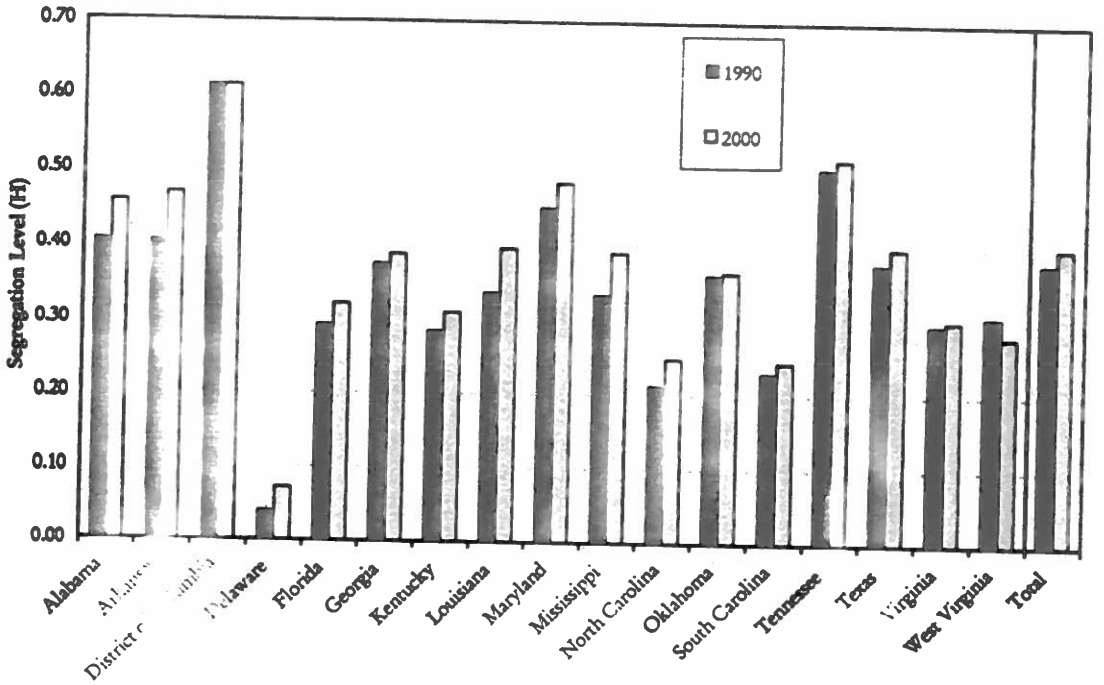

Figure 4:

White-Hispanic School Segregation Among Public Schools, by State, 1990-2000

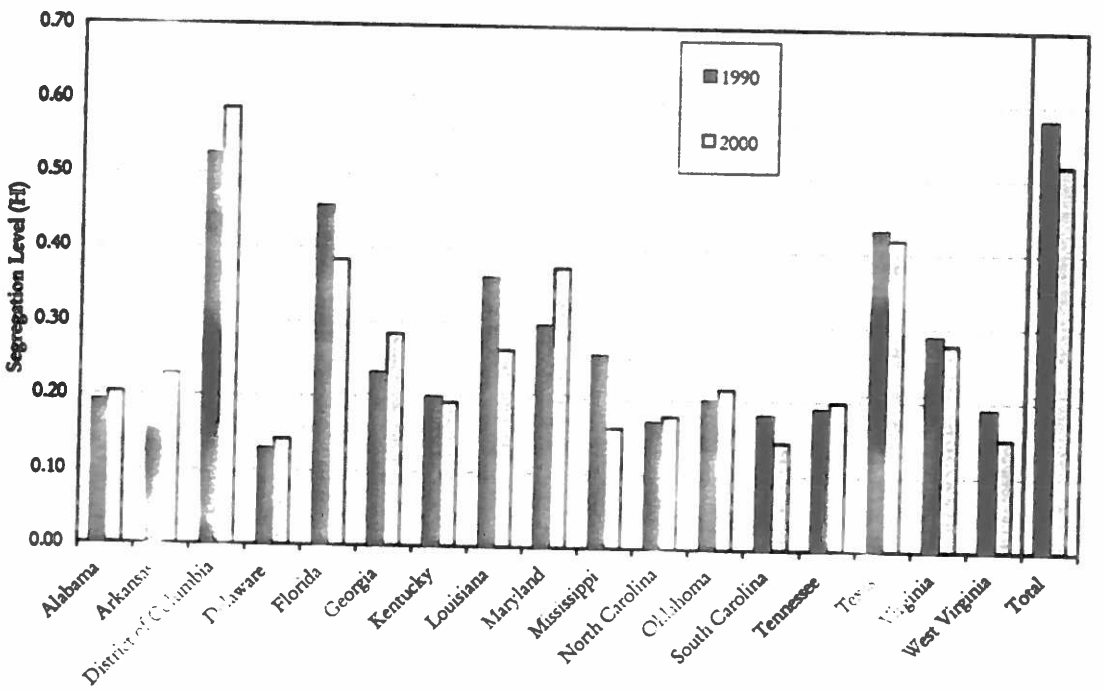

Figure 5:

Changes in Black-White Residential and Public School Segregation, Southern States, 1990-2000

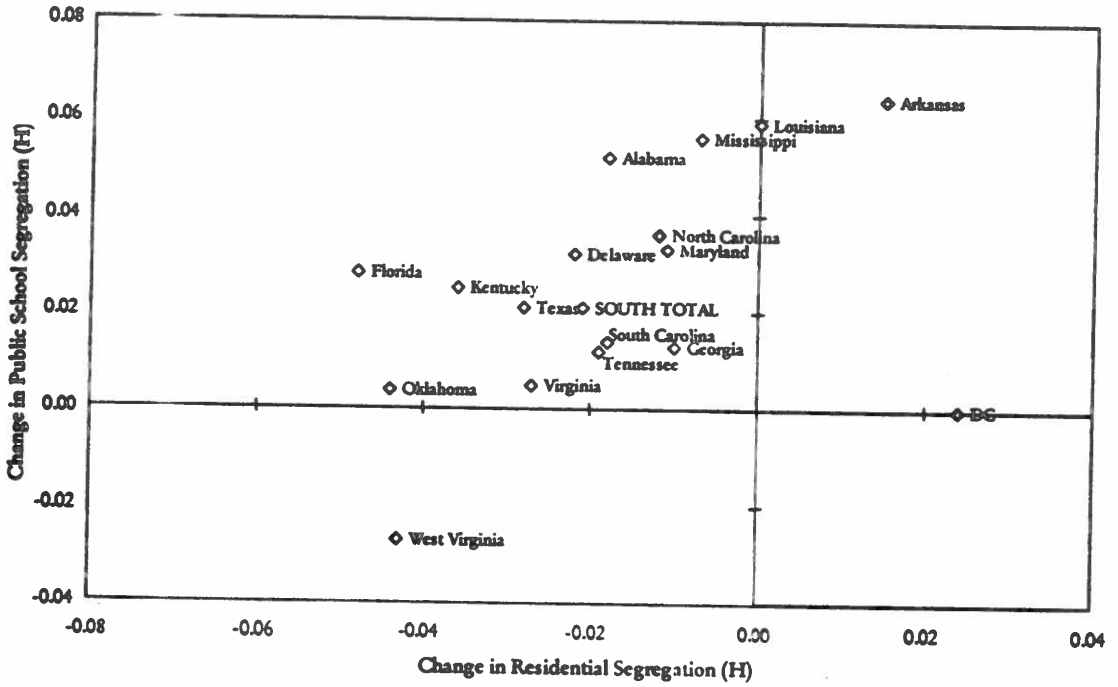

Figure 6:

Changes in Hispanic-White Residential and Public School Segregation, Southern States, 1990-2000

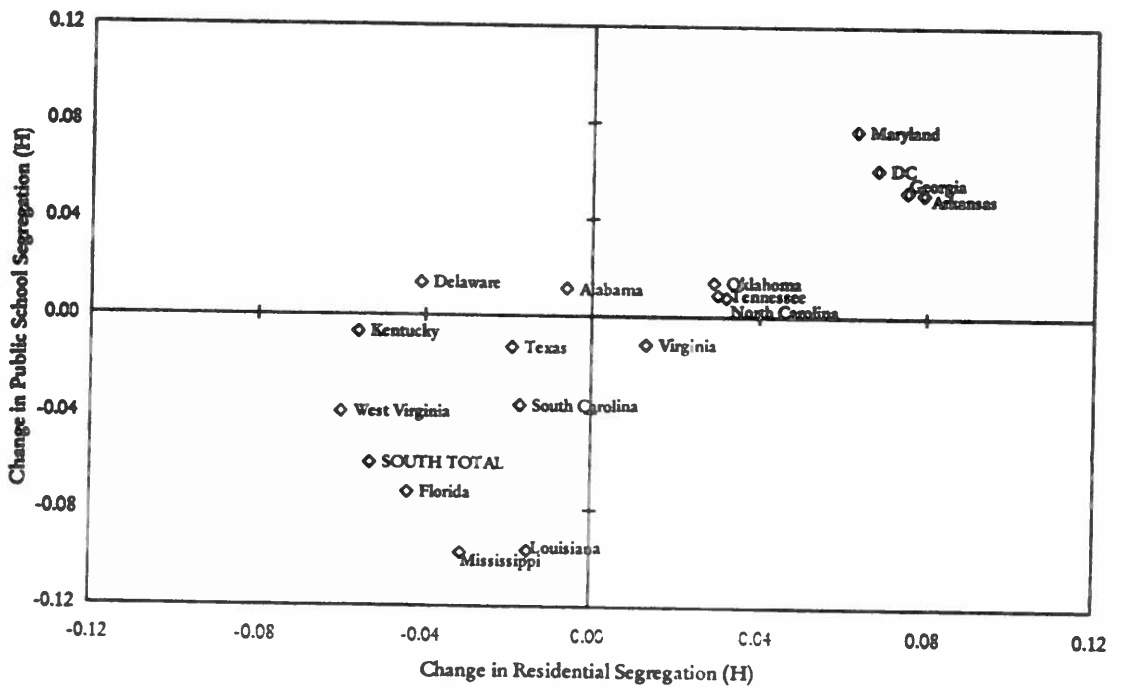

Figure 7:

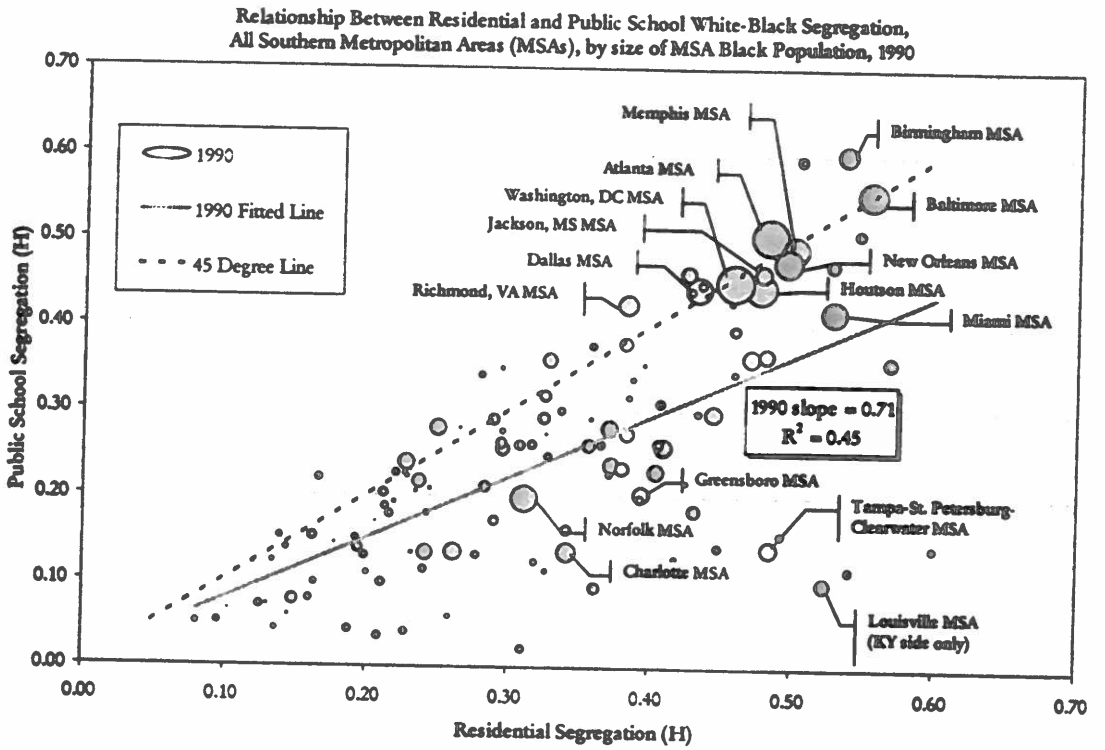

Figure 8:

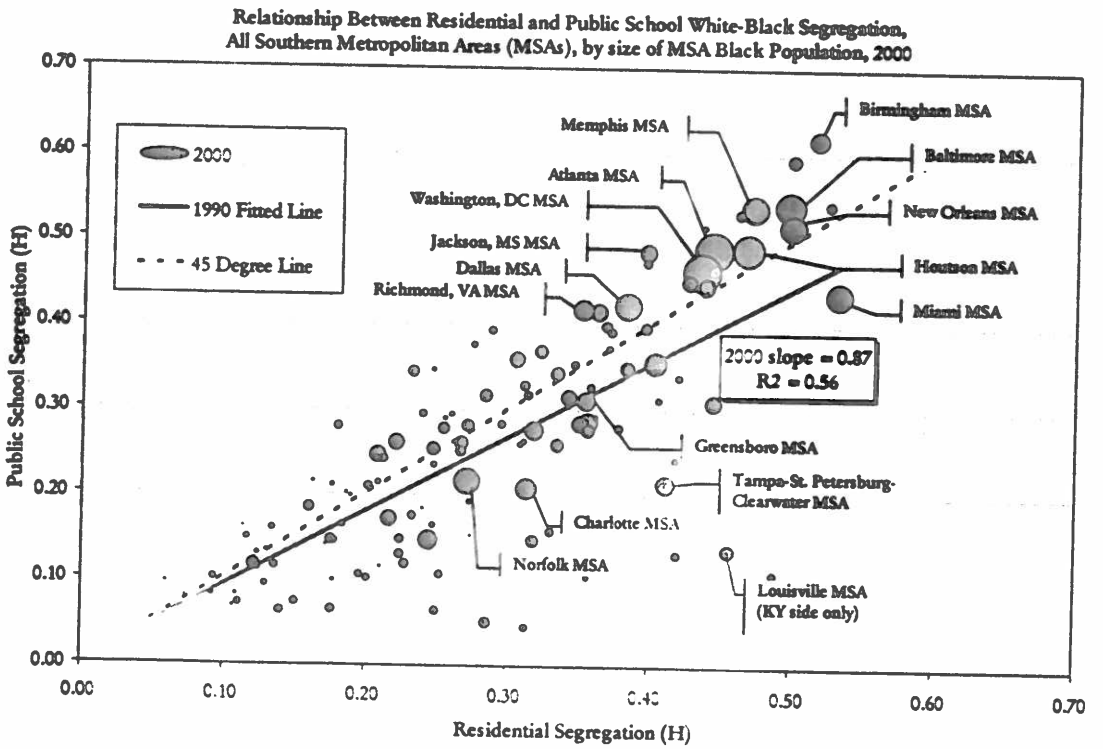

Figure 9:

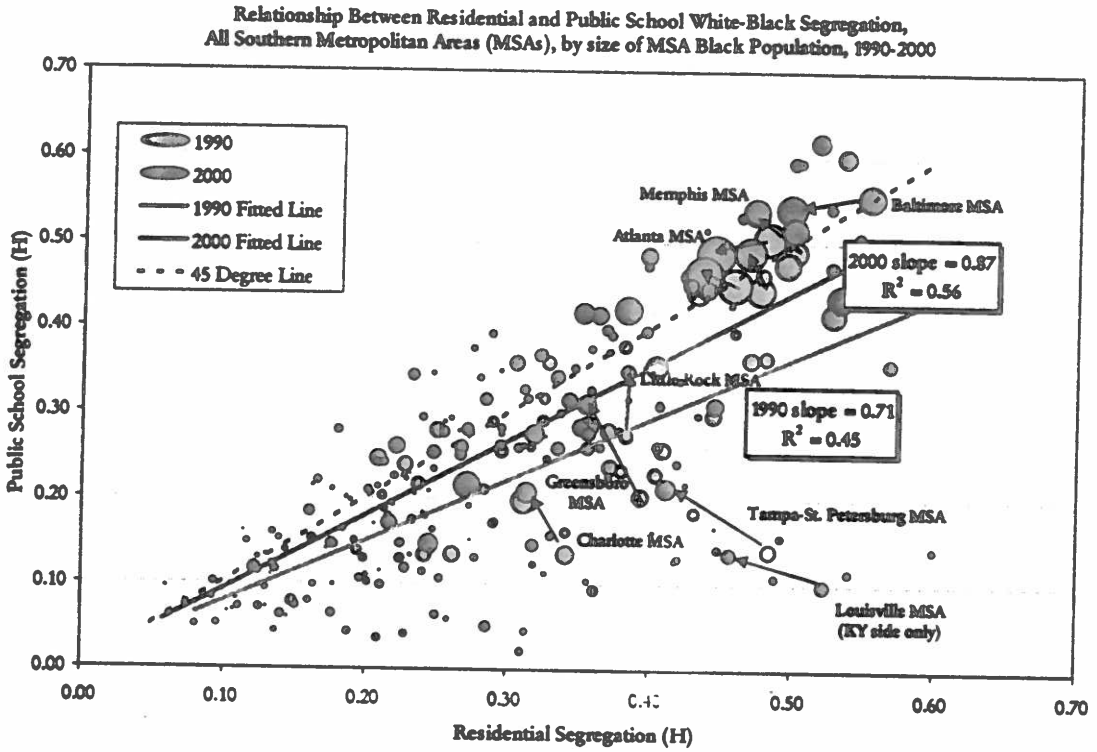
Relationship Between Residential and Public School White-Black Segregation,
All Southern Metropolitan Areas (MSAs), by size of MSA Black Population, 1990-2000
1990
2000
1990 Fitted Line
2000 Fitted Line
45 Degree Line
Memphis MSA
Baltimore MSA
Atlanta MSA
2000 slope = 0.87
R² = 0.56
Little Rock MSA
1990 slope = 0.71
R² = 0.45
Greensboro MSA
Tampa-St. Petersburg MSA
Charlotte MSA
Louisville MSA
(KY side only)
Public School Segregation (H)
Residential Segregation (H)
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70

Figure 10:

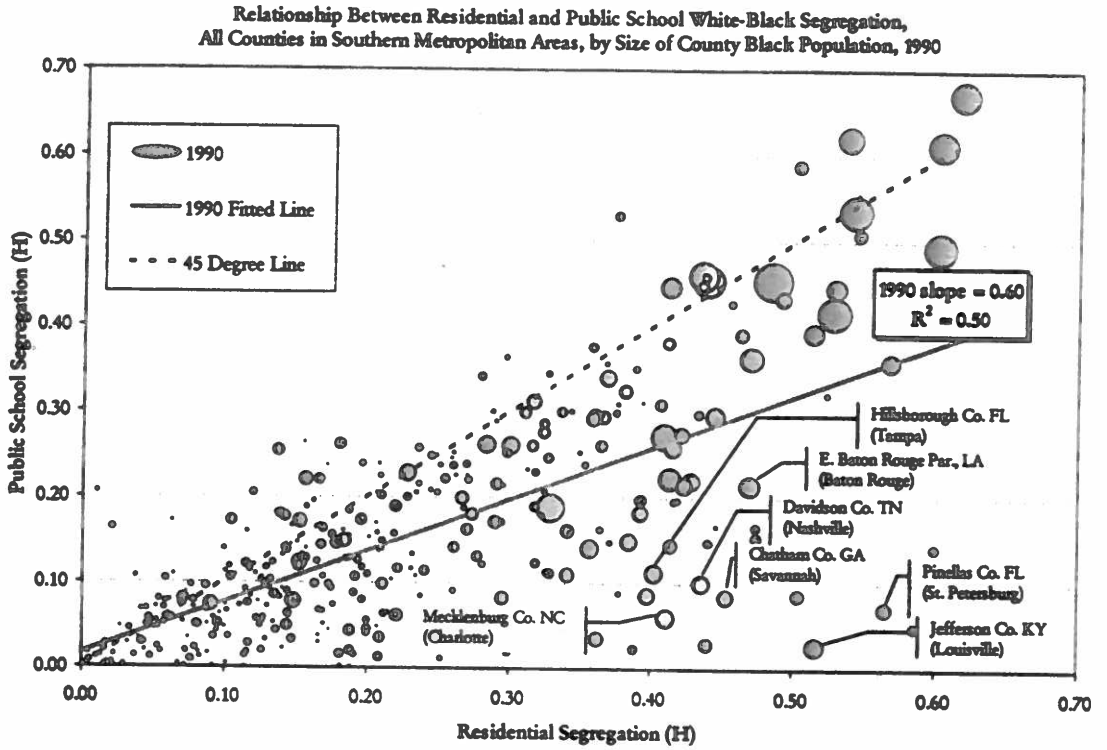

Figure 11:

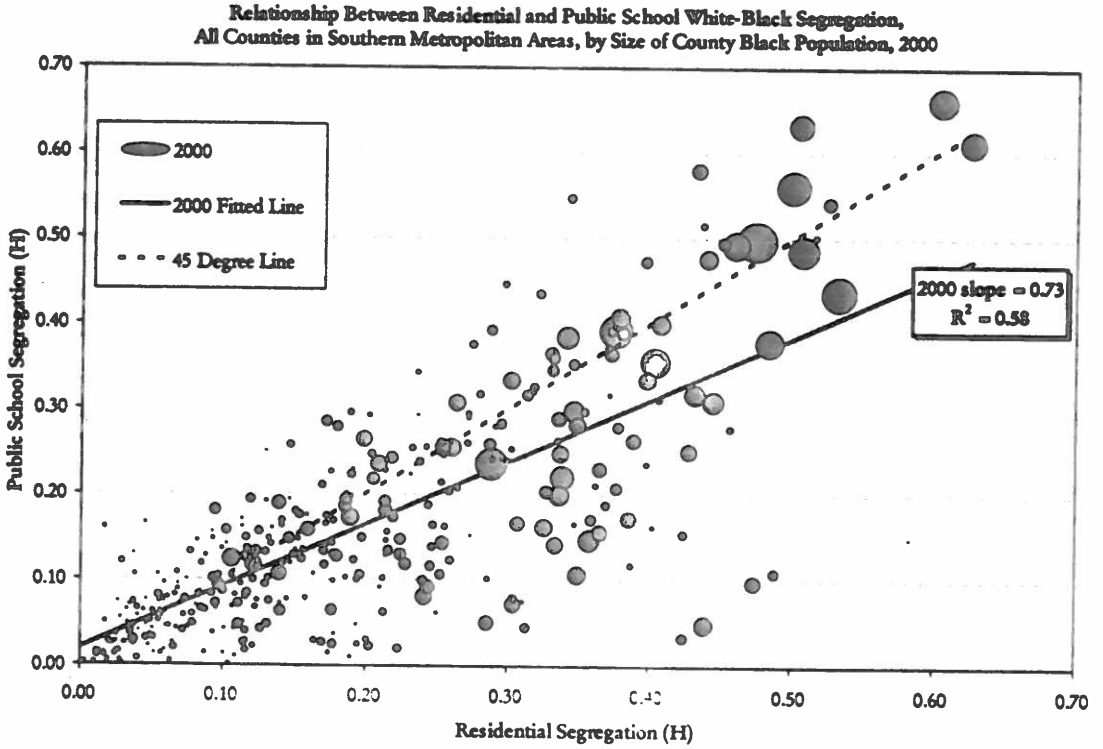

Figure 12:

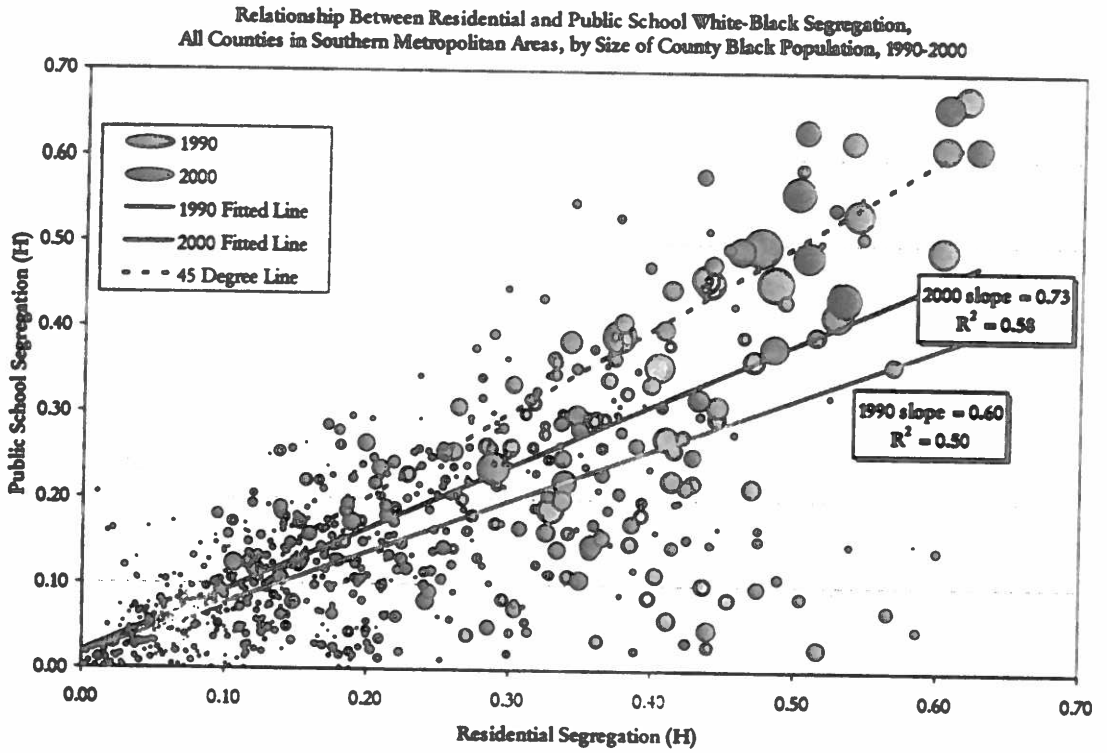

Figure 13:

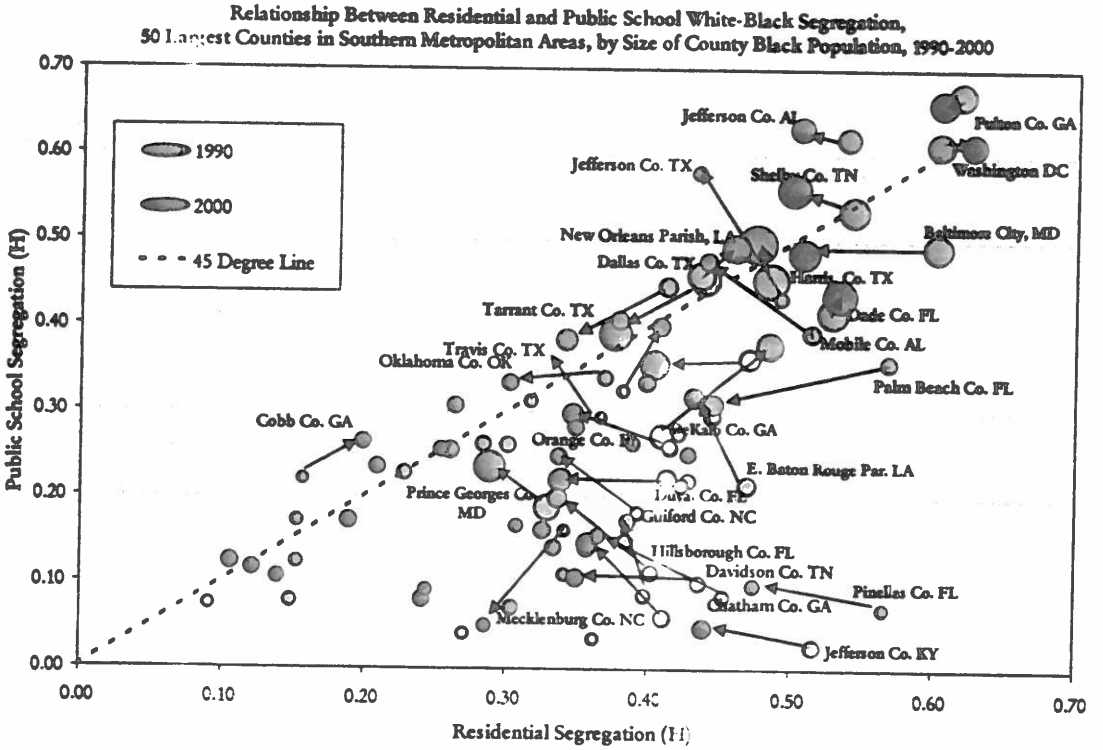

Figure 14:

Change in White Private School Enrollment Rates, by State and Decade, Southern States 1970-1998

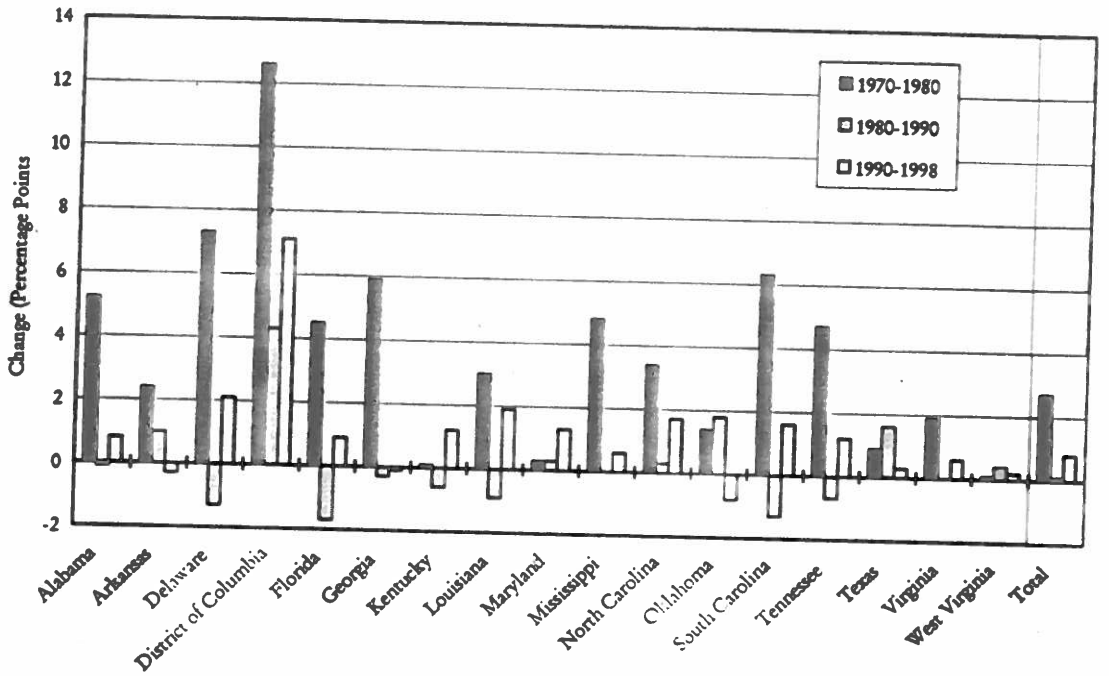

Figure 15:

Change in Black Private School Enrollment Rates, by State and Decade, Southern States 1970-1998

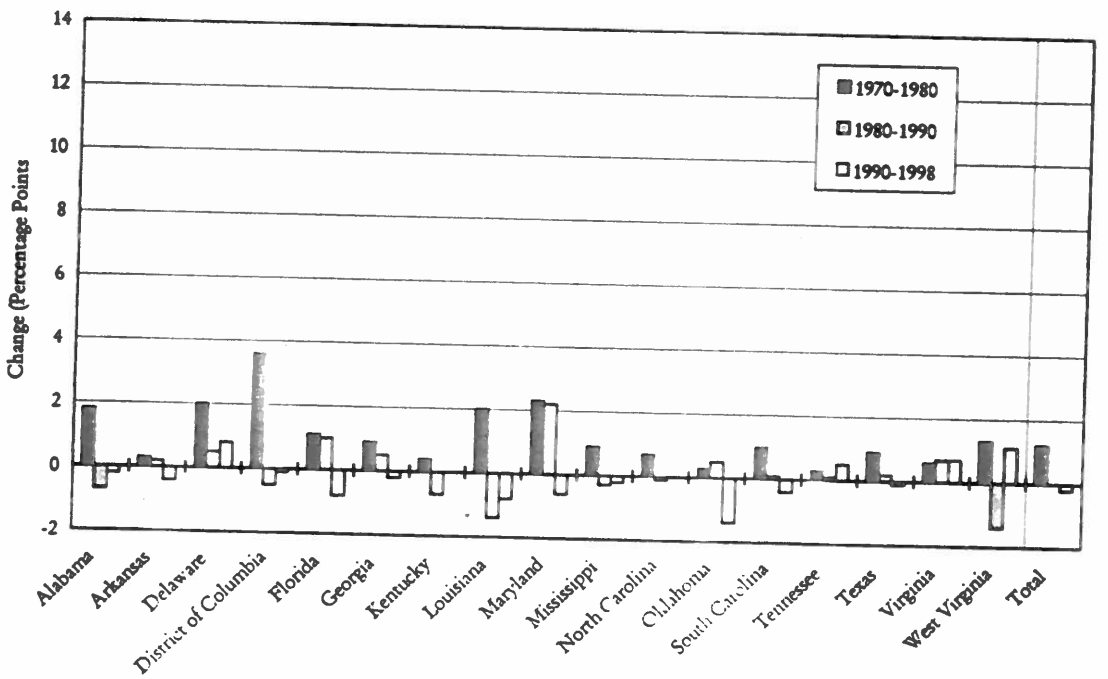

Figure 16:

White Private School Enrollment Rates by Black School Age Population, Southern Counties, 1970

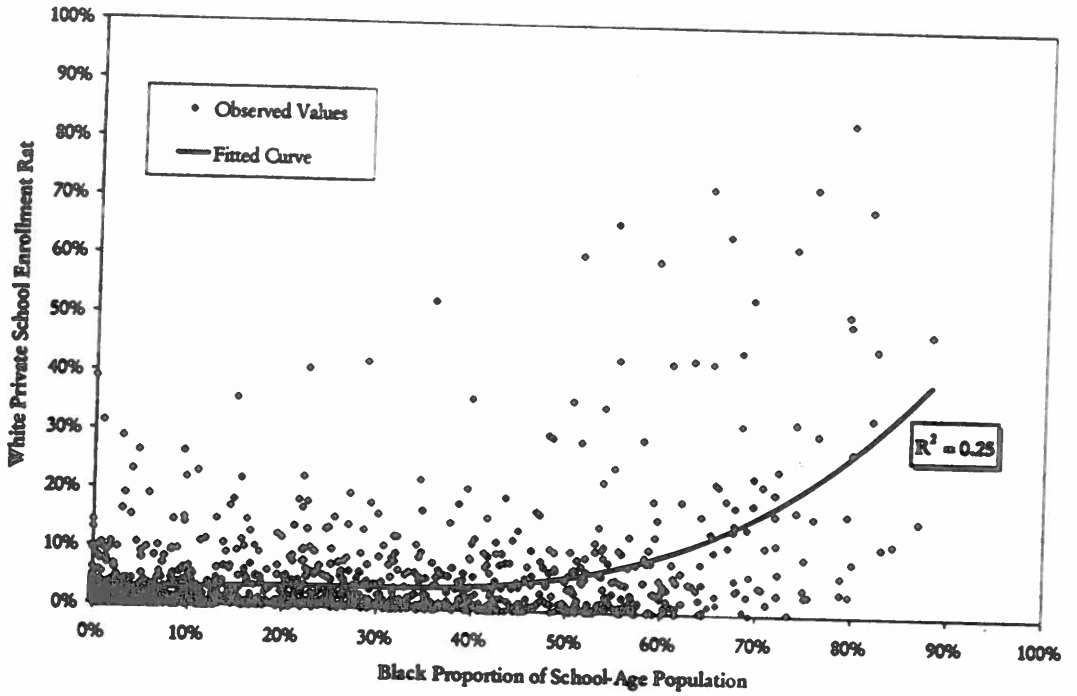

Figure 17:

White Private School Enrollment Rates by Black School Age Population, Southern Counties, 1980

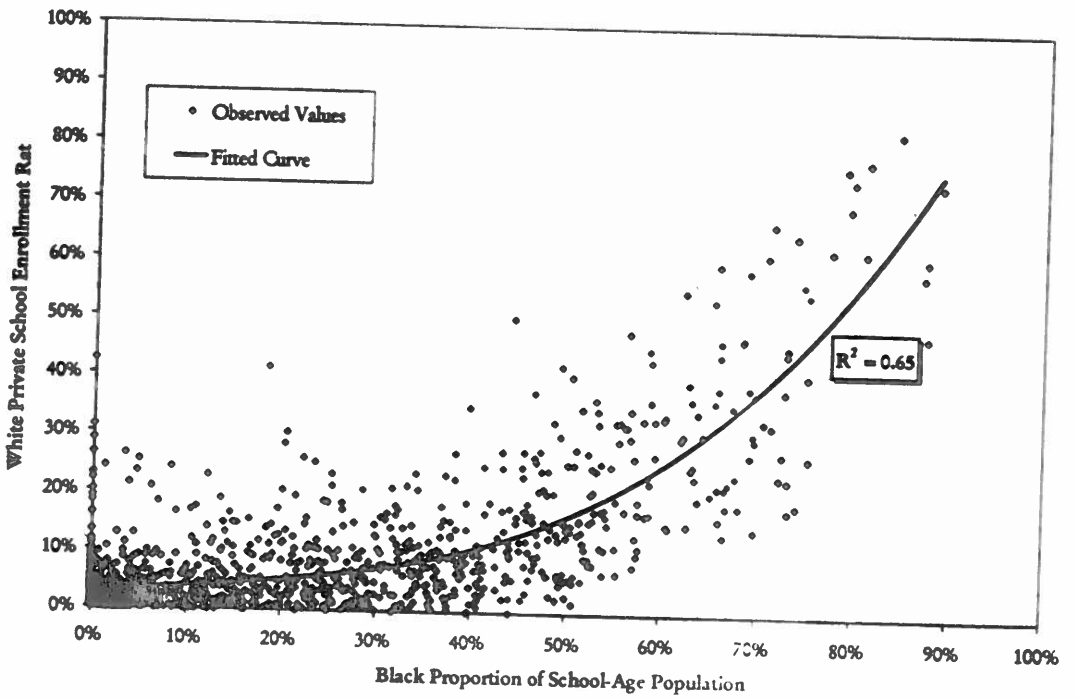

Figure 18:

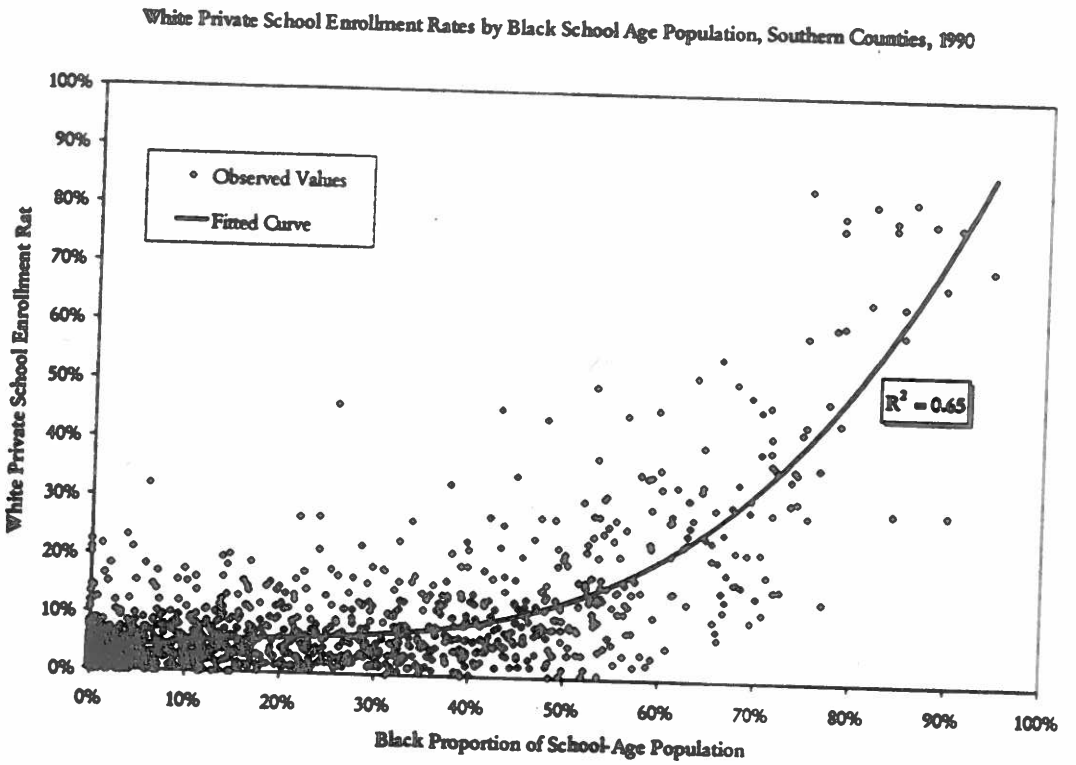

Figure 19: