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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 in which residential segregation in the South declined 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, public schools in metropolitan area counties were, on average, forty percent less segregated than the housing patterns in their corresponding county. By 2000, however, public schools were only twenty-seven percent less segregated than their local housing markets, a one-third reduction in the effectiveness of desegregation efforts.

Meanwhile, patterns of “white flight” to private schools have persisted through 1980, 1990, and 2000. During this time, county-level white private school enrollment rates were tightly linked to
the proportion of the county school-age population who were black: white private school enrollment rates were extremely high in predominantly black counties, despite decades of stable integration in the public schools.

INTRODUCTION

After decades of being the most successfully integrated schools in the United States, the public schools of the South appear to be headed slowly toward resegregation. The causes of this trend, however, remain unclear. Changes in public school segregation patterns could be caused by any of three general factors: changes in residential patterns; changes in private school enrollment patterns; or

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changes in public school districts' policies. Changes in these three factors are, in turn, 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.

In this Article we examine various relationships between residential and school segregation to better understand the increase in school segregation in the South during the 1990s. The relationship between residential and public school segregation is particularly important given the Supreme Court's insistence that states and their public school systems cannot be held responsible for school segregation patterns that result from segregated residential patterns arising from the private choices of individuals. If, then, school resegregation results primarily from increased residential segregation, there may be little recourse in the courts to oppose the resegregation of schools. If, however, resegregation of 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.

Thus, from a legal perspective, we are interested in distinguishing between two possible proximal causes of the trend toward increasing school segregation, each with different legal and policy implications. As noted above, one possibility is that public schools are becoming more segregated as a result of increasingly segregated residential patterns, particularly interdistrict segregation patterns. To the extent that white and black families reside in separate school districts, intradistrict integration policies will be increasingly ineffective in producing racially integrated schools, no matter how strongly the policies are enforced. Although white/black residential segregation has declined gradually nationwide since 1980, it is not clear whether this trend is true in the South as well; nor is it clear whether interdistrict residential segregation is declining at the same time as


3. Interdistrict desegregation plans, of course, might still be effective even if interdistrict residential segregation increases. But the Supreme Court, in Milliken v. Bradley, 418 U.S. 717 (1974), limited the ability of courts to order such remedies except in cases where the state is shown to have contributed to segregation by its delineation of school district boundaries. See id. at 744-45.

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 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. By a set of rulings, including Board of Education v. Dowell and Freeman v. Pitts, the Supreme Court has made it easier for many school systems 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 and Greensboro, North Carolina; and Tampa and St. Petersburg, Florida; 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. Therefore 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.

An additional factor—i.e., not cause—possibly shaping changes in public school segregation levels is changes in patterns of white private school enrollment. “White flight” to the private sector in the

7. In Dowell, the Court emphasized that desegregation orders were intended to be temporary and that a return to local control was preferable, once a district had “complied in good faith with the desegregation decree since it was entered, and . . . the vestiges of past discrimination had been eliminated to the extent practicable.” Dowell, 498 U.S. at 249–50. In Freeman, the Court ruled that districts could be released from desegregation orders piecemeal—district courts might end their judicial oversight in areas where sufficient progress had been shown, for example, in student or faculty assignments, while retaining oversight in other areas where progress was still needed. See Freeman, 503 U.S. at 489–90. Moreover, the Court emphasized the need for a district’s “good faith commitment” to end segregation, see id. at 491, rather than the stronger requirement that desegregation efforts “work, and . . . work now,” an approach that the Court had previously emphasized. Green v. County Sch. Bd., 391 U.S. 430, 439 (1968). Most recently, in Missouri v. Jenkins, 515 U.S. 70 (1995), the Court appeared to shift the burden of proof from school districts (who, since Green, had been required to explain racial disparities) to plaintiffs, who, it said, must identify the “incremental effect” that prior de jure segregation had upon any continuing racial disparities if they are to be considered by federal courts. See id. at 101.
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 may still be an important factor shaping overall segregation patterns in many areas, as white private school enrollment levels remain highly correlated with black proportion of the population.9

The Article is organized in four parts. First, we examine patterns and trends of white/black and white/Hispanic residential segregation in the South from 1990 to 2000. Second, we briefly examine patterns and trends of public school segregation in the South from 1990 to 2000, again looking at both white/black and white/Hispanic segregation patterns. 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 because 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 to 2000. Although this last section does not address the relationship between public school segregation and private school enrollments explicitly, it provides contextual information that reveals the continuing importance of private school enrollments in shaping public school patterns.

I. ANALYTIC STRATEGY

From a legal and policy perspective, we want to know the extent to which the trend of increasing school segregation in the South is due to each of three factors: increases in residential segregation, changes in school assignment policies, and changes in patterns of white private school enrollment. We examine the data on school and residential segregation to determine whether the observed patterns of school and residential segregation are consistent with each of these processes. If increasing school segregation is driven primarily by increasing residential segregation, then we would expect local changes in school segregation to be positively correlated with local changes in

residential segregation. If, however, increasing school segregation is driven by changes in school assignment policies (including a retreat from active desegregation efforts), then we would expect local changes in school segregation to be largely uncorrelated with changes in residential segregation. Instead, we might expect that the increases in school segregation should be greatest in areas where there is high residential segregation but relatively low school segregation—places where desegregation efforts have been most active and effective. Finally, if school segregation is affected by changes in white private school enrollment patterns—specifically, if increasing school segregation results from a larger proportion of white students enrolling in private schools—then we would expect to see decreasing rates of white flight over time. Our strategy, then, is to examine the data on school enrollment and residential patterns over the last decade to determine which of these explanations for increasing school segregation are consistent with the data. We can then rule out any explanations that are not consistent with the data.

A. Data

We use several primary sources of data for this Article. For patterns of residential segregation, we use tract-level race/ethnic counts from the 1990 and 2000 Censuses.\footnote{Census tracts are small geographic areas within counties that are delineated by the U.S. Census. Generally, census tracts have between 2,500 and 8,000 residents and boundaries that follow visible features (major roads, rivers, etc.). When first established, census tracts are delineated so as to be as homogenous as possible with respect to population characteristics, economic status, and living conditions. Because Census data, such as racial composition, are tabulated and reported at the tract level, residential segregation levels are typically computed based on tract-level data. For more detail on census tract definitions, see U.S. DEPT OF COMMERCE, BUREAU OF THE CENSUS, GEOGRAPHIC AREAS REFERENCE MANUAL 10-1 to 10-17 (Census Tracts and Block Numbering Areas), available at http://www.census.gov/geo/www/GARM/Ch10GARM.pdf (last visited Apr. 9, 2003) (on file with the North Carolina Law Review).} For 1990, we use counts of the non-Hispanic white population (referred to as “white” in this Article), the non-Hispanic black population (“black”), the Hispanic population (“Hispanic”), and all other race/ethnic counts combined (“other”). For 2000, we use the same categories, except that we classify all those falling into the “two or more races” and “not Hispanic” category as “other.”\footnote{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). U.S. CENSUS BUREAU, QUICK TABLES, RACE AND HISPANIC OR LATINO: 2000, SOUTH REGION, at http://factfinder.census.gov/servlet/QTrable?_ts=6598435978 (last visited Apr. 9, 2003) (on file with the North Carolina Law Review).}

The states included in the data reported here are those included in the Census definition of the South. We use definitions of metropolitan areas based on the Census Bureau's 1993 definitions of Metropolitan Statistical Areas ("MSAs"), the year that the definitions were updated based on 1990 Census data.

B. Measures

The measure of segregation we use in this Article is an index called the information theory index, referred to as $H$. $H$, like more familiar measures of segregation, such as the dissimilarity index, is a measure of how evenly race/ethnic population groups are distributed...
among census tracts or schools.\textsuperscript{16} $H$ does not depend on the race/ethnic composition of the population, but only on how evenly population groups are distributed among schools or tracts.\textsuperscript{17} $H$ 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.\textsuperscript{18} A rough guide to interpreting $H$ values is shown in Table 1. Note that a change in $H$ of 0.05 or more in a decade represents a significant change in segregation levels (one that corresponds roughly to a change of 10 points in the dissimilarity index).\textsuperscript{19}


\textsuperscript{17} The information theory index is computed as one minus the ratio of the average diversity of individual schools or tracts to the diversity of the total population in all schools or tracts combined. 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 racial/ethnic group, then the average diversity within schools or tracts will be low, compared to that of the population, and $H$ will be large. For more detail on the properties of the information theory index, see Sean F. Reardon et al., The Changing Structure of Segregation: Measurement and Evidence of Multi-racial Metropolitan Area School Segregation, 1989-1995, 37 DEMOGRAPHY 351, 353-56 (2000); Reardon & Firebaugh, supra note 16, at 57-58.

\textsuperscript{18} To give an example of what various values of $H$ mean in practice, consider a school district comprised of only three types of schools: all-white schools, all-black schools, and schools whose racial proportions match those of the district's total enrollment. In this simple case, $H$ is equal to the proportion of students in the district who are enrolled in the all-white and all-black schools. So, for example, if a district's student population is 30% black and 70% white, and if half the black students attend all-black schools, half the white students attend all-white schools, and the remainder of the students attend schools that are 30% black and 70% white, then $H$ will equal 0.50. Likewise, if only 10% of students attend all-black or all-white schools, with the remainder in 30% black, 70% white schools, then $H$ will be 0.10. Of course, in practice, school enrollment patterns are not so simply distributed, as there are schools of a wide range of racial compositions, but these examples give a rough guide to interpreting the magnitude of $H$.

\textsuperscript{19} See THE LEWIS MUMFORD CTR., supra note 4, at 2 (noting that a change of ten points on the index of dissimilarity is significant); Sean F. Reardon & John T. Yun, Suburban Racial Change and Suburban School Segregation, 1987-95, 74 SOC. EDUC. 79, 85-86 (2001) (describing $H$ and comparing it to the dissimilarity index).
Table 1. Interpretation of Values of Information Theory Index \((H)\).  

<table>
<thead>
<tr>
<th>Value of Information Theory Index ((H))</th>
<th>Corresponding Values of Dissimilarity Index ((D))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extreme Segregation 0.40–1.00</td>
<td>70–100</td>
</tr>
<tr>
<td>High Segregation 0.25–0.40</td>
<td>50–80</td>
</tr>
<tr>
<td>Moderate Segregation 0.10–0.25</td>
<td>30–60</td>
</tr>
<tr>
<td>Low Segregation 0.00–0.10</td>
<td>0–30</td>
</tr>
</tbody>
</table>

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, one advantage of the information theory index over other more common indices is that it can be easily decomposed into components representing segregation between and within organizational and geographic units (such as counties or school districts). Thus, we can compute not only the overall level of school segregation in the South, but we also can distinguish between interdistrict segregation—segregation that results from an unequal distribution of black and white students among school districts—and intradistrict segregation—segregation that results from the unequal distribution of black and white students among schools within a given district. We likewise can separate residential segregation, for example, into inter- and intracounty components.

II. RESULTS

A. Changes in Residential Segregation in the South, 1990–2000

Residential white/black segregation declined in the South from 1990 to 2000, just as it did elsewhere in the United States. In addition, white/Hispanic residential segregation declined overall in the South from 1990 to 2000. Table 2 illustrates the changing patterns of segregation in the South as a whole from 1990 to 2000.

The overall levels of white/black residential segregation in the South declined only modestly from 1990 to 2000, though this modest...

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20. The data in this table is a rough heuristic derived from experience in studying segregation and from rough consensus in the literature.


decline masks two conflicting trends: white/black segregation between counties actually increased during the 1990s, while segregation within counties declined at the same time. This means that black and white families were more likely to live in separate counties in 2000 than they were in 1990. For the most part, this increase in intercounty segregation was due to increases in segregation among counties in metropolitan areas (likely a result of growing white suburbanization), rather than changes in the segregation between rural and metropolitan counties or changes in segregation patterns among rural counties. In contrast, segregation within counties fell, on average, during the 1990s, though intracounty segregation still accounted for the majority of white/black segregation in 2000, as demonstrated in Table 2.

Table 2. Changes in Residential Segregation, South, 1990–2000.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL SOUTH SEGREGATION (H)</td>
<td>.412</td>
<td>.391</td>
<td>.475</td>
<td>.422</td>
<td>.343</td>
<td>.308</td>
</tr>
<tr>
<td>INTERCOUNTRY COMPONENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portion</td>
<td>.157</td>
<td>.167</td>
<td>.375</td>
<td>.314</td>
<td>.155</td>
<td>.154</td>
</tr>
<tr>
<td>Proportion</td>
<td>38.1%</td>
<td>42.7%</td>
<td>78.9%</td>
<td>74.4%</td>
<td>45.2%</td>
<td>50.0%</td>
</tr>
<tr>
<td>INTRACOUNTRY COMPONENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portion</td>
<td>.255</td>
<td>.224</td>
<td>.100</td>
<td>.108</td>
<td>.188</td>
<td>.154</td>
</tr>
<tr>
<td>Proportion</td>
<td>61.9%</td>
<td>57.3%</td>
<td>21.1%</td>
<td>25.6%</td>
<td>54.8%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Average Intracounty Segregation (H)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALL COUNTIES</td>
<td>.132</td>
<td>.114</td>
<td>.074</td>
<td>.047</td>
<td>.096</td>
<td>.077</td>
</tr>
<tr>
<td>COUNTIES IN LARGE MSAs</td>
<td>.204</td>
<td>.178</td>
<td>.079</td>
<td>.080</td>
<td>.150</td>
<td>.124</td>
</tr>
<tr>
<td>COUNTIES IN SMALL MSAs</td>
<td>.227</td>
<td>.188</td>
<td>.093</td>
<td>.070</td>
<td>.169</td>
<td>.133</td>
</tr>
<tr>
<td>RURAL COUNTIES</td>
<td>.099</td>
<td>.087</td>
<td>.070</td>
<td>.036</td>
<td>.071</td>
<td>.057</td>
</tr>
</tbody>
</table>

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 intercounty 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, most 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); therefore white/Hispanic segregation levels reflect primarily interstate differences in Hispanic proportions rather than more localized segregation patterns.

23. The data in this table is derived from the authors' tabulations of Census 2000 data.
Within individual states, white/black 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 Arkansas and the District of Columbia in the 1990s, the levels remained nonetheless in the high or extremely high range for almost all southern states in 2000.\textsuperscript{24} White/Hispanic segregation levels, in contrast, were generally in the low to moderate range for all states except those with large Hispanic populations—Texas and Florida.\textsuperscript{25} White/Hispanic segregation increased substantially in Arkansas, the District of Columbia, Georgia, and Maryland; in each of these places the Hispanic population grew sharply.

**B. Changes in Public School Segregation in the South, 1990–2000**

Nationally, public school segregation increased slightly from 1990 to 2000.\textsuperscript{26} In the South, segregation between white and black students increased modestly, while segregation between white and Hispanic students decreased substantially, as demonstrated in Table 3. As with residential segregation, the white/black and white/Hispanic 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, interdistrict 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 several important ways from patterns of white/black residential segregation in the South. First, although both school and residential segregation levels are quite high, residential segregation declined in the 1990s, while school segregation increased. Second, white/black school segregation between school districts is much larger than residential white/black segregation between counties. In part, this disparity is because there are far more school districts (roughly

\textsuperscript{24} See infra Appendix, Figure 1.

\textsuperscript{25} See infra Appendix, Figure 2.

\textsuperscript{26} FRANKENBERG ET AL., supra note 22, at 5-6; LOGAN, supra note 8, at 1; GARY ORFIELD, THE CIVIL RIGHTS PROJECT, HARVARD UNIV., SCHOOLS MORE SEPARATE: CONSEQUENCES OF A DECADE OF RESEGREGATION passim (2001), available at \url{http://civilrightsproject.harvard.edu/research/deseg/Schools_More_Separate.pdf} (on file with the North Carolina law Review).
3,400) in the South than there are counties (1,425); a larger number of units allows for greater segregation. Nonetheless, even if we take this factor into account by computing school segregation measures between counties rather than between districts, the results, which are not shown here, still indicate that intercounty school segregation is roughly forty percent greater than intercounty residential segregation—a situation that would result from white flight to the private sector in predominantly black counties. For example, 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. This behavior would result in higher levels of intercounty school segregation than residential segregation. In fact, this pattern is exactly what happens, as we show in Part II.D.2.

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

**Table 3. Changes in Public School Segregation, South, 1990–2000.**

<table>
<thead>
<tr>
<th></th>
<th>Public school segregation between whites and...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Blacks</td>
</tr>
<tr>
<td>TOTAL SCHOOL SEGREGATION (H)</td>
<td>.379</td>
</tr>
<tr>
<td>INTERDISTRICT Portion</td>
<td>.272</td>
</tr>
<tr>
<td>Proportion</td>
<td>71.8%</td>
</tr>
<tr>
<td>INTRADISTRICT Portion</td>
<td>.107</td>
</tr>
<tr>
<td>Proportion</td>
<td>28.2%</td>
</tr>
</tbody>
</table>

Average Intradistrict Segregation (H)

<table>
<thead>
<tr>
<th></th>
<th>ALL DISTRICTS</th>
<th>DISTRICTS IN LARGE MSAs</th>
<th>DISTRICTS IN SMALL MSAs</th>
<th>RURAL DISTRICTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.049</td>
<td>.053</td>
<td>.058</td>
<td>.047</td>
</tr>
<tr>
<td></td>
<td>.066</td>
<td>.057</td>
<td>.063</td>
<td>.050</td>
</tr>
<tr>
<td></td>
<td>.068</td>
<td>.070</td>
<td>.071</td>
<td>.050</td>
</tr>
<tr>
<td></td>
<td>.040</td>
<td>.047</td>
<td>.053</td>
<td>.045</td>
</tr>
</tbody>
</table>

27. See infra Appendix, Figure 3.
Unlike white/black segregation, which rose slightly in the 1990s, white/Hispanic public school segregation declined substantially in the 1990s though not in all states. Nonetheless, white/Hispanic segregation was still quite high in 2000—considerably higher, in fact, than white/black school segregation. The bulk of white/Hispanic segregation is attributable to interdistrict segregation, largely because Hispanic students are concentrated in just two states, Florida and Texas. Moreover, as with white/black segregation, white/Hispanic public 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, where the Hispanic population is greatest, white/Hispanic segregation is quite high, again largely due to segregation between school districts within these states.

C. 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 a more local level. Specifically, we examine whether and how local changes in school segregation are related to local changes in residential segregation. If changes in school and residential segregation are indeed correlated, 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 changes in school assignment practices—including, potentially, a retreat from active school integration efforts, a return to neighborhood schools, or changes in school catchment area boundaries—is driving the increases in school segregation.

29. See infra Appendix, Figure 4.
30. A school catchment area is the geographic area from which a school draws its student population. In some districts, schools may draw students from anywhere in the
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; thus, county-level analyses are a good proxy for district-level analyses in all states except Texas and Oklahoma.

1. 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 into the second quadrant of the graph, indicating that they experienced declining residential segregation but rising school segregation. White/black school segregation rose the most (and residential segregation declined least) in four Deep South states: Alabama, Arkansas, Louisiana, and Mississippi.

Figure 6 shows changes in white/Hispanic residential and school segregation; in contrast, most states fall into the first and third quadrants, suggesting 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 intercounty residential patterns, except in Texas and Florida.

2. 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 residential and school segregation at the MSA level. The South contains 128 MSAs. Of these, 17 contained more than one million residents in 1990, and 19 more contained at least 500,000 residents. The rest were small MSAs of less than half a million people.

Figure 7 shows a plot of 1990 white/black school segregation levels (on the vertical axis) against white/black residential segregation levels (on the horizon axis). The size of each circle is proportional to district; in this case, catchment areas are coterminous with district boundaries. In other cases, catchment areas are geographic subsets of districts. If there is substantial residential segregation within a school district, then school catchment area boundaries within districts play an important role in shaping school segregation patterns.
the black population of the MSA. Recall that values of $H$ above 0.40 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 forty-five degree diagonal on the figure)—meaning that the school systems in these metropolitan areas had been largely successful in integrating the schools, despite sometimes very high levels of residential segregation. The Louisville, Kentucky and Tampa, Florida MSAs are the most striking examples of this trend: 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, Alabama; Richmond, Virginia; and Atlanta, Georgia 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 because 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 zero. 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 more effectively ameliorating the effects of residential segregation by creating racially integrated school systems. The slope (0.71) of this line indicates that, on average, public school segregation in 1990 was twenty-nine percent 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 forty-five degree line in Figure 8 than in Figure 7. The MSAs well below the diagonal in 1990\(^3\) have moved closer to the diagonal in 2000,\(^3\) a result of increasing school segregation and (generally) decreasing residential segregation. The slope of the fitted line is now steeper (0.87), meaning that, on average, in 2000, public school segregation within an MSA was only thirteen percent 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 forty-five degree diagonal—public school segregation was greater than residential segregation in those 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 were far below the diagonal in 1990, 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.

3. 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 the MSA—a situation that is generally not the case. Given the Supreme Court's 1974 ruling in *Milliken v. Bradley*,\(^3\) disallowing interdistrict (and thus, intercounty) desegregation remedies except when the state can be shown to have contributed to segregation by its

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31. See infra Appendix, Figure 7.
32. See infra Appendix, Figure 8.
delineation of school district boundaries,\textsuperscript{34} school desegregation policies are limited in their ability to ameliorate patterns of interdistrict 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 through 13 are similar to Figures 7 through 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 of relationship between residential and school segregation is evident for counties as for MSAs, though it is 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 County, Maryland, 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 County, Kentucky (Louisville); Pinellas County, Florida (St. Petersburg); Mecklenburg County, North Carolina (Charlotte); Chatham County, Georgia (Savannah); Davidson County, Tennessee (Nashville); and East Baton Rouge Parish, Louisiana (Baton Rouge). In these counties, public school segregation efforts had largely succeeded by 1990 in overcoming high levels of intracounty 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. 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 fifty counties with the largest black populations was toward decreasing residential segregation (the average change in $H$ was -0.042) and increasing school 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,

\textsuperscript{34} See id. at 744-45.
so while school segregation in 1990 within a county was, on average, forty percent lower than residential segregation within the same county, in 2000, school segregation levels averaged only twenty-seven percent below residential segregation, a one-third decline in the effectiveness of school integration efforts between 1990 and 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 decision in Brown v. Board of Education, 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 Professor Charles Clotfelter argues, 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.

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 1997–1998. In addition, the fact that intercounty public school segregation is greater than intercounty residential segregation suggests that white private school enrollment rates in the South are

38. Reardon & Yun, supra note 9, at 3.
higher, on average, in counties with larger percentages of black students, as demonstrated above in Tables 2 and 3. Moreover, a number of national studies have found some evidence of continued 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. Moreover, research suggests that racial differences in private school enrollment rates cannot be explained by racial differences in income and socioeconomic status. Thus, the weight of existing evidence suggests that racial preference (preference for white classmates) remains a factor in choices made by some white families to enroll students in private school, though it is not clear whether such preferences are factors that are as important now as they were in the 1970s.

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 to 2000 using county-level counts of school-age children enrolled in public and private schools, broken down by race/ethnicity, from the 1970 to 2000 Censuses.

1. Trends in Private School Enrollment in the South

The white private school enrollment rate increased sharply—from seven percent to nearly ten percent—in the South during the 1970s, as evidenced in Table 4, even as it declined in the rest of the country.41 Black private school enrollment rates increased slightly in both the South and the rest of the United States during the same period. Private school enrollments were basically unchanged in the South in the 1980s, but increased again in the 1990s, particularly among whites, for whom rates increased from ten percent to thirteen percent in the 1990s. Hispanic private school enrollment rates declined in the 1980s and 1990s—most likely as a result of the changing income demographics of the Hispanic population in the South.

Table 4. Trends in Private School Enrollment in the South, by Race, 1960–2000.42

<table>
<thead>
<tr>
<th>Year</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>6.5</td>
</tr>
<tr>
<td>1970</td>
<td>7.0</td>
<td>2.1</td>
<td>7.8</td>
<td>5.8</td>
</tr>
<tr>
<td>1980</td>
<td>9.7</td>
<td>3.3</td>
<td>7.9</td>
<td>8.1</td>
</tr>
<tr>
<td>1990</td>
<td>9.8</td>
<td>3.3</td>
<td>5.8</td>
<td>7.8</td>
</tr>
<tr>
<td>2000</td>
<td>12.7</td>
<td>4.0</td>
<td>5.2</td>
<td>9.1</td>
</tr>
</tbody>
</table>

41. REARDON & YUN, supra note 9, at 12.
42. The authors reviewed supra census 9, at 12. Hispanic rates from 1970 are not exactly comparable to later years because of a different classification of Hispanics in the 1970 Census.
There was considerable variation among the southern states in the extent of the increase in the white private school enrollment rate. The states with the most dramatic increases in white private school enrollment rates in the 1970s were the District of Columbia, Delaware, South Carolina, Georgia, Alabama, Tennessee, Mississippi, and Florida, each of which had a more than four-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, no southern state, except the District of Columbia, experienced more than a two percent increase in white private school enrollment rates; in fact, many experienced some decline in white private school enrollment rates in the 1980s. In the 1990s, however, white private school enrollments grew in most southern states, mirroring a national trend. Black private school enrollment rates increased 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. 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 a decade of relative stability in private school enrollments in the 1980s. It is unclear what factors have driven the growth in private school enrollment rates in the 1990s.


A more detailed description of white flight to private schools can be obtained by 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 through 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 2000. In 1970, white private schooling rates appear unrelated to the black population share, except when the black proportion was sixty percent or greater. In 1980 and subsequent years, however, the relationship is much stronger for predominantly white counties, where white private school enrollment rates are low; for predominantly black counties, they are very high. One measure of how much stronger the relationship is in 1980 than in 1970 is the

43. See infra Appendix, Figure 14.
44. See infra Appendix, Figure 15.
45. See infra Appendix, Figure 16.
change in the value of $R^2$: in 1970, black population proportion explains twenty-five percent of the variance in white private school enrollment rates; in each of 1980, 1990, and 2000, the black population share explains sixty-five percent to sixty-six percent of the variance. The consistency of this pattern from 1980 to 2000 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 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 through 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 fact, we see evidence that intercounty and interdistrict white/black residential segregation increased slightly during the 1990s, as shown previously in Tables 2 and 3, suggesting some residential sorting based on race. Nonetheless, the trend is weak, and does not appear to have weakened the pattern of white enrollment in 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, we need to better understand the factors that influence white private school enrollment rates. One possibility is that white private school enrollment rates remained 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 have retained substantial
enrollments despite local demographic and segregation changes. Another possibility is that the relationship between white private school enrollment rates and black population shares is not driven by racial preferences, but by some third factor—such as public school quality (or perceived quality), white/black income differences, or religious preferences—that is correlated with both the black proportion of the local population and white private school enrollment rates. More careful examination of the relationships among demographics, residential segregation, public school segregation, and private school enrollment rates is needed. Nonetheless, it is clear from Figures 16 through 19 that white private school enrollment patterns have not changed substantially in the last two decades, and so are unlikely to account for changes in public school segregation patterns.

**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 most of the South. Given the relatively small magnitude of the increase, this trend by itself might not be great cause for concern. The increase in school segregation, however, came during a decade in 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, forty percent 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 twenty-seven percent 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 even 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 2000, county-level white private school enrollment
rates were tightly linked to the black proportion of the county school-age population: 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.

Finally, we note that these trends may represent the leading edge of a rapid process of resegregation of public schools in the South. The U.S. 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 beginning to take effect as districts are released from desegregation orders. A number of important districts recently have been declared unitary, but so recently that the effects of those orders are not yet evident in our data. If this courts' trend of declaring districts unitary continues, it is likely that the resegregation of the South will accelerate rapidly.
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 White/Black Residential and Public School Segregation, Southern States, 1990–2000.

Figure 7. Relationship Between Residential and Public School White/Black Segregation, All Southern MSAs, by Size of MSA Black Population, 1990.

Figure 8. Relationship Between Residential and Public School White/Black Segregation, All Southern MSAs, by Size of MSA Black Population, 2000.
Figure 9. Relationship Between Residential and Public School White/Black Segregation, All Southern MSAs, by Size of MSA Black Population, 1990–2000.

Figure 10. Relationship Between Residential and Public School White/Black Segregation, All Counties in Southern MSAs, by Size of County Black Population, 1990.
Figure 11. Relationship Between Residential and Public School White/Black Segregation, All Counties in Southern MSAs, by Size of County Black Population, 2000.

Figure 12. Relationship Between Residential and Public School White/Black Segregation, All Counties in Southern MSAs, by Size of County Black Population, 1990–2000.
Figure 13. Relationship Between Residential and Public School White/Black Segregation, 50 Largest Counties in Southern MSAs, by Size of County Black Population, 1990–2000.

Figure 15. Change in Black Private School Enrollment Rates, by State and Decade, Southern States, 1970–2000.

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. White Private School Enrollment Rates by Black School-Age Population, Southern Counties, 1990.
Figure 19. White Private School Enrollment Rates by Black School-Age Population, Southern Counties, 2000.