A Second Stand in the Schoolhouse Door: Are Public Schools Resegregating?

Michael Finnegan *
Federal Reserve Bank of Richmond

Erik Johnson †
University of Alabama

Laura Razzolini ‡
University of Alabama

Amanda Ross §
University of Alabama

February 13, 2019

*The views expressed in this paper are those of the authors and do not necessarily reflect the position of the Federal Reserve Bank of Richmond or the Federal Reserve System.; Email: Mike.Finnegan@rich.frb.org
†University of Alabama, Department of Economics, Finance, and Legal Studies; Email: ebjohnson5@cba.ua.edu
‡University of Alabama, Department of Economics, Finance, and Legal Studies; Email: lrazzolini@cba.ua.edu
§University of Alabama, Department of Economics, Finance, and Legal Studies; Email: aross@cba.ua.edu
Abstract

ABSTRACT We revisit the issue of whether or not pubic schools are resegregating. The previous research that has examined the possibility of resegregation has focused on the release of schools from desegregation orders. Court ordered desegregation was commonly achieved by merging schools and/or busing students to achieve the unitary status of a single, rather than a segregated school system. In the early 1990s, three Supreme Court rulings allowed for these desegregation plans to be terminated. After being released from a court order, schools were free to remove busing plans and it is possible that districts could resegregate. We expand on this literature in three ways: allowing school district boundaries to change, including rural areas, and by examining differences in behavior between early released districts and those released later. We find that for those districts released from a court order, the boundaries did not affect resegregation. Our results suggest that the entire country was affected by these desegregation orders, not just urban areas. Finally, we find similar segregation patterns in both Southern and Non-Southern states, which is different from the previous research who has found that these effects are concentrated in the Southern states.

JEL Codes: R21; R3; R31

Keywords: resegregation; desegregation court orders; schools
1 Introduction

In the landmark decision Brown v. Board of Education of Topeka (1954), the U.S. Supreme Court ruled that "separate, but equal" was inherently unequal. The decision marked the beginning of court-ordered desegregation throughout the United States.¹ Over the next several decades, the goals of Brown appeared to be achieved, as schools became integrated and the educational and life outcomes of black children improved (?; ?; ?; ?). While Brown put many schools under court order to eliminate their segregation practices, this procedure was never intended to be a permanent solution. In the 1991 decision Board of Education of Oklahoma v. Dowell, the Supreme Court ruled that once districts had been declared unitary, they would be released from federal oversight. That is, if it was determined that a district was not operating under a racially-based dual school system, then it was free to assign students to schools as wished. This marked the end of court ordered desegregation and, at the same time, many saw racial segregation increase (?; ?), a development now referred to as resegregation.²

In this paper, we revisit the effect of the release from court orders on resegregation. ?, ?, and ?, have considered the effects of the release from the court order on segregation, generally finding that release is associated with an increase in segregation.³ To build on this literature, we add three additional components. First, we consider the possibility that school district boundaries change. It is possible that changes in segregation that are observed may be due to school districts splintering or annexing, which suggests the boundaries used may be important (?). Second, we examine both urban and rural areas, as previous research has focused on urban areas only. While segregation is typically considered to be an urban area problem, it is possible that rural areas are also experiencing increases in segregation.⁴

¹? discuss the different ways desegregation occurred in the South.
³Numerous papers have used data from the Charlotte-Mecklenberg School District after its release from the desegregation court order to study the effect of vouchers on student outcomes, see ?, ?, ?, ?, ?, ?
⁴? created a historical database on segregation based on the Census next-door neighbor data base. Their
Finally, we revisit if there are differences between Southern and Non-Southern states. While existing research has found that the increase in segregation happens predominately in the Southern states, because we consider a larger sample with rural areas, we believe our results may be different from those of other researchers. Overall, our analysis will provide additional insights into how release from court orders is affecting segregation, specifically if it is causing segregation to increase.

We draw upon the Common Core Data from the Center for Educational statistics which contains information on enrollment for all public schools. Using this enrollment data, we are able to create the dissimilarity index and the black-white exposure index to see the effect of release from a federal court order on segregation. To conduct our analysis, we follow the work of ?, ?, and ?.\footnote{Provided evidence that there is some randomness in when school districts were released, primarily due to differences in the length of the court docket.} We compare school districts that were released from a court order over our sample period to districts that are still under a court order. As we can see in Figure 1, both of these types of school districts have seen similar increases in the dissimilarity index over time. However, districts that were never under a court order have shown declines in segregation over time. These figures show that there are differences in behavior between those districts that were at any time under a desegregation order and those that were never under such an order. For our empirical strategy, we will focus on those districts that were under a court order, comparing those that were released from the desegregation order to those that are still under a court order.

The previous literature has focused primarily on the effects of release from a court order on within district resegregation, considering the contemporaneous school district boundaries only. However, there may be across school district boundary segregation as well. There are frequent school district secessions and annexations. By only using contemporaneous boundaries and not considering the possibility that these boundaries have changed, we may be missing the effects of resegregation. We address this by looking at the effect of court results suggest that segregation is a problem in both urban and rural areas.
orders on segregation using contemporaneous and static boundaries. Our results are similar, which suggests that there is within district resegregation occurring.

Thus far, the literature has focused on resegregation as a predominately urban phenomenon. We build on this by including rural areas in our analysis. We find that in the full sample, segregation is increasing. As we further expand our sample to larger and larger areas, we continue to find this effect, suggesting that this is going on in both urban and rural areas.

Finally, we use a longer sample than the previous literature. \[\text{compared school districts that had never been released to those that were released between 2000 and 2010. We conduct the same analysis for the entire sample and find similar results to him. However, we then compare the school districts that were released between 2000 and 2010 to those that were released before 2000. We find that these districts are behaving very similarly, suggesting that this is not a new phenomenon and that these behaviors are persistent over time.}\]

Our results have important implications for the literature on segregation and resegregation. First, we incorporate the possibility of changing boundaries into our analysis. This is important, because addressing this problem involves understanding if the problem is being caused by changes at the extensive margin or the intensive margin. Second, we consider rural areas as well as urban areas. Thus far, segregation has been considered to be predominately an urban problem. By considering urban areas, we are able to see if this has expanded to rural areas as well. Finally, we examine the long-term effects of release from these desegregation orders. By comparing the newly released districts to the previously released districts, we are able to see if there are differences in behavior. We find no significant differences over time between the two groups, suggesting that this problem is persistent.
2 Segregation, Desegregation, and Resegregation

In 1896, the Supreme Court ruled in *Plessy v. Ferguson* that segregation was legal so long as the accommodations were equal for blacks and whites. In practice, while there were separate facilities they were not equal in almost all situations. Nearly 60 years later, *Brown v. Board of Education of Topeka* overturned the doctrine of “separate, but equal” and consequently pushed the United States towards integration of its public facilities. However, it took over a decade for public schools in the South to be forced to integrate their facilities. Students of color that still attended segregated schools began suing school districts (with the backing of groups such as the NAACP) in an effort to force integration. Eventually, court cases such as *Green v. County School Board of New Kent County*, *Stout v. Jefferson County Board of Education*, and *Lee v. Macon County Board of Education* led to desegregation court orders, mandating that the school districts in question begin integrating.\(^6\)

Extensive measures had to be taken in many situations to desegregate. In the *Swann v. Charlotte-Mecklenburg* decision in 1971, the Court ruled that extensive measures could be taken, if necessary, to achieve integration. These extensive measures included actions such as merging schools, cross-town busing, and creating non-contiguous zones. However, there still remained questions about if and when new school districts could form. Specifically, schools have a history and a preference for local control. As school districts become larger and larger, this desire to have education more local is consistent with previous policies unrelated to segregation. However, in 1972, the Supreme Court ruled in *Wright et al. vs. Council of the City of Emporia et al.* that the presence of a predominately white city school in a predominately minority district would impede integration efforts and therefore would not be allowed. The Supreme Court did limit the degree to which school districts could be forced to annex other districts in the *Milliken v. Bradley* (1974) decision. In this decision, the Court ruled that unless the suburban districts or the state contributed to segregation in the

---

\(^6\)At the same time, in an attempt to circumvent integration, the South saw a rise in private schools catered to wealthy white families, commonly referred to as "segregation academies." Private schools are not subject to the same integration requirements as the public school system.
central city, the suburban school districts could not be included in the remedy. This decision limited the ability of metropolitan-wide policies and initiatives to help achieve integration.

From the mid-1970s until the 1990s, there were no significant decisions from the Supreme Court regarding public school desegregation. Over this period of time, there were some new segregation orders in the 1970s, which gradually declined over time. By the 1990s, there were essentially no new desegregation orders put on schools, though almost all schools that had been placed under court order were still under supervision.\(^7\)

In 1991, another dramatic change occurred regarding public schools and racial integration. *Board of Education of Oklahoma City v. Dowell* defined the requirements for a school district to achieve unitary status, at which point the district would be permanently released from the desegregation court order. While the schools must show that they have met and are in compliance with the six Green factors (student assignment, faculty assignment, staff assignment, transportation, extracurricular activities, and facilities), once the desegregation court order is lifted, the school districts are allowed to behave however they want, free from the possibility of being placed under a desegregation order again.

After the *Oklahoma City v. Dowell* decision, two additional Supreme Court rulings further weakened these desegregation court orders. In 1992, the Court ruled in *Freeman v. Pitts* that the courts have the ability to relinquish control of the school district in incremental stages, before compliance had been achieved in every aspect. This meant that if school districts had achieved four of the six Green factors, they could be partially released from a desegregation order. Then, in 1995, the Supreme Court ruled in *Missouri v. Jenkins* that the state of Missouri was only required to correct *de facto* racial inequality, not *de jure* segregation. *De jure* segregation is within school district segregation, while *de facto* segregation is across district segregation. In other words, this decision effectively told states that across district segregation was legal, but within district segregation was illegal. These three cases, are viewed by many legal scholars as reducing the effectiveness of court desegregation orders.

\(^7\)Some schools were released from court order prior to 1990. In our sample, there are approximately 12 districts that met this criteria.
Figure 2 shows a histogram of frequency of release from desegregation court orders. We see that prior to 1998, there were very few school districts that were released from federal desegregation orders. However, starting in the late 1990s and continuing into the 2000s, there was a huge spike in the number of districts that were released from the federal court mandate each year.

3 Previous Studies

Our current analysis examines the effect of the removal from desegregation court orders on resegregation. In the economics literature, there are three main papers that have examined this issue, ?, ?, and ?, which will will discuss in more details below.

? examines the impact of the dismissal from a desegregation order on district-level outcomes. Before looking at district-level outcomes, Lutz must establish that there is a causal link between release from a court order and resegregation. Using an event study design, he shows that terminations from a desegregation order produces a moderate increase in racial segregation. However, he finds that most of the resegregation is occurring in the South. To conduct his analysis, he restricts his sample to only large school districts with enrollments over 10,000 students.\(^8\)

? find similar results to Lutz but makes three additional contributions. First, the paper uses a discrete-time hazard model to show that the timing of court dismissal is unrelated to the district’s current measure of integration. Second, an improved data set with regards to the information on desegregation orders is used. Third, the paper finds evidence of court dismissals causing larger increases in segregation in elementary grades and in districts with low prediss dismissal segregation levels. However, this could be do to bias in the dissimilarity index that occurs when minority populations are small (see ?).

\(^8\)Lutz also considered the effect of changes in private school enrollment as a possible mechanism for resegregation. He does not find that private school enrollment is affecting segregation.
restrict the analysis to the 100 largest districts in the South and Border states. Their results suggest that an increase in their measure of racial isolation, i.e. the percent of black students attending schools 90-100 percent nonwhite, increases after dismissal, but only due to increased enrollment by other minorities. In other words, it is not the policies or efforts of the individual schools or school districts that are causing schools to resegregate, but rather an increase in other non-white populations (i.e. Hispanic and Asian students). We draw upon a significantly larger sample in order to see how segregation is changing in public schools across the country.

Researchers outside of economics have begun to consider the effect of school district secessions on segregation. looked at how the splintering of school districts in Jefferson County, Alabama has changed the nature of segregation. Her results suggest that in the late 1960s, the majority of segregation was within school districts. By 2005, however, she had found that most segregation was between school districts. Her results suggest that boundaries are important and may be contributing to how public schools are resegregating.

4 Data

To conduct our analysis, we use a national panel of all K-12 schools from 1989 to 2014. For a given school in a given year, enrollment counts by race are obtained from the National Center for Education Statistics via the Common Core of Data survey. Using these enrollment counts, we are able to construct our segregation indices to measure the level of segregation within a school district. We use the dissimilarity index and the exposure index to conduct our analysis, as these are the two most commonly used segregation indices in the literature. The traditional dissimilarity index is typically expressed as:

$$D_t = \frac{1}{2} \sum_{i=1}^{n} \left| \frac{b_i}{B_t} - \frac{w_i}{W_t} \right|,$$  

(1)
where \( n \) is the number of schools, \( B_t \) (\( W_t \)) is the number of black (white) students in the district at time \( t \), \( b_i \) (\( w_i \)) is the number of black (white) students in school \( i \) in the district. Recall that the dissimilarity index is a measure of the evenness with which two groups are distributed across an area.

We also use the black-white exposure index, which takes the form:

\[
E = \frac{1}{B_t} \sum_{i=1}^{n} b_i \cdot \frac{w_i}{t_i},
\]

where \( B_t \) is the number of black student in the district at time \( t \), \( b_i \) (\( w_i \)) is the number of black (white) students in school \( i \) and \( t_i \) is the number of students in school \( i \) in the district. The exposure index is a measure of the likelihood that the average black student will interact with a white student.

We match the Common Core data with a measure of poverty, i.e. the percent of children within the district that are living below the poverty line, obtained from the Small Area Income and Poverty Estimates (SAIPE) program produced by the U.S. Census.

To enhance our analysis, we vary the definition of a school district boundary three different ways. First, we use contemporaneous district boundaries to measure segregation within a district as defined in the year of observation. In other words, this method uses whatever the current school district boundaries are, which means the area included may change over time if part of the district either splits off or if multiple districts merge. However, since school district boundaries vary year-to-year, we also construct a measure of segregation using static district boundaries. When we use the static boundaries, the school district boundaries in all years are defined by the schools that reside in a given district’s boundaries in 1989. This allows us to account for the possibility that districts are changing boundaries as an alternative way to resegregate. Finally, to check whether or not segregation is changing within the larger geographic area that many districts may reside within, we measure segregation at the 2010 county level.

To construct these boundaries we use the shape files detailing the geography of school
district lines, which is derived from the National Center for Education Statistics (NCES). For static boundaries, we use the earliest available shape file and hold the district lines of 1989 constant throughout our empirical analysis. Holding district lines constant minimizes the measurement error of the two typical indices, by mitigating the changing composition of school districts; hence, changes in segregation levels become easier to track over time.

We also include a variety of control variables in our analysis, similar to what was used in ?. Our control variables include the percentage of the district that is white, the percentage of the district that is white squared, the percentage of the district that is Hispanic, the percentage of the district that is Hispanic squared, the total district enrollment, the total district enrollment squared, the total district enrollment cubed, and the percentage of children (under 18) in the district that are living in a household below the poverty line. The controls are kept time-invariant and are chosen based on the first year the district appears in the panel.9 While time-variant controls may be endogenous to release from the desegregation order as students sort in and out of districts in response to the removal of a desegregation court order, keeping the district-level controls fixed allows flexible control over district characteristics.10

The data we use on school desegregation orders was obtained from ProPublica, which sourced the data from Stanford University, the Department of Justice, the Department of Education, and ProPublica research. We also have data on school district secessions from EdBuild11. Future work will use this data to examine the behavior of school districts that remained under court order. We will discuss this research and methodologies in the Conclusion.

Summary statistics are presented in Table 1. The first column shows districts that were released between 1991 and 2000, column (2) shows the districts released between 2001 and 2010, column (3) lists the districts never released, and the final column shows the districts

9Note that with the contemporaneous boundaries, if a school district splits off then it will appear later in the panel. Therefore, for our analysis we will not have a balanced panel.

10This is consistent with the arguments and methods used by ?.

11See https://edbuild.org/content/fractured/methodology for methodology used by EdBuild to define a secession.
that were never under a court order. We can see in this table that the districts that were never under a court order are very different from those that were ever under a court order, suggesting that these schools would not be a valid control group. We see in the first two columns that those districts that were released earlier have higher levels of segregation than those released later. This is not surprising as those districts that were released earlier have had more time to end desegregation practices, such as busing, and thus may have higher levels of segregation. However, the never released group in column (3) looks fairly similar to the districts that have been released in terms of observable variables. Therefore, like we will use this group as the control group in our empirical analysis.

5 Estimation Strategy

To consider our estimation strategy, we draw upon the dissimilarity index and the exposure index.

For the purpose of this study, we use the models similar to those specified in (?). First, we use the following:

$$\Delta y_{kt} = \beta \Delta L_{kt} + \theta_{kt} + X_k + \Delta \epsilon_{kt}$$  \hspace{1cm} (3)

where $y_{kt}$ is the segregation index (either the dissimilarity index or the black-white exposure index) in district $k$ in time $t$, $\theta_{kt}$ is a vector of district-year fixed effects, and $X_k$ are district controls using the 1989 data.\textsuperscript{12} $L_{kt}$ is the number of years since dismissal for dismissal years 1 through 10. For all years prior to dismissal, this variable is equal to zero.

Next, we want to see how these effects change over time. To examine this, we estimate the following equation:

\textsuperscript{12}Similar to we include the following controls: city district indicator, percent of enrollment that is white, percent of enrollment that is Hispanic, number of students enrolled, number of students enrolled squared, number of students enrolled cubed. Furthermore, using the 2000 decennial census we include the percent of children 18 years or younger that are living in poverty for the county the district resides in.
\[
\Delta y_{kt} = \sum_{g=-3}^{10} \beta_g \Delta D_{g,kt} + \theta_{kt} + \Delta \epsilon_{kt}
\]

where \( D_{g,kt} \) is the dismissal indicator equaling one if district \( k \) at time \( t \) was released from its order \( g \) years ago (with \( g = 1 \) during the year of dismissal). Furthermore, \( g = -3 \) represents 3 or more years previous to dismissal and \( g = 10 \) represents 10 years since dismissal.

Taking the difference allows us to control for time-invariant district characteristics and considerable efficiency gains to the estimators of interest, i.e. \( \beta_g \) for \( g = -3, \ldots, 4 \), while the fixed effects control for changing demographic shocks to a district. This constructed event study design assumes that the segregation outcomes would have been the same had the treated districts not been dismissed. Therefore, \( \beta_g \) for \( g = -3, \ldots, 0 \) should not be significantly different from zero, while \( \beta_1 \) should reflect the average districts immediate segregation response following dismissal. So far this specification mimics \( ? \) and his justifications have been summarized. The identifying assumption of our analysis, like the previous literature, is that absent the release from the court order, the dismissed districts would have similar outcomes as the control districts, which in this case are those districts that are still under court order.

6 Results

We begin our analysis by examining if using different school district boundaries impacts the effect of the release from a desegregation order on segregation. Specifically, like the literature, we consider first the contemporaneous boundaries. This means that we are calculating the relevant index based on that year’s school district boundary. Alternatively, we could allow for the fact that school districts are changing their boundaries over time to meet the desegregation order, as was suggested by the Missouri v. Jenkins case. In this case, we use the boundaries from the earliest year of our sample, 1990, and calculate the segregation indices each year assuming the school districts are the same as they were in 1990.
Our results from this analysis are presented in Table 2. Column (1) shows the results using the contemporaneous boundaries, column (2) presents the static boundaries, and column (3) uses the county boundaries. The top panel uses the dissimilarity index as our outcome variable and the bottom panel uses the exposure index. Standard errors are reported in parenthesis below.

Looking at Table 2, we see that the effect of dismissal from a court order is not sensitive to whether the contemporaneous or static boundaries are used. We find that after dismissal, there is an increase in the dissimilarity index, which suggests that segregation is increasing after districts are released. We also find that the black-white exposure index is decreasing, which means that blacks are having less contact with whites. Both of these are consistent with the argument that after being released from a desegregation court order, segregation increases. However, the results are not statistically different from one another using the contemporaneous boundaries or the static boundaries. This suggests that school districts are not seceding or annexing other districts in order to resegregate after release from a court order. We see similar effects at the county level, though these estimates are slightly smaller. Overall, this suggests that release from a desegregation court order is causing within district resegregation, through means such as ending busing, not across district resegregation.

Next, in Table 3 we break up the results by school district size. The previous literature has focused primarily on large school districts, while our sample includes both small and large districts. In column (1) we include all districts, column (2) only those districts with a total enrollment over 2,000 students, and in column (3) only districts with a total enrollment over 10,000. We see that both the dissimilarity index and the black-white exposure index are consistent across all three columns. This suggests that resegregation is occurring across that country and that it is not just a large school phenomenon.

13 We use the county boundaries because in many areas, primarily in the South where segregation is a larger concern, the entire county was the initial school district. As there may have been a desire for local control, which has occurred over time independent of segregation, we have seen these county-wide school districts become more and more rare.

14 Like ?, we also considered private school enrollment. While we did observe a significant decline in private school enrollment in several states, we did not find that this was significantly affecting our results.
Finally, in Table 4 we break up our analysis by states in the South versus the Non-South. Column (1) reports the full sample results that have been shown in previous tables, column (2) shows the Southern states, and column (3) the Non-Southern states. Previous research has suggested that observed resegregation is happening in the South, while there has been little effect found in the Non-South. In column (2), consistent with this literature, we do find that there is an increase in the dissimilarity index and a decrease in the exposure index, consistent with such increases in segregation. However, unlike the previous literature, we find similar effects when we look at the Non-Southern states as well. This is suggesting that the previous literature, which has focused primarily on large school districts, has been missing a way that segregation may be increasing in the Non-Southern states. Specifically, it may be that the more rural districts in the Non-South are resegregating, fact that the previous literature that has focused on urban districts only would have been unable to capture.

In Figure 2, we present the coefficient estimates from Equation (4) with the relevant confidence intervals. Figure 2 presents the results using the dissimilarity index as the measure of segregation. As we see in the Figure, in the three years before a district is released there is no significant difference between the released districts and those districts still under a court order. This suggests that we do have an appropriate counterfactual as the pre-trends are similar. Then, after release, we see that over time the dissimilarity index is increasing steadily. In other words, these results suggest that school districts that are released from the desegregation court order are resegregating.

Figure 3 presents similar results using the black-white exposure index. Again, we see that the pretrends are not statistically different from one another, suggesting that we have a valid counterfactual. After the release from court order, we see a decrease in the exposure of black students to white students, which becomes statistically significant approximately four years after release. While this measure does not change as dramatically as the dissimilarity

---

15 We use the Census region definitions to define Southern states. This includes Alabama, Arkansas, Delaware, the District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
index, it provides further evidence that segregation is increasing in those districts that were released from the desegregation court orders.

7 Conclusions and Future Research

We expand upon the existing research by examining the effect of release from a court order on segregation. We add several important dimensions to this analysis that have not been considered. First, we allow for boundaries to changes, specifically we consider if these measures of segregation vary based on if we use contemporaneous or static boundaries. We do not find different effects, which suggests that resegregation through release from court orders is due to within district resegregation, not across district actions. Second, we use a larger sample than the previous literature which includes all school districts. Prior research has relied primarily on urban districts. Using the full sample, we continue to find that segregation is increasing after release from a court order. This is suggesting that these effects are occurring across the country and not just in urban areas. Finally, when we consider the entire country and not just urban areas, we find that segregation is increasing in both the Southern states and the Non-Southern states. Previous research has found these effects focused in the South only. Our conflicting results suggest that Non-Southern rural areas may be experiencing increases in segregation that were undetected by the previous literature.

Understanding if and how resegregation is occurring is important for policy makers going forward. Previous research has shown that desegregation helped to improve black student outcomes (?, ?; ?, ?). If release from a desegregation court order is allowing school districts to resegregate, this may have adverse effect on black student outcomes. Understanding if resegregation is occurring, as well as how it is occurring and where, is important for designing effective policy to address these issues.

Future work will consider the effect of changing boundaries on resegregation in districts that are still under a court order. For example, consider the Jefferson County School District
in Alabama, which includes the city of Birmingham. Note that Jefferson County is still under a court desegregation order. In 2005, the city of Trussville, a predominately white area in Jefferson County, split off and formed its own district. Figure 4 shows the Jefferson County School District and in black is the section that split off to form the new Trussville County School District. When this occurred, both the original Jefferson County School District and the new Trussville School District remained under a desegregation order.

Consider how this secession affected segregation in the two school districts. In 2004, the Jefferson County school district was 66.3 percent white and 31.1 percent black, with a dissimilarity index of 49.7 percent. In 2005, the new Trussville school district was 87.4 percent white and 8.4 percent black, while the remaining area in the Jefferson County School District was 60.8 percent white and 35.4 percent black. Based on these percentages, we can see that a predominately white neighborhood split off, creating two districts that are more racially homogeneous than the original district. Figure 5 shows the two different Dissimilarity indices. The solid line represents the contemporaneous boundaries, which suggest that segregation has remained constant. However, if we use the original school district boundaries, we see that segregation is increasing in the area. This suggests that schools currently under a desegregation order may be finding other ways to resegregate without being released. Future research will examine how this extensive margin may be affecting resegregation.

This issue of secession and annexation of school districts is of growing interest as many schools that have not achieved unitary status have begun use these methods as new strategies to resegregate. In most cases, a secession is justified along the lines of local control, as the United States has typically considered education to be a local government policy and initiative. Understanding if resegregation is occurring, as well as how it is occurring, is important for researchers and policy makers in order to design effective methods and

---

16? examined both between district and within district segregation in Jefferson County. She found suggestive evidence that a large proportion of the resegregation that is occurring is due to between district segregation.

17 For example, the Birmingham suburb of Gardendale was recently in a court battle to create its own school district. This request was denied because there were concerns that this decision was motivated to create a predominately white school.
strategies to help promote black students.
Table 1: Summary Statistics by Release Status

<table>
<thead>
<tr>
<th></th>
<th>Released 1991-2000</th>
<th>Released 2001-2010</th>
<th>Never Released</th>
<th>Never Under Order</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Dissimilarity Index</td>
<td>0.25</td>
<td>0.21</td>
<td>0.25</td>
<td>0.28</td>
</tr>
<tr>
<td>25th Percentile</td>
<td>0.09</td>
<td>0.06</td>
<td>0.08</td>
<td>0.12</td>
</tr>
<tr>
<td>50th Percentile</td>
<td>0.20</td>
<td>0.15</td>
<td>0.20</td>
<td>0.24</td>
</tr>
<tr>
<td>75th Percentile</td>
<td>0.39</td>
<td>0.31</td>
<td>0.37</td>
<td>0.41</td>
</tr>
<tr>
<td>B-W Exposure Index</td>
<td>0.11</td>
<td>0.14</td>
<td>0.12</td>
<td>0.30</td>
</tr>
<tr>
<td>25th Percentile</td>
<td>0.02</td>
<td>0.04</td>
<td>0.03</td>
<td>0.15</td>
</tr>
<tr>
<td>50th Percentile</td>
<td>0.07</td>
<td>0.10</td>
<td>0.07</td>
<td>0.24</td>
</tr>
<tr>
<td>75th Percentile</td>
<td>0.14</td>
<td>0.18</td>
<td>0.16</td>
<td>0.39</td>
</tr>
<tr>
<td>Enrollment</td>
<td>17317</td>
<td>7936</td>
<td>10564</td>
<td>2606</td>
</tr>
<tr>
<td>Percent Black</td>
<td>0.22</td>
<td>0.27</td>
<td>0.31</td>
<td>0.04</td>
</tr>
<tr>
<td>Percent Hispanic</td>
<td>0.04</td>
<td>0.02</td>
<td>0.04</td>
<td>0.05</td>
</tr>
<tr>
<td>Percent Below Poverty</td>
<td>0.18</td>
<td>0.28</td>
<td>0.26</td>
<td>0.16</td>
</tr>
<tr>
<td>Percent in South</td>
<td>0.46</td>
<td>0.93</td>
<td>0.88</td>
<td>0.23</td>
</tr>
<tr>
<td>Districts</td>
<td>105</td>
<td>240</td>
<td>358</td>
<td>11535</td>
</tr>
</tbody>
</table>

All rows represent means calculated in 1990, except for the last row, which states the total districts in that subset of the entire panel of districts.
Table 2: Impact of Desegregation Order Release by Boundary Type

<table>
<thead>
<tr>
<th></th>
<th>Contemporaneous Boundaries</th>
<th>Static Boundaries</th>
<th>County Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Δ Dissimilarity Index</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Δ Years Since Dismissal</td>
<td>0.007***</td>
<td>0.007***</td>
<td>0.005***</td>
</tr>
<tr>
<td></td>
<td>(0.0003)</td>
<td>(0.0003)</td>
<td>(0.0002)</td>
</tr>
<tr>
<td>Δ B-W Exposure Index</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Δ Years Since Dismissal</td>
<td>−0.0004***</td>
<td>−0.0003***</td>
<td>−0.0002***</td>
</tr>
<tr>
<td></td>
<td>(0.0001)</td>
<td>(0.0001)</td>
<td>(0.00004)</td>
</tr>
</tbody>
</table>

| Observations | 17,351 | 17,351 | 11,169 |
| Distincts    | 757    | 752    | 515    |
| Years        | 25     | 25     | 25     |

*p<0.1; **p<0.05; ***p<0.01

All regressions have been weighted by district enrollment size and include district-year fixed effects. Time-invariant controls, taken at the first year the district appears in the sample, include the percent of enrollment which is white, percent of enrollment which is Hispanic, number of students enrolled, number of students enrolled squared, number of students enrolled cubed, percent of enrollment below the poverty line, and percent of enrollment below the poverty line squared.

$R^2$ range between 0.03 and 0.14
Table 3: Impact of Desegregation Order Release by District Size

<table>
<thead>
<tr>
<th></th>
<th>No Restriction (1)</th>
<th>Enrollment ≥ 2,000 (2)</th>
<th>Enrollment ≥ 10,000 (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>∆ Dissimilarity Index</td>
<td>0.007*** (0.0003)</td>
<td>0.007*** (0.0003)</td>
<td>0.007*** (0.001)</td>
</tr>
<tr>
<td>∆ Years Since Dismissal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>∆ B-W Exposure Index</td>
<td>−0.0003*** (0.0001)</td>
<td>−0.0002*** (0.0004)</td>
<td>−0.0001*** (0.00002)</td>
</tr>
<tr>
<td>Observations</td>
<td>17,351</td>
<td>13,450</td>
<td>4,630</td>
</tr>
<tr>
<td>Districts</td>
<td>752</td>
<td>578</td>
<td>197</td>
</tr>
<tr>
<td>Years</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

*p<0.1; **p<0.05; ***p<0.01

All regressions have been weighted by district enrollment size and include district-year fixed effects. Time-invariant controls, taken at the first year the district appears in the sample, include the percent of enrollment which is white, percent of enrollment which is Hispanic, number of students enrolled, number of students enrolled squared, number of students enrolled cubed, percent of enrollment below the poverty line, and percent of enrollment below the poverty line squared.

$R^2$ range between 0.04 and 0.18
Table 4: Impact of Desegregation Order Release by Region

<table>
<thead>
<tr>
<th></th>
<th>Full Sample</th>
<th>South</th>
<th>Non-South</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>∆ Dissimilarity Index</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>∆ Years Since Dismissal</td>
<td>0.007***</td>
<td>0.008***</td>
<td>0.005***</td>
</tr>
<tr>
<td></td>
<td>(0.0003)</td>
<td>(0.0004)</td>
<td>(0.001)</td>
</tr>
<tr>
<td><strong>∆ B-W Exposure Index</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>∆ Years Since Dismissal</td>
<td>−0.0003***</td>
<td>−0.0002***</td>
<td>−0.001***</td>
</tr>
<tr>
<td></td>
<td>(0.0001)</td>
<td>(0.0001)</td>
<td>(0.0001)</td>
</tr>
<tr>
<td>Observations</td>
<td>17,351</td>
<td>14,725</td>
<td>2,626</td>
</tr>
<tr>
<td>Districts</td>
<td>752</td>
<td>638</td>
<td>114</td>
</tr>
<tr>
<td>Years</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

*p<0.1; **p<0.05; ***p<0.01

All regressions have been weighted by district enrollment size and include district-year fixed effects. Time-invariant controls, taken at the first year the district appears in the sample, include the percent of enrollment which is white, percent of enrollment which is Hispanic, number of students enrolled, number of students enrolled squared, number of students enrolled cubed, percent of enrollment below the poverty line, and percent of enrollment below the poverty line squared. $R^2$ range between 0.04 and 0.29.
Figure 1: Dissimilarity Index over Time
Figure 2: Change in the Dissimilarity Index for Districts Released versus Districts Never Released
Figure 3: Change in the Exposure Index for Districts Released versus Districts Never Released