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American public schools experienced a substantial reduction of black-white segregation after the Supreme Court ordered the immediate desegregation of Mississippi schools in 1969. Past research has shown that progress slowed by the 1990s, with some arguing that segregation actually began to rebound. This study is the first to examine enrollment data for each decade between 1970 and 2010 for a comprehensive set of districts across the country and also the first to include data for 1980 for a national sample of districts. It provides definitive evidence that most desegregation occurred in the 1970s, with little subsequent change. It also addresses two questions about the desegregation process. First, how closely was it tied to court orders for a particular school district or for a neighboring district? Desegregation was greatest in response to a legal mandate, but it also extended to districts that never faced court action. Second, what was the effect of mandates on white flight? White student enrollment declined generally in these decades but more in districts that faced a mandate in the immediate past decade. White flight contributed to a modest increase in segregation between school districts, but desegregation within districts was sufficient to result in a large net decline at a metropolitan level.

Public schools in the United States began complying with desegregation orders in large numbers in the late 1960s, about a decade after the Supreme Court ruled that segregated school systems were unconstitutional. Many studies since that time have sought to track segregation, debating how much schools ever desegregated, how much difference court orders made to local district policies, and whether (and to what degree and for how long) desegregation stimulated white flight. The research reported here offers systematic evidence on the timing of changes decade by decade from 1970 through 2010, and it uses multilevel time-

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series models to examine how court orders affected segregation outcomes and white flight. A recent metropolitan-level study reminds us that most changes occurred early in this period, with nearly a 40 percent decline in levels of black-white segregation in schools between 1968–71 and 1990 (Logan, Oakley, and Stowell 2008). At that time there developed what the authors described as a "regime of desegregation." Segregation declined even in metropolitan areas where there were no court orders or federal government mandates, suggesting that "desegregation had become legitimated in the decades following the Brown decision, and … race-conscious policies could now be sustained by routine organization-environment dynamics" (2008, 1638).

This study is aimed primarily at interpreting that early period, when desegregation mandates were first taking effect and scholars were debating whether these efforts would be countered by a backlash in the form of white flight. Most of our analysis is about white-black segregation, tracing outcomes in school districts decade by decade, evaluating whether mandates or the threat of mandates influenced the distribution of students across schools, and assessing their possible effect on white flight to other districts. In addition, because we follow the trends through a full four decades to 2010, we shed some light on what we might call the "post-desegregation" era. From the *Milliken v. Bradley* (1974) decision that vetoed cross-district desegregation orders to the *Parents Involved in Community Schools v. Seattle School District No. 1* (2007) decision that proscribed most voluntary desegregation plans by local districts, the Supreme Court has increasingly limited efforts to reduce segregation. In this context, the notion of a regime of desegregation seems dated. In fact, one recent report suggests that segregation is now on the rise: "American schools, resegregating gradually for almost two decades, are now experiencing accelerating isolation" (Orfield and Lee 2007, 3).

A time-series analysis of these same questions was carried out at the level of metropolitan regions by Logan, Oakley, and Stowell (2008). That analysis left open two major questions that can only be answered at the district level. First, it could test whether segregation declined more in metropolitan areas where at least one desegregation mandate was in place, but it could not determine whether there were effects on the specific district receiving the mandate or in other nearby districts. Second, it could confirm that the overall progress from declines in segregation within school districts was partly counterbalanced by an increase in segregation between districts. This finding (following Coleman, Kelley, and Moore [1975]) was interpreted to be suggestive of white flight from desegregating districts, although it could have resulted from unrelated shifts in residential patterns. A more direct test is whether the share of white students declined in districts that were required to desegregate.

In the following sections, we review the evidence on three issues: the trend in segregation within districts, the effects of mandates on this trend, and the effect of mandates on white flight at the district level. We then describe the research design that covers most public schools within metropolitan areas for the period 1970–2010, and we present findings on the three key questions.

Trends in segregation within districts

The term "segregation" in the majority of studies refers to the uneven distribution of black and white students across schools in the same district. The intention of desegregation plans was to create a more even distribution. The measure employed in this study is the Index of Dissimilarity (D), whose values range from 0 if all schools have the same share of blacks and whites to 100 if there is total separation (Duncan and Duncan 1955). The earliest systematic national data are from the late 1960s. Some desegregation plans had been implemented by this time (see Clotfelter [2004b, 48–57] for a review of pre-1970 change). Coleman, Kelly, and Moore (1975; see also Reber [2005]) report that segregation declined substantially between 1968 and 1972. Logan, Oakley, and Stowell (2008) show that the average school district segregation in 1968–71 (counting all school districts in the nation with available data and weighting them by the number of black enrolled elementary students) was 78.5, falling to 49.0 in 1990 and remaining about the same at 49.5 in 2000.

Other researchers have reported a substantial resegregation since the mid-1980s (Orfield and Lee 2007; Orfield and Frankenberg 2014; Government Accountability Office 2016) in the following sense: minority students became more likely to attend majority-minority schools. As others have pointed out, that finding may be attributable to shifts in the overall racial composition of public school enrollment rather than to changes in how they are distributed across schools (see Clotfelter, Ladd, and Vigdor [2006]; Reardon and Owens [2014, 203–4]). We will evaluate this issue through an analysis of changes in measures of exposure—the racial composition of the school that the average white or black student attended.

The effects of mandates on segregation within districts

Were changes in segregation due mainly to court orders (or federal mandates from the Department of Health, Education, and Welfare ([HEW] that were being issued in this same time period)? There are reasons to doubt whether court action in itself can be decisive. Consider the example of the New Jersey Supreme Court's decisions in the Mount Laurel case (in 1975 and 1983). In this case, the court ordered all communities to accept responsibility for meeting the statewide need for affordable housing. Kirp, Dwyer, and Rosenthal (1995) argue that the court overreached, pointing out that the decision provoked a negative legislative response and that little change was effected in the actual location of affordable housing. From this point of view, court decisions do not in themselves change behavior. They are more effective in unusual conditions where change is already in the offing.

Logan, Oakley, and Stowell (2008) argue that these very conditions were present in the sphere of school desegregation. To summarize their position: desegregation orders could be effective because the Supreme Court had legitimated them, there was a high degree of mobilization at the local and national level on civil rights issues, and the federal government had committed to this

policy shift (Rosenberg 1991). Even in school districts that were not under court order, desegregation became understood as the right policy. Their notion of a "regime of desegregation" borrowed from organizational sociologists who have studied "institutional isomorphism"—the tendency for bureaucratic organizations to become more similar to one another over time due to influence or pressure from the state and the professions (Meyer and Rowan 1977; DiMaggio and Powell 1983). Edelman made a parallel observation about broader societal changes after the 1960s: "the civil rights movement and the mandates of the 1960s created a normative environment in which legitimacy was conditioned on fair governance" (1990, 1402). Some studies (Edelman and Suchman 1997; Dobbin and Sutton 1998) have concluded that the organizational processes underpinning institutional isomorphism are strong enough that the new norms are sustained even if enforcement ceases or there is a loss of public support, both of which seem to fit the case of school desegregation after the 1980s.

Was there a "regime of desegregation" at some point after the Brown decision, where the normative environment was strong enough to lead public school officials across the country to rethink long-standing school assignment policies? Desegregation occurred in many districts where it was not required by court or federal enforcement actions (Rossell and Armor 1996). Logan and Oakley (2004), in a study of all school districts with more than 5 percent black enrollment, find that the reductions in segregation during 1970–2000 were actually larger in districts that were not required to desegregate.

Nevertheless, there is also evidence of reduced segregation specifically in districts that faced court orders, at least after 1969 when (following other related decisions) the Supreme Court declared the "all deliberate speed" standard to be no longer constitutionally permissible and ordered the immediate desegregation of Mississippi schools (*Alexander v. Holmes County Board of Education*). Welch and Light (1987) studied 125 large districts with substantial black enrollments, many in central cities, in the period 1967–85. The value of D in the average district (weighted by the number of minority students) was 74 at the start of the period, declining to 52 by the mid-1980s (averages calculated from Welch and Light, table A2). Among these, the 10 with the largest reductions in D typically started with extremely high values (above 80 and as high as 100) but declined to 30 or below. All 10 had adopted major desegregation plans, and most were in the South.

Two other studies offer similar results. Reber (2005) provides average values of D for 95 large school districts that implemented a desegregation plan after 1968. The average was 71 in 1968, 60 in 1970, and 38 in both 1980 and 1995. Reber measured white-nonwhite segregation, which tends to be lower than white-black segregation, though most of the change is likely due to changes in the schools attended by whites and blacks. Johnson (2011) reported a similar decline in the period 1968–88 for districts that experienced desegregation orders, finding that there was little average change in the five years prior to a court order but substantial decline in the subsequent five years (down by about 15 points after two years, and by nearly 25 after five years).

Other evidence comes from studies of what happens when mandates are removed. The Supreme Court ruled in 1991 (*Board of Education of Oklahoma v. Dowell*) that desegregation plans were not intended to be permanent, and Reardon et al. (2012) point out that over half of all districts under court-ordered segregation as of 1990 had been released from court oversight by 2010. Several studies have focused on districts that attained unitary status, showing subsequent increases in segregation ranging from two to six points. These studies used longitudinal fixed-effects models to analyze annual changes in segregation before and after achieving unitary status. Clotfelter, Ladd, and Vigdor (2006) analyzed large Southern districts in 1994–2004, showing no immediate change in segregation but a statistically significant increase of about two points in the dissimilarity index after three or more years. Lutz (2011) compares changes in segregation in a national sample of 130 medium and large districts that had been under court order in 1991. Of these, 59 attained unitary status as of 2006 and 71 did not. Both types of districts experienced increasing segregation between 1991 and 2006. Lutz shows that the increase in unitary districts was greater, with a small and non-significant change in the first year (less than one point in D) and a cumulative change after 10 years of about six points. Similar analyses by Reardon et al. (2012) show increases of five points after a decade (six points in Southern districts).

These studies suggest that mandates may have large effects on the districts that are ordered to desegregate, and that those effects may be partly reversed when mandates are lifted. In the current study, we have information on the timing of imposition of mandates but not on their rescission. If the desegregation regime holds for the early decades of this period, we would expect to find only small effects of mandates, if any, in relation to the reductions in segregation in other districts. On the other hand, if the early decline in segregation is limited to districts with mandates, and especially if the decline in these districts was reversed after 1990 (when we know many districts gained unitary status), that would contradict the desegregation regime argument.

Mandates, desegregation, and white flight

Apart from segregation within districts, racial imbalance is also affected by the distribution of racial groups across districts. Racial disparities *between* districts account for a large share of overall metropolitan segregation, possibly more than half (Rivkin 1994; Clotfelter 1999, 2004a; Reardon, Yun, and Eitle 2000; Reardon et al. 2012). For this reason, white flight has long been a central concern of school segregation studies (Baum 2010). Reber (2005) suggests that white flight reduced the net effects of desegregation plans by about a third. Assessment of school desegregation and white flight is complicated by other demographic and economic conditions that may reinforce population redistribution (Henderson 2002; Taeuber and Wilson 1978; Frey 1979). The earliest studies of white flight were challenged partly on this basis (Pettigrew and Green 1976; Farley 1975; Rossell 1975–76; Mercer and Scout 1974). Baum-Snow and Lutz (2011) argue that while desegregation plans may have contributed to white

exodus, there were other factors at work such as suburban migratory patterns and overall decline in the white school-aged population. In fact, based on their analysis, these authors contend that even without desegregation mandates, the white public school student population would have decreased by at least 10 percent between 1960 and 1990 (nearly as much as the actual 13 percent).

Still, the preponderance of evidence now suggests that school desegregation is a push factor for whites. Coleman, Kelly, and Moore (1975) found that white student enrollment declined most during 1968–72 in districts that had desegregated the most. Rossell (1978) controlled for long-term demographic and economic changes, including middle-class suburbanization and the declining white birth rate, in her analysis of the effect of school desegregation on white enrollment change. Her findings show that implementation of school desegregation caused significant decreases in white enrollment. However, this negative effect was short lived. Once the desegregation plan became institutionalized, it appeared to have an integrating effect, except for city school districts that were more than 35 percent black (see also Rivkin [1994]). Farley, Richards, and Wurdock (1980) similarly found near-term effects. Specifically, a district where the segregation level declined by 25 points on the Index of Dissimilarity (not uncommon in the 1970s) could anticipate losing one and one-half to twice as many white students as it would if there were no desegregation, but declines in white enrollments leveled off quickly. Wilson (1985) also found that the greatest declines in white enrollment occurred during the year in which the largest increase in interracial contact occurred—the year of plan implementation. Other scholars (Giles 1978; Welch and Light 1987; Smock and Wilson 1991) have reported that drops in white enrollment were more permanent, however. Rossell and Armor (1996) found that the average percentage white enrollment decline for districts in their sample that never had a desegregation plan was about 3 percent between 1968 and 1991. It was much steeper for districts that currently or formerly had a plan (see also Zhang [2011]).

Research design

Data sources and variables

This is a study of the period from 1970 and 2010. It includes most public schools within metropolitan areas as defined in 2000. The outcomes studied here are only about white and black students, with no effort to chart trends for Hispanic and Asian students. This is a substantive decision that rests on the timing of school desegregation and the debates about its consequences. In the 1950s and 1960s, attention was almost entirely focused on white-black segregation, and studies of white flight were premised on white responses to having to attend schools with black students. Since 1970 there has been a substantial increase in Hispanic and Asian enrollment, especially in the West and Southwest, where historically there was a smaller black presence. This shift raises new issues that need to be addressed, but these are not closely related to the processes in the Civil Rights era that are the focal point of the current study. Also, this study is

limited to elementary students. Elementary schools are generally smaller than schools serving older students, and they have a narrower catchment area. Average school size in primary schools in 1999–2000 was 446, compared to 752 in high schools, which typically included fewer grade levels (NCES 2001). Elementary schools are also more closely aligned with what people perceive as neighborhoods, and so are more appropriate for the study of white flight. Also, in many areas they are in a separate elementary school district with its own administration. Segregation processes at higher grade levels would best be studied separately.

We draw mainly on two kinds of data: an inventory of court and federal mandates and data on the racial composition of schools. Data on court cases were compiled for the study by Logan, Oakley, and Stowell (2008), and are available from the American Communities Project at Brown University (https://s4.ad.brown.edu/Projects/USSchools/). Information is drawn mainly from case dockets and bibliographies concerning desegregation court orders from the Department of Justice, NAACP Legal Defense Fund, and US Department of Education. The case inventory includes 358 court cases resulting in desegregation plans, involving 850 school districts as defendants, plus 207 HEW actions involving 207 school districts since 1978. The following analysis treats court orders and HEW actions equally as mandates for desegregation.

Mandates are included in the analysis as a set of four dichotomous indicators. These include not only a mandate for the district itself but also mandates for other school districts in the same metropolitan area (referred to below as "metro mandates"). These represent a spatial effect, and they are intended as an indicator that a district has been put on notice of potential legal action. While not required to desegregate, one possibility is that the district will choose to take steps that would preempt a future mandate. Such action could not be interpreted as fully voluntary. Our indicators of mandates include:

- Was there a mandate put in place in the past decade, including the current year (we refer to this as the "current" mandate)? For example, for a case in 1980, was there a mandate in the period 1971–80? The current year is included here because early studies suggested that the effects of a desegregation plan could be immediate.
- Was there a mandate prior to the past decade (we refer to this as a "prior mandate")? For example, for a case in 1980, was there a mandate prior to 1971? This variable is included in order to gauge the time duration of the effect of mandates, if there is an effect.
- Was there a mandate put in place in another district within the same metropolitan area in the past decade, including the current year? Metropolitan regions are defined here based on the 2000 federal definitions.
- Was there a mandate in another district within the same metropolitan region prior to the past decade?

School enrollment data for this study were culled from multiple sources. Data for elementary school district enrollment and segregation are tabulated for the

1968–71 school years from the Franklin Wilson and Karl Taeuber Desegregation Study data file, from which findings were published in Wilson (1985). These data were originally obtained by Wilson and Taeuber from the Office of Civil Rights (OCR) of the US Department of Health and Human Services. Their file provides data and segregation measures for districts, not for individual schools. Most data are for 1968–69; for those districts that were not surveyed by OCR in 1968–69, we substitute data from the earliest of the three subsequent years (1969–70; 1970–71; 1971–72).[1]

Data for 1980–82 are also based on the OCR survey. Dr. Sarah Reber (UCLA) provided these school-level data for 1979–80, 1980–81, and 1981–1982, and we matched schools in those years to school districts as defined in 1989–90. Where available, we used data from 1979–80, substituting 1980–81 or 1981–82 as necessary. This is the first study to incorporate 1980 data on school segregation for a national sample of public elementary schools. These data allow us to pinpoint more specifically the timing of desegregation at a national level, showing that it occurred primarily between 1970 and 1980.

For 1989–90, 1999–2000, and 2009–2010, data are drawn from the National Center for Education Statistics (NCES) Common Core Data. A growing share of public elementary schools after 2000 are charter schools, often organized into separate charter school districts. Charter schools and charter school districts are included in our descriptive analyses (tables 1, 2, 5, and 8). Charter schools within regular public school districts are also included in the longitudinal multivariate analyses that cover districts for which data are available for all decades since 1970. Approximately 10 percent of the schools in the NCES database comprise both elementary and non-elementary grades. Therefore, we did not select "elementary schools" but rather "elementary grades." In every school, we counted the numbers of students in grades kindergarten through six (a small number of prekindergarten children are included in the OCR data). Because in some years we knew the racial composition of the school as a whole, not for any particular grades, we had to assume that the elementary children in a school that also included non-elementary grades had the same racial composition as the entire school. Compliance with NCES reporting is voluntary for state education agencies. Therefore, there are statewide gaps in the reporting of student racial composition. Student racial composition was not reported for Idaho for any year between 1989 and 1999, so Idaho was omitted from our analysis. In 1989, schools in the following states did not report student racial composition: Georgia, Maine, Missouri, Montana, South Dakota, Virginia, and Wyoming. In 1999, schools in Tennessee did not report student racial composition. For these states we merged the student membership and racial composition data from the next year in which these variables were available. Specifically, for the 1989–90 school year, we used 1990–91 data for Montana and Wyoming; 1991–92 data for Missouri; 1992–1993 data for South Dakota and Virginia; and 1993–1994 data for Georgia and Maine. For the 1999–2000 school year, we used the 1998–99 data for Tennessee.

For convenience in the following text and tables, 1970 refers to one of the years in the 1968–71 period (most often 1968), 1980 refers to one of the years

Table 1. Segregation and Exposure Measures for Public Elementary Students, 1970–2010, by Districts' Geographical Region[a]

		D_{bw}	P_{ww}	P_{wb}	$P_{w\text{-}HA}$	P_{bb}	P_{bw}	$P_{b\text{-}HA}$
National	**1970**	79.9	92.7	4.0	3.3	78.2	19.1	2.7
	1980	51.0	84.5	8.4	7.0	59.4	33.5	7.1
	1990	46.7	81.3	10.5	8.1	56.2	38.2	5.7
	2000	49.0	76.1	9.7	14.2	56.6	26.9	16.5
	2010	46.7	69.9	8.5	21.5	50.7	24.2	25.1
South	**1970**	84.1	92.1	5.5	2.4	83.8	14.3	1.9
	1980	48.6	79.3	15.2	5.5	58.0	37.8	4.2
	1990	47.2	76.2	17.5	6.3	57.6	38.8	3.6
	2000	49.9	71.5	16.0	12.5	58.3	29.6	12.1
	2010	49.6	64.0	14.3	21.7	53.2	24.8	22.0
Non-South	**1970**	75.8	92.9	3.5	3.7	72.8	23.7	3.4
	1980	53.4	86.9	5.4	7.7	60.8	29.3	9.9
	1990	46.2	83.8	7.1	9.0	54.5	37.5	8.1
	2000	48.0	78.5	6.3	15.2	54.7	23.9	21.4
	2010	42.9	72.9	5.7	21.4	47.8	23.6	28.7

[a]Exposure measures are based on all districts that reported students' race in a given year. D is only calculated for districts with two or more elementary schools and five or more white and black students in the district. The average D is weighted by the number of black students in each district.

in the 1980–82 period, and 1990, 2000, and 2010 refer to the 1989–90, 1999–2000, and 2009–10 school years, respectively. NCES categorizes students as non-Hispanic white, non-Hispanic black, Hispanic, Asian, Native American, and other. The OCR surveys categorize students as non-Hispanic white, non-Hispanic black, Hispanic, and other race. In the following text, the terms "white" and "black" refer only to non-Hispanic students.

Other predictors are included as control variables based on prior research. Segregation is expected to be higher in districts with a larger share of black students and in districts with larger enrollments (using the natural log of size) or with more schools (treated here as a categorical variable). There is evidence in studies of white flight that districts that encompass both city and suburban territory (typically county-wide school districts) retain more white students after implementing a desegregation plan, compared to city-only districts. In addition, suburban districts tended in most areas to increase their white enrollments at the expense of decline in city districts. We also include dummy variables for region, contrasting districts in the South to those in the non-South (the omitted category). "South" refers to the 11 states of the Confederacy and the six slave states (Oklahoma, Missouri, Kentucky, West Virginia, Maryland, and Delaware) that stayed with the Union.

Table 2. Average Values of D within Metropolitan School Districts (students in grades K–6, weighted by black enrollment)[a]

Region and year of mandate	*N* of districts	1970	1980	1990	2000	2010
National						
Never	4,183	61.3	37.2	32.1	35.7	33.9
1st case by 1970	312	84.7	52.9	50.8	53.3	53.4
1st case by 1980	210	84.0	57.5	52.7	58.7	56.9
1st case by 1990	13	79.4	68.1	50.8	61.0	65.1
National total	4,718	79.9	51.0	46.7	49.0	46.7
South						
Never	664	66.8	31.4	30.4	34.2	36.9
1st case by 1970	230	87.8	51.8	51.0	54.8	53.9
1st case by 1980	45	85.5	51.3	50.9	51.7	54.0
1st case by 1990	2	80.1	71.8	54.1	67.4	77.9
South total	941	84.1	48.6	47.2	49.9	49.6
Non-South						
Never	3,519	57.7	40.4	33.2	36.6	31.8
1st case by 1970	82	74.4	56.9	50.1	44.1	50.6
1st case by 1980	165	83.6	59.5	53.4	61.2	58.5
1st case by 1990	11	60.0	37.3	26.4	24.7	22.0
Non-South total	3,777	75.8	53.4	46.2	48.0	42.9

[a]For metropolitan districts with two or more elementary schools and five or more white and black students, weighted by the number of blacks students in each district.

Models

Our analyses apply a GLS random-effects model (*xtreg re* in STATA) to estimate the predictors of change in segregation and change in white enrollment. This is a multilevel model that can estimate the effects of differences in time-varying characteristics across districts (such as their history of legal mandates), time-invariant characteristics of districts (such as regional location), and time itself. The model requires us to assume that the predictors are not correlated with unmeasured differences across districts (the error term for districts). This assumption makes it possible to estimate the effects of time-invariant variables. It is similar to the models used in studies of rescission of court orders described above.

Our model for school segregation treats change in segregation ($D_t - D_{t-1}$) as the dependent variable. Hence we are estimating change in segregation in each of four decades: 1970–80, 1980–90, 1990–2000, and 2000–2010. Other time-varying predictors are the dummy variables representing legal mandates (past and recent) at the district or metropolitan level, district percent black, and total enrollment (natural log), and the size of district coded as a categorical variable

based on the number of schools in the district on average from 1970 to 2010 (less than six and greater than two, six to 15, or more than 15). Time-invariant predictors are region of the country (South vs. non-South) and metropolitan location (city, suburban, or mixed city and suburban). Time is also a predictor: the 1970–80 decade is treated as the omitted category, compared to each of the subsequent decades.

The model for white enrollment treats a measure of "white flight" as the dependent variable. We calculate the ratio of white students (the numerator) to the total of white and black students combined. White flight is the change in this ratio (share $_{t}$ – share $_{t-1}$). An alternative measure, change in percent white, would be affected by changes in Hispanic or Asian enrollment (which increased dramatically in many districts after 1980) that are conceptually very different from white flight. Another alternative would be the absolute change in the number of white students, but our interest is specifically in whether there was a changing balance of whites and blacks. The key time-varying predictors are the presence of legal mandates in the current and previous decades, total enrollment, and number of schools. As in the model for segregation, the remaining predictors include regional location, metropolitan location, and time. We omit black percent to avoid overlap with the dependent variable.

Results

Appendix table A1 summarizes the coverage of our samples of metropolitan-area schools for each decade. The first panel reports the number of districts, schools, total elementary enrollment, and white and black enrollment for all schools where we have valid data. Over time, the sample increases from 4,686 districts in 1970 to 7,587 districts in 2010. Part of the gain may be due to improved national coverage by NCES (1990 and later) compared to OCR (1970 and 1980). Another change was growth of suburban populations that resulted in creation of new districts. Finally, in the past decade there has been a considerable increase in the number of public charter school districts. There was also a concomitant increase in the number of schools. However, the total school population covered by our sample did not change as much (18.4 million in 1970, declining in 1980, but rebounding to about 20 million in subsequent years). The number of white students in the sample declined substantially (14.3 million in 1970 and 9.9 million in 2010), mirroring national trends in the white elementary-age population, while the number of black students grew modestly, from 3.0 million to 3.5 million.

Many of these districts, however, do not qualify for inclusion in some parts of our analysis because they include only one school or because they have no white students (a rare case) or no black students (more common). (These categories are not mutually exclusive.) D is undefined in these situations. In addition, we exclude districts where the number of white or black students is between 1 and 5, because their segregation scores are so affected by very small changes in attendance. Appendix table A1 provides the numbers for different types of excluded districts. The very high number of white students in districts with no black

students adds an important footnote to our account of segregation, especially in 1970. In that year there were 1,276 districts (3,874 schools) where either white or black students were entirely absent. Almost all of these schools were all white, since their enrollment was over 1.5 million whites and less than a thousand blacks. The imbalance was equally great in districts with 1–5 students of either race, which enrolled over 1.7 million whites and only 2,340 blacks. There was also a racial disparity in enrollment in the 807 single-school districts in 1970, enrolling over 400,000 whites and only 15,000 blacks. The balance had shifted by 2010, when there were many more single-school districts. Many of these were charter districts, and many were majority black. We do not measure segregation with an Index of Dissimilarity in all-white or virtually all-white districts. They represent segregation between districts rather than segregation among schools within districts. However, they are a component of the larger story of segregation, and they are included in our measures of group isolation and changing intergroup exposure.

We present findings in the following order. First are descriptive results for levels of segregation over time. We report values of several measures of segregation and group isolation/exposure over time, including both metropolitan and rural school districts. We then focus specifically on changes in the Index of Dissimilarity that we treat as our direct measure of segregation, showing how it is related to the timing of desegregation mandates. This section concludes with multivariate models estimating causes of change in segregation and predicted effects of mandates on segregation. Second, we turn to the issue of white flight. We present descriptive results for the white share of the student population over time, models estimating causes of change in white share, and predicted effects of mandates on white share. Finally, we report trends at the metropolitan level to assess the cumulative impact of district-level changes on segregation, both within and between districts.

Segregation trends

Table 1 provides a summary of segregation and exposure trends from the 1968–69 school year through 2010 that is as complete as possible with the available data. The table distinguishes between districts located in the South and outside the South. For D_{bw}, districts are omitted if they have fewer than two schools with elementary grades, fewer than five white students, or fewer than five black students. All districts are included for the exposure measures (where P_{bb} is exposure of blacks to blacks, or isolation, P_{bw} is exposure of blacks to whites, $P_{b\text{-}HA}$ is exposure to Hispanics and Asians, etc.). Values of D_{bw}, P_{bw}, P_{bb}, and $P_{b\text{-}HA}$ are weighted by the number of black students in the district, so they show the level of segregation and exposures in the district that the average black student attended. P_{wb}, P_{ww}, and $P_{w\text{-}HA}$ are weighted by the number of white students in the district, so they show the level of exposures in the district that the average white student attended.

One clear finding in table 1 is that segregation (D_{bw}) declined very substantially between 1970 and 1980, from a very high average value of 79.9 to a much

more moderate 51.0. The decline was greater in the South, where segregation was initially higher (84.1) and dropped to a lower value (48.6). Further, the progress of desegregation was halted but not reversed through 2010—there is no evidence here of resegregation. In the South, having dropped below 50 in 1980, the level changed little over time, hovering between 47 and 50. In the North (non-South), where the initial decline was more modest, segregation continued to fall, from 75.8 in 1970 to 53.4 in 1980 and 42.9 in 2010.

Table 1 also provides data on trends in group isolation and intergroup exposure. Black students experienced a sharp drop in isolation between 1970 and 1980, especially in the South. Since that time black isolation has declined slowly. Trends in black isolation contradict the resegregation narrative. However, while black exposure to whites increased greatly in the 1970s, especially in the South, more recently it has declined. Further, if black isolation is combined with black exposure to Hispanics and Asians—creating a measure of the extent to which black students are in "minority" schools—the trajectory since 1980 may seem alarming. The percent "minority" in schools attended by blacks nationally rose from 66.5 percent in 1980 to 75.8 percent in 2010. If attention is focused solely on this measure, the trend could be described as increasing segregation. This is the approach taken by Orfield and colleagues (and mirrored in the analysis by the Government Accountability Office [2016]).

The findings for white students show that the major source of these changes is the changing composition of the student population, which affected both whites and blacks. White isolation (P_{ww}) was above 90 in 1970 in both the South and non-South. It dropped precipitously in the South by 1980, and then continued to fall, reaching 64 by 2010. In the non-South, the decline was steadier but less pronounced, reaching 73 by 2010. The initial decline in the South but not outside the South was linked to increased exposure to black students. But after 1980 it was growing exposure to Hispanics and Asians that drove the change. Not only black students but also whites found themselves increasingly in schools with growing shares of Hispanic and Asian classmates. For this reason we do not interpret the rising minority presence in blacks' schools in terms of growing segregation, particularly because whites and blacks were becoming less isolated within their own group and segregation as measured by the dissimilarity index was not rising.

Models of change in segregation

Table 2 takes a step toward assessing the effect of desegregation mandates on segregation (D). The national and regional totals are the same as in table 1. Districts are categorized as never facing a mandate (a large majority of districts, especially outside the South), and those that experienced their first case by 1970, by 1980, and by 1990. In the South most mandates date from before 1970, with a few in the 1970s, and only two more between 1980 and 1990. In the non-South there were many fewer cases, and the largest number were in the 1970s. There were so few post-1980 cases that we do not seek to interpret their average values of D (and because there was only one post-1990 case, we omit it from the table).

How did the incidence or timing of court cases affect segregation trends? One hypothesis would be that the larger 1970–80 decline in D in the South vs. the non-South was due to the high incidence of court cases that had imposed mandates by 1980. There is little support for this hypothesis in table 2. The national totals show that segregation was lowest in all years for districts that would never face a desegregation mandate (which may be why there was never a case). Yet in these districts there was a substantial decline (from 61.3 to 37.2) between 1970 and 1980, a smaller decline in the 1980s, and then little subsequent change. The trajectory is similar for districts that had their first case by 1970 or 1980, though in these districts the initial level of segregation was higher. The very few districts with their first case in the 1980s (i.e., listed as "first case by 1990" in this table) also experienced large declines through 1990, but these districts on average experienced resegregation after 1990—back to about the level reached in 1980.

The trends in the non-South mostly parallel the national averages, which is to be expected since the majority of districts are outside the South. In the South the trend is quite similar for districts that never had a case and those with a case by 1970 or in the 1970s ("first case by 1980"). In these three categories D dropped by more than 30 points between 1970 and 1980, and then changed little after 1980. The main difference among categories is in the starting level—as in the national totals, those districts that never had a case were less segregated to begin with. (The two districts with their first case in 1990 are outliers, with only an eight-point decline from 1970 to 1980, some further decline through 1990, but then an upward swing in segregation.)

On the basis of table 2, it would be hard to conclude that court or federal mandates made much difference. The strongest single result is that there was a clear general trend toward desegregation especially in the 1970s for districts that never faced a mandate. We turn now to multivariate analysis for a more explicit test, and this analysis leads to a different result—mandates are shown to matter more, especially when a current and past mandate combine across decades. Table 3 presents estimates from a random-effects GLS model for black-white segregation. In this model, the dependent variable is the change in D between time (t) and time ($t - 1$). On average these changes are negative, representing decline. Data on four decades of change are pooled into one model. The model as a whole is statistically significant and explains about 30 percent of the overall variance.

There is a substantial effect of having had a mandate put into effect in the immediately past decade (a reduction of 11 points in D), and there is an additional effect of having faced a mandate in a previous decade (about nine points). There are also significant effects of mandates for any other district within the metropolitan region. The coefficient is positive for the immediate past decade, surprising because we expected it to be negative. This means that if a district faced a mandate in the past decade it would have a predicted 11-point drop in segregation, but if another nearby district also had a mandate, the net drop would only be five to six points. Possibly in this case there is something about the metropolitan context that suggests resistance to change or difficulty in implementing change.

Table 3. Random-Effects GLS Model Predicting Change in D (metropolitan school districts 1970–2010)

	b	SE of b
Mandate in prior decades	−9.24***	0.82
Mandate in immediate past decade	−11.01***	1.16
Metro mandate in prior decades	−1.26**	0.55
Metro mandate, immediate past decade	5.39***	0.71
Year (omitted is 1970–80)		
1980–90	18.37***	0.70
1990–2000	22.96***	0.80
2000–2010	21.49***	0.82
South (omitted is non-South)	−1.96***	0.43
Black percent	0.00	0.01
Total enrollment	1.09**	0.37
Location (omitted is city only)		
Suburban only	−0.55	0.65
Includes city & suburb zone	−0.04	0.71
Number of schools (omitted is 2–5)		
Medium (6–15)	−1.16*	0.57
Large (>15)	−1.16	1.01
Constant	−29.23***	2.82

$N = 6{,}484$. * $p < .05$ ** $p < .01$ *** $p < .001$ (two-tailed)
R^2 within = .320.
R^2 between = .065.
R^2 overall = .291.

Change from 1970 to 1980 is represented by the omitted category of year (1980). The 1970–80 change is reflected in the constant term for the model, which is −29 (the predicted value of change in that decade depends also on values for other predictors). Coefficients for the other year dummy variables are all positive. That does not mean that segregation increased in those decades, but that the predicted decline in each other decade (calculated as the sum of the constant term and the decade-specific coefficient) was only about two-thirds as large as in the 1970s.

Other variables serve as controls. We tested for interaction effects (whether the time trend or the effect of mandates was different in the South and non-South, or in districts with different black share, metropolitan location, size or number of schools), but found no consistent pattern. The direct effects of these variables show that the decline in segregation tended to be slightly larger (a negative coefficient) in the South, smaller in larger districts, but larger in districts with more schools. Black share and metropolitan location have no significant effects.

These results confirm two sources of the observed reduction in segregation in this period: an overall time trend (especially in the 1970s) and a specific impact

of court and federal action. To gauge the magnitude of these effects, we calculate predicted values of segregation where some district characteristics are held constant while others are allowed to vary. For illustration, we presume a large Southern central city district (total enrollment of 20,000 across 15+ schools) with a substantial black enrollment (held constant at 25 percent). (Because there are no interaction terms, these choices affect the overall levels of predicted change in D but do not affect the pattern of differences that we wish to discern.)

The maximum effect of mandates on segregation by 1980 would be for a district that experienced a mandate in the period 1971–80 and also in some earlier year (i.e., both of the district mandate variables equal one). The minimum effect is the case where there are no mandates in any decade. Table 4 shows the predicted values for both of these situations, and also for intermediate cases where there was a mandate only in the current or the prior decade. The first row of table 4 reveals the time trend without mandates—a drop of over 21 points in D in the 1970s, followed by quite small changes (both negative and positive) in subsequent decades. The bottom row shows the maximum effect of mandates, predicting a decline of nearly 40 points in the 1970s if there was a mandate both in the 1970s and in a prior decade. In the 1980s, mandates still are associated with declines of 15–20 points. Hence, mandates made a substantial impact. Districts without mandates desegregated to a lesser extent.

Trends and models of change in white enrollment

Are there also effects of mandates on white flight? Table 5 summarizes trends in the share of white students (calculated in relation to the total of white and black students) using the same format as table 2 above. The table includes all metropolitan districts for which data are available in at least one year regardless of number of schools or number of white or black students. The values in the table reveal how the racial composition changed over time in the district (not the specific school) attended by the average black student. The national totals show that there was an overall decline in white share across all districts through 2010, particularly in the 1970s, when segregation policy was such a prominent issue.

Table 4. Predicted Values of Change in Black-White Segregation by History of Desegregation Mandates[a]

	1970–80	1980–90	1990–2000	2000–2010
No mandates in any decade	−21.4	−3.1	1.5	0.1
Mandate only in a prior decade	−31.9	−13.6	−9.0	[b]
Mandate only in immediate past decade	−27.0	−8.7	[b]	[b]
Mandate in prior and current decade	−37.6	−19.2	[b]	[b]

[a]Predicted values based on the model in table 3 for a large (over 20,000 students) central city school district in the South with more than 15 schools and 25 percent black enrollment.
[b]No predicted value is calculated because there were no new mandates after 2000 and only one in 1990–2000.

Table 5. White Students as a Share of White + Black Total (students in grades K–6, weighted by black enrollment)

Region and year of mandate	*N* of districts	1970	1980	1990	2000	2010
National						
Never	7,023	64.5	63.0	65.2	53.7	51.0
1st case by 1970	334	55.0	48.0	45.1	41.5	42.6
1st case by 1980	217	53.4	38.9	36.8	31.6	32.2
1st case by 1990	13	86.8	69.8	34.4	24.2	27.8
National total	7,587	56.4	48.5	47.5	42.8	43.8
South						
Never	1,058	69.8	71.8	71.7	63.5	56.3
1st case by 1970	252	54.4	49.0	46.2	42.0	44.1
1st case by 1980	48	54.0	43.7	40.4	35.6	28.9
1st case by 1990	2	86.4	67.2	28.9	18.2	19.8
South total	1,360	56.9	52.1	49.7	45.7	45.0
Non-South						
Never	5,965	61.2	58.0	61.0	48.1	47.9
1st case by 1970	82	56.9	44.4	40.3	38.4	34.0
1st case by 1980	169	53.3	37.4	35.5	30.1	34.1
1st case by 1990	11	98.0	90.7	74.5	57.9	54.9
Non-South total	6,227	55.9	44.9	45.0	39.6	42.3

Note also at the national level that the districts that never had a mandate experienced no net decline in white share through 1990. There were large declines in the 1970s and 1980s for districts that had mandates by that time. These statistics seem to support the hypothesis that mandates influenced white enrollment. Surprisingly, in light of the known prevalence of newly created white academies in the South (Clotfelter 1976), white loss between 1970 and 1980 was of similar magnitude outside the South.

We turn to a multivariate analysis to discern the effect of mandates independent of other factors. Table 6 presents results from a random-effects GLS model predicting change in the white share (calculated as a percentage of the combined white and black enrollment). Here (as in table 3), the sample includes only districts for which data are available in all decades. The key predictors are the history of mandates (as discussed above) and the year (to reflect time trend). As in table 3, region, total enrollment, metropolitan location, and number of schools are included as control variables. Percent black is not included because it is so closely associated with white share. Again we tested for interaction effects but found no consistent pattern. The model is satisfactory but accounts for less of the variance than the model for change in segregation (total R^2 is .112).

Mandates have strong effects. A mandate in the immediate past decade is associated with a nearly six-percentage-point decline in white share. A mandate in a

Table 6. Random-Effects GLS Model Predicting White Flight (change in white share from prior decade)

	b	SE of b
Mandate in prior decades	−1.40***	0.35
Mandate in immediate past decade	−5.82***	0.50
Metro mandate in prior decades	−0.64**	0.24
Metro mandate, immediate past decade	−1.49***	0.31
Year (omitted is 1970–1980)		
1980–1990	−0.70*	0.29
1990–2000	−4.00***	0.35
2000–2010	−2.13***	0.36
South (omitted is non-South)	2.86***	0.26
Total enrollment	−1.37***	0.20
Location (omitted is city only)		
Suburban only	1.68***	0.39
Includes city & suburb zone	1.41***	0.44
Number of schools (omitted is 2–5)		
Medium (6–15)	−0.41	0.30
Large (>15)	−0.26	0.52
Constant	8.57***	1.56

$N = 6{,}484$ * $p < .05$ ** $p < .01$ *** $p < .001$ (two-tailed)
R^2 within = .0684.
R^2 between = .1615.
R^2 overall = .1120.

prior decade is associated with only a 0.6-point decline, suggesting that the initial loss attenuates rapidly over time. Mandates in another district in the same metropolitan region have significant but modest negative effects on white share. There is also a general time trend, showing significantly greater declines in white share in later decades (especially 1990–2010) than in 1970–90. Presumably the time-related effects of the events of 1970–90 were captured in the effects of mandates.

All else equal, white enrollment increased more (or declined less) in the South and in suburban or combined city/suburban areas. White decline was more evident in districts with more students, with no effect of the number of schools.

To illustrate the joint effects of mandates and time trends, we have estimated the predicted values of change in white enrollment, as we did with change in segregation. Table 7 shows that with no mandates (the first row) there is a fairly constant rate of white decline across decades, greater after 1990 than before. This overall time trend itself cannot be interpreted directly as white flight. It represents a trend shared by all districts in which the main component is likely the relative decline in white school-aged children (the declining overall number of white students is shown in appendix table A1). The effects of mandates are found in the difference

Table 7. Predicted Values of Change in White Share by History of Desegregation Mandates[a]

	1970–80	1980–90	1990–2000	2000–2010
No mandates in any decade	−2.4	−3.1	−6.4	−4.5
Mandate only in a prior decade	−4.5	−5.2	−8.5	[b]
Mandate only in immediate past decade	−9.7	−10.4	[b]	[b]
Mandate in prior and current decade	−11.8	−12.5	[b]	[b]

[a]Predicted values based on the model in table 6 for a large (over 20,000 students) central city school district in the South with more than 15 schools.
[b]No predicted value is calculated because there were no new mandates after 2000 and only one in 1990–2000.

between this trend and those predicted for districts with different combinations of mandated desegregation. Following this reasoning, we note that in the 1970s there was a "baseline" decline of 2.4 points in white share, but in districts with mandates in the immediate past decade and in a prior decade the decline was 11.8 points. Mandates alone (subtracting the period effect) can be said to result in about a nine-point decline in white share. The result is similar in the subsequent years.

Trends at the metropolitan level

This analysis has been conducted at the district level. The results also merit attention at the metropolitan level, where the decisions that we have characterized as white flight may cumulate to increased segregation across districts. An important question is to what extent the reduction in within-district segregation has been counterbalanced by increasing between-district segregation. Logan, Oakley, and Stowell (2008) addressed this question in a study covering the period 1970–2000 (see also Stroub and Richards [2013] for overall metro segregation through 2009). Here, we replicate and update their findings on metropolitan segregation trends with two additions: 1) They did not have data for 1980, so their finding for the initial decline is based on the change from 1970 to 1990, leaving unclear what the trajectory had been within this crucial two-decade span. 2) We can now update the analysis to 2010, addressing directly the question of whether at the metropolitan level there has been a recent rebound in either within-district or between-district segregation.

Table 8 summarizes the values of the Index of Dissimilarity by decade, distinguishing South and non-South metros. These measures were calculated using constant 2000 metropolitan definitions, and averages are weighted by the number of elementary black students. Within each metropolitan region, the "total" D was calculated from school-level data, ignoring district boundaries. "Within-district D" is the average value of D within districts. "Between-district D" is based entirely on district-level data, ignoring variations within districts.

At a national level, the total metropolitan segregation declined substantially from 82.7 to 66.5 between 1970 and 1980, but there has been no change since 1990. We notice that the initial decline was much stronger in the South than in

Table 8. Metropolitan-Level Black-White Segregation (D) by Region, 1970–2010

		Total metro segregation	Within districts	Between districts
National	**1970**	82.7	78.8	46.7
	1980	66.5	51.9	52.4
	1990	64.3	49.3	50.8
	2000	65.7	49.7	52.2
	2010	64.3	46.5	50.5
South	**1970**	84.5	83.8	31.6
	1980	56.1	47.3	39.3
	1990	56.3	47.0	40.0
	2000	59.2	48.5	41.9
	2010	59.7	48.4	40.2
Non-South	**1970**	81.0	74.5	59.9
	1980	76.0	56.1	64.3
	1990	72.7	51.8	62.2
	2000	72.5	50.9	62.8
	2010	69.7	44.2	62.7

the rest of the county. In the South there was a small subsequent increase, while in the North there was a slight decline. The early overall declines and later small changes can be attributed to changes in segregation within districts, as these measures showed a closely parallel trend. In fact, average within-district segregation declined more than average total segregation. This is because there was a moderate increase in segregation between districts in the first decade. That increase corresponds to what we studied above as white flight, which apparently caused some net redistribution of white students to districts with a smaller black presence. However, this effect was short-lived, because metropolitan between-district segregation has not changed appreciably since 1980.

A complication in evaluating changes in the 2000–2010 decade is the development of charter schools that enrolled close to 10 percent of elementary students in those states that allowed charter schools (Logan and Burdick-Will 2015). Charter schools could be operated by a separate charter school district or by an existing regular public school district. In table 8, those in separate charter districts contribute to the total between-district segregation in 2010. However, in another sense, they could be interpreted as counting toward within-district segregation in the district within which they are physically located. This is how Logan and Burdick-Will (2015) treat them, and they show that black elementary students in charter schools attend a more racially isolated school than other schools within the same district's boundaries. However the effect is to place them in schools that have a black enrollment only about 1.5 percent higher. We suspect, therefore, that charter schools had little net impact on either between-district or within-district segregation between 2000 and 2010.

Discussion and conclusion

This study has examined trends in segregation and shifts in the racial composition of metropolitan school districts from 1968 (when early court orders were beginning to translate into desegregation plans) through the 2000–2010 decade (when most court action involved curtailing such plans). One purpose is to provide a full accounting of the extent and timing of changes in the level of black-white separation in public elementary schools. These findings confirm results reported by some previous studies cited above on the trends in school desegregation, effects of court orders, and their secondary impact on white flight. The replication is at a national scale and for the full 1970–2010 period. Future research may extend the analysis to the growing Hispanic and Asian student populations and to non-metropolitan schools, likely raising some different substantive questions.

Simply knowing the trend is valuable because segregation by race and ethnicity within and across school districts has been shown to be associated with unequal educational opportunities and uneven distribution of resources (Wells and Crain 1994; Clotfelter, Ladd, and Vigdor 2011; Ladd 2012; Logan, Minca, and Adar 2012; Orfield and Frankenberg 2014). In terms of segregation, the main focus is on unevenness in the distribution of black and white children across schools in the same district (measured by the Index of Dissimilarity), which is the specific concern of most desegregation policy in this period, since the Supreme Court explicitly exempted segregation between districts from judicial scrutiny. We find at the national level that the average black student in 1968–71 was enrolled in a district with an extremely high value of D, nearly 80. In the space of a single decade, this average dropped nearly to 50. Subsequent changes have been small but in the direction of further decline, falling below 47 by 2010.

With regard to the unevenness of distribution, there has been no overall retrenchment of the gains made in the 1970s, despite the shifts that have taken place in the legal realm. To be sure, there are examples of school districts that implemented a desegregation plan at one time and then saw segregation drift higher as residential patterns shifted within the district or as the terms of a plan were modified. There are other cases where a desegregation plan was terminated, followed quickly by a sharp increase in segregation. Nevertheless, on average there has been no return to past patterns. Even in studies of districts that have been declared unitary and released from court supervision (as noted above), the highest estimate of the subsequent rebound in segregation is six points, very small in relation to the average reduction in segregation in earlier decades.

A second purpose of this study is to examine the role of legal mandates in the process of desegregation. The timing of desegregation in the 1970s coincides with the timing of enforcement of court orders, and the leveling off after 1980 occurred at the same time as new mandates came nearly to an end. Districts that never experienced a mandate had a net downward trajectory especially in the 1970s, supporting the conclusion reached by Logan, Oakley, and Stowell (2008) based on metropolitan-level data, that a national desegregation regime was constructed in the 1970s with a pervasive influence on all school districts. The courts, federal agencies, and state agencies engaged in loosely coordinated but

highly effective efforts to delegitimize dual school systems and de facto segregated systems across the country. Almost certainly legal mandates were an essential part of those efforts, but the impact of mandates extended beyond the districts on whom they were imposed.

The analysis shows, though, that mandates also mattered a lot. Based on predicted values, the districts that faced a mandate for the first time in the 1970s reduced D by 27.0 points between 1970 and 1980, compared to a 21.4-point decline in districts with no mandate. Districts that had a double hit, the uncommon case of a mandate in the 1970s following upon a court order from before 1970, reduced D by even more in the 1970s (37.6 points). The model that we estimated did not allow for a different effect of mandates in different decades. It would not be surprising, however, if effects were larger in the years closest to 1970, which is when court orders and HEW findings were concentrated.

What did not matter much, however, is the threat of a mandate represented by court orders affecting neighboring districts. This finding is relevant to the desegregation regime argument. One point that could be made against it is that districts without mandates may have been changing policies preemptively in order to avoid court action, not because segregation had lost legitimacy. Our best indicator of legal threat is that another district in the same metropolitan region was ordered to desegregate. In those instances, evidently there were attorneys in the area who were competent to bring a case and courts that were responsive to the arguments. But legal threat measured in this way had only a small effect on change in segregation.

A third purpose of this study is to understand how desegregation and mandates affected white enrollment. Much attention has been given to the possibility that white flight was accentuated in districts where white children would (for the first time in large numbers) be attending the same schools as black children. Potentially, reductions in segregation *within* districts would be undermined by increasing segregation *between* districts through white flight, as white families with children systematically selected homes in school districts with smaller black populations. We found clear evidence of such effects. Over and above the general time trend for districts that never experienced mandates (a 3–6-percentage-point loss in white share in a decade), we estimate that a mandate in the immediate prior decade would increase that loss to 10–14 percentage points). Consistent with several prior studies, we also found that this effect diminished over time—a mandate in an earlier decade had much smaller continuing impact.

White flight partly counterbalanced progress made by desegregation within districts. This result is buttressed by our review of segregation at the metropolitan level, where change within and between districts could be tallied. Another relevant finding is that white flight responded only to mandates in the immediate prior decade. There was only a small continuing effect of a mandate in an earlier time. This result suggests that while mandates accentuated an existing trend toward white flight from racially mixed school districts, a new equilibrium—possibly a new set of expectations about racial balance—was being reached within a decade.

All of these specific findings contribute to a more complete understanding of the phenomena of school segregation, white flight, and court action in the years

since the historic Supreme Court decision in *Brown v. Board of Education*. They also support a more general point of view about the nature of change in race relations that has taken place. Much was accomplished in the early years, and little was undone since that time. Policies that had been seen as legitimate and routine became illegitimate and suspect. School segregation policy is an unusual instance of social change that was introduced against wide resistance but where concerted efforts at many levels (federal and state courts, national and state government agencies, and school districts) established a new order. The achievement is more impressive when compared to the much slower progress in other arenas of race relations, such as police-community relations, the relative income levels of black and white households, and housing segregation. The contrast to housing segregation is especially relevant, since school segregation necessarily to some extent reflects residential patterns. Residential segregation has declined quite slowly but fairly consistently from 1970 to 2010, very different from the abrupt progress and then sudden halt in school desegregation in the same time span. We believe that despite the passage of the Fair Housing Act of 1968, there may never have been a societal-wide delegitimization of housing segregation. Outright discrimination is illegal, and many Americans agree in principle that people should have equal access to the housing market. Yet even court orders to "affirmatively further fair housing" are widely resisted.

In the school arena, the stalemate on segregation since 1980 suggests that the desegregation regime may have been temporary. School segregation has stabilized at what is still a high level. At the same time, past progress is challenged by the emergence of somewhat more segregated charter schools (Logan and Burdick-Will 2015) and great inequalities in levels of concentrated poverty and test-score performance in the schools attended by white children and those attended by black and Hispanic students (Owens 2010; Logan, Minca, and Adar 2012; Ryabov and Van Hook 2007). The Government Accountability Office (GAO 2016, 10) recently documented "a large increase in schools that are the most isolated by poverty and race. [In the last decade] both the percentage of K–12 public schools that were high poverty and comprised of mostly Black or Hispanic students … and the students attending these schools grew significantly." We wonder, then, whether the desegregation regime that was once in place has given way to a new post-desegregation status quo.

Note

1. The OCR data were available for 7,461 metropolitan and non-metropolitan districts in 1968–69. An additional 67 districts were added from 1969–70, 1,239 districts from 1970–71, and 21 districts from 1971–72. As others have noted, there was considerable change in this short period. Hence, this analysis is heavily weighted toward the 1968–69 data in its assessment of the initial level of segregation. In the limited subset of districts for which segregation indices are available for both 1968–69 and 1971–1972 (n = 1,879), the average value of black-white segregation (Index of Dissimilarity) declined from 81.3 to 59.3. This is similar to the national totals reported here for change between 1968–1970 and 1980, and it suggests that much or most of the first decade's change reported here actually occurred between 1968–69 and 1971–72.

Appendix

Table A1. National Samples for Metropolitan Elementary Schools: Districts, Schools, and Enrollment Totals

		Districts	Schools	Enrollment total	White enrollment	Black enrollment
All with valid data[a]	1970	4,686	36,278	18,399,195	14,339,766	3,010,628
	1980	4,730	38,764	15,662,297	10,972,752	2,763,273
	1990	5,921	39,670	19,904,174	12,968,089	3,576,001
	2000	6,512	45,739	20,244,647	9,578,148	3,454,552
	2010	7,587	49,665	21,039,846	9,915,215	3,493,001
Excluded districts						
Single-school districts[b]	1970	807	807	478,076	441,299	15,338
	1980	613	613	267,149	238,736	7,803
	1990	1,333	1,333	479,979	415,305	16,567
	2000	1,574	1,574	441,257	276,921	51,257
	2010	2,449	2,449	689,428	355,628	185,284
Either race not present[c]	1970	1,276	3,874	1,575,495	1,536,474	944
	1980	611	1,403	442,338	416,200	211
	1990	809	1,309	399,971	360,885	1,174
	2000	1,513	6,728	2,522,720	130,370	14,907
	2010	762	1,013	193,614	90,910	50,906
Either race less than five[d]	1970	924	4,034	1,816,622	1,729,371	2,340
	1980	1,053	3,270	1,088,349	996,720	4,927
	1990	1,282	2,978	1,103,527	974,042	11,458
	2000	1,168	2,270	658,410	548,489	22,142
	2010	1,536	2,665	718,311	450,133	75,591
Final sample[e]	1970	1,621	22,802	12,492,902	8,979,270	2,660,505
	1980	1,621	24,335	10,408,104	6,522,383	2,414,917
	1990	1,621	23,766	12,914,908	7,317,904	3,093,061
	2000	1,621	26,348	12,428,343	5,862,657	2,998,207
	2010	1,621	27,471	12,431,259	4,857,913	2,548,562

[a]Total enrollment > 0 and total number of schools > 0.
[b]Total number of schools = 1 and total enrollment > 0.
[c]White enrollment = 0 or black enrollment = 0.
[d]White enrollment = 1–5 or black enrollment = 1–5.
[e]Districts not excluded in any year.

About the authors

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