Published in final edited form as:

Ethn Racial Stud. 2009 ; 39(9): 1576–1598. doi:10.1080/01419870902780997.

The impact of desegregation on black teachers in the metropolis, 1970–2000

Deirdre Oakley^a, Jacob Stowell^b, and John R. Logan^c

^aDepartment of Sociology, Georgia State University, Atlanta, GA, 30303, USA

^bDepartment of Criminal Justice and Criminology, UMASS Lowell, Lowell, MA, 01854, USA

^cDepartment of Sociology, Brown University, Providence, RI, 02912, USA

Abstract

One-third of public school students are racial and/or ethnic minorities. Yet only 14 per cent of teachers represent these groups. Frequently lost in broader debates concerning this disparity is the paradoxical contribution of the 1954 *Brown v. Board of Education* decision. Schools were mandated under *Brown* to desegregate the student body. But the law did not necessarily protect the jobs of black teachers and administrators. Using a unique database of court orders, we examine the impact of mandated desegregation on black teachers. Findings indicate regional differences. Mandated desegregation created conditions that resulted in decreases in the black teaching force in the South. The opposite occurred in the nonsouth, with mandated desegregation positively associated with increases (although small) in the black teaching force. Our findings suggest that the legacy of mandated desegregation may have created broader institutional conditions in which black and other minority teachers remain underrepresented in the teaching force.

Keywords

Education; United States; policy; black teachers; desegregation; public schools

Introduction

For four decades minority public-school enrolment has steadily risen while white enrolment has declined, particularly in metropolitan areas. According to census data, between 1970 and 2000 white student enrolment decreased from 81 to 68 per cent, while black enrolment increased from 13.26 to 16.43 per cent and Hispanic enrolment rose from 5.05 to 12.4 per

© 2009 Taylor & Francis

Note: 1. Our analysis includes 328 of the 331 MSAs in the United States (Anchorage, AK, Boise, ID, and Honolulu, HI, are excluded).

Deirdre Oakley is Assistant Professor in the Department of Sociology at Georgia State University. ADDRESS: Department of Sociology, Georgia State University, Atlanta, GA 30303, USA. Email: doakley1@gsu.edu

Jacob Stowell is Assistant Professor in the Department of Criminal Justice and Criminology at the University of Massachusetts, Lowell.

Address: Department of Criminal Justice and Criminology, UMASS Lowell, Lowell, MA 01854, USA. Email: Jacob_stowell@uml.edu

John r. Logan is Professor in the Department of Sociology and Director of the Research Initiative on Spatial Structures in the Social Sciences at Brown University.

Address: Department of Sociology, Brown University, Providence, RI 02912, USA. Email: John_Logan@brown.edu

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sublicensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

cent. Although trends mirror US shifting demographics, they have not been matched by similar increases in minority teachers (Coley 1995; National Education Association [NEA] 2004; Miller and Endo 2005). One-third of public-school students are members of racial and/or ethnic minorities, but only 14 per cent of teachers represent these groups and 40 per cent of US public schools have no minority teachers (Villegas and Clewell 1998; Eubanks and Weaver 1999).

This disparity has an impact on both minority and majority children (Baumann 2000; Donnelly 1988). Having a diverse group of teachers enriches the experiences of all students by exposing them to the various cultural perspectives that represent the nation as a whole (Carnegie Foundation 1986; Miller and Endo 2005), and ensures that schools maintain a multicultural perspective (Miller and Endo 2005). Minority teachers also provide positive role models for minority students (Stewart, Meier and England 1989; Hudson and Holmes 1994; Bacon 1995).

The disproportionately small share of minority teachers has been attributed to increased career opportunities in other fields, the growing use of culturally skewed teacher-competency testing, and dissatisfaction with the teaching profession (Donnelly 1988, p. 1). However, frequently lost in the debates surrounding teacher diversity is the *1954 Brown v. Board of Education* decision, wherein schools were mandated to desegregate the student body, but the law did not protect the jobs of black teachers and administrators (Karpinski 2004).

Following *Brown*, 38,000 black teachers and administrators in twenty-one southern and southern bordering states lost their jobs (Fultz 2004; Hudson and Holmes 1994; Tillman 2004). Official language concerning black-teacher retention was included in neither the Civil Rights Act of 1964 nor the subsequent federal desegregation guidelines of 1966 (Orfield 1969). In the 1970s and 1980s, further reduction of black educators occurred as more desegregation orders were enacted and new teacher-certification requirements imposed (Tillman 2004). It is possible that the systematic policies and practices stemming from *Brown* that led to fewer black teachers may have had an institutional impact that became embedded in the public-school bureaucracy.

Previous research on the effect of mandated desegregation on the black teaching force has focused on specific states or school districts (Hooker 1971; US Senate Select Committee on Equal Educational Opportunity 1971; Butler 1974; Howard 1976; Haney 1978; Stewart, Meier and England, 1989; Hornsby 1991; Cecelski 1994), qualitative historical accounts of tactics used by school administrators to fire black teachers (Ethridge 1979; King 1993; Hudson and Holmes 1994; Siddle 2001; Tillman 2004; Futrell 2004) or analyses of the legal precedent and consequences of legislation that did not protect black educators (Orfield 1969; Jones 2000; Karpinski 2004).

This study examines the impact of desegregation more broadly: how court orders have affected the black teaching force in metropolitan areas over time; whether Metropolitan areas with more mandated desegregation yield greater declines in black teachers than non-court-imposed desegregation; and whether regional differences exist. After *Brown* many southern districts were required to desegregate (Orfield 1981, 1983). Integration of the student body in the South left black teachers more vulnerable to displacement than elsewhere. In non-southern states, both residential segregation and the racially conscious placement of schools and configuration of attendance boundaries sustained school segregation even after the *Brown* decision. Because insidious segregation was harder to prove as intentional, court-mandated desegregation was less frequent.

The paradoxical sphere of school desegregation

Only in unusual conditions and through the enlistment of powerful allies can judicial activism be successful (Kirp, Dwyer and Rosenthal 1995). The combination of Supreme Court decisions, highly visible public battles over their implementation and the commitment of the federal government to enforce court actions created a national climate in which desegregation orders could be effective at integrating public schools. Many districts voluntarily desegregated as effectively as those with mandatory plans (Rossell and Armor 1996). Bureaucratic organizations tend to become more similar to each other structurally and behaviourally by coercion (institutionalized by the state), mimetic processes (explicitly or unintentionally) and normative pressures (professional standards and acculturation) (Meyer and Rowan 1977; DiMaggio and Powell 1983).

Mandated desegregation was effective where sufficient force was brought to bear on school authorities. Welch and Light (1987) identified nearly fifty major districts where mandated desegregation orders were implemented during 1968–84 to dramatic effect. In all school districts with more than 5 per cent black enrolment, reductions in segregation during 1970–2000 were larger in districts that were not required to desegregate (Logan and Oakley 2004). Because these processes focused on ensuring that students were not attending separate schools based on their race, a residual and paradoxical effect may be the legitimization of the laying off of black teachers as schools merged. Mandated desegregation typically meant the closing of black schools, not white schools. Because of the lack of official language concerning black-teacher retention (Orfield 1969), there was no monitoring of the impact of desegregation on black teachers, setting a precedent for other districts to follow – in other words, mimetic processes. Normative pressures included new teacher-certification requirements that disadvantaged black teachers, supported indirectly by the merging of the American Teachers Association, the National Education Association and the black state teachers associations with their white counterparts (Futrell 2004; Karpinski 2004).

Although the NEA and teacher unions sponsored legal action, success varied mainly because of the tactics used by districts to lay off black teachers (Fultz 2004).

For example the NEA 1965 survey of teacher displacement in the South found that districts simply did not renew teaching contracts for the upcoming school term (NEA 1965; Fultz 2004). Districts could also escape legal repercussions by involuntarily reassigning black teachers to white schools (Tillman 2004), while white teachers could choose their school of transfer. The hostility and discrimination that black teachers faced in these transfers resulted in many leaving their jobs (Orfield 1969).

The classification of the *general teaching* position, held by most black teachers, was reclassified under the special support category of Title IV of the Elementary and Secondary Education Act of 1965 that provided poverty aid to schools (Haney 1978). This meant that, when school systems failed to comply with federal requirements for this aid, funds were cut and black teachers were told that their jobs were eliminated by the federal government. Other tactics included: abolishing tenure laws where there were high percentages of black teachers; allowing dismissal of teachers without cause; failing to replace retiring black teachers with other black teachers; and assigning black teachers to teach out of their content field and evaluating them as incompetent (Futrell 2004, p. 87).

Apparently such tactics worked. In a study examining trends in black-teacher representation in a sample of large school districts between 1968 and 1986, Stewart, Meier and England (1989) found that whatever advantage southern districts had in black-teacher representation had become history by the 1980s. Studies focusing on black-teacher displacement clearly demonstrated how these tactics reduced the black teaching force during the 1960s and

1970s. Hooker (1971) found widespread displacement; in Alabama, one-third of the estimated 10,500 black teachers were dismissed, demoted or pressured to resign.

Hooker (1971) also found that making the National Teacher Examination [NTE] mandatory led to further displacement. During the 1960s, North and South Carolina and Texas used this test as a requirement for certification. Purported to measure academic preparation for teaching in general education, professional education and teaching-area specialization, the NTE was designed by and for middle-class white teachers and, according to critics, many of the test items had nothing to do with teacher ability. Fultz (2004, p. 9) found concerted effort dated to the 1940s to popularize NTE use in the South to avoid paying black teachers equitable salaries. By the 1960s, black educators who did not receive the minimum required score on the NTE were dismissed.

Between 1970 and 1971, hearings before the Select Committee on Equal Educational Opportunity (1971) of the US Senate assessed the dramatic impact of mandated desegregation on the displacement of black school principals, particularly hard hit by desegregation because school systems moved to ensure that white students would not be under the authority of a black principal. For example, in North Carolina in 1963 there were 227 black high-school principals, but in 1970 there were only eight. Despite overwhelming evidence, no legislation was enacted to protect black educators from further displacement.

Data sources

Our objective is to assess the long-term impact of mandated desegregation on black teachers at the metropolitan level. We used public-school enrolment, census data, and coded information from a desegregation court-case inventory collected by the authors. The unit of the analysis is the Metropolitan Statistical Area [MSA].¹ We focused on elementary schools because they are likely to be located at the neighbourhood level whereas secondary schools often cross neighbourhoods or comprise entire districts making trends in the black teaching force more difficult to interpret (Logan 2002).

Public-school enrolment, teacher, and neighbourhood data sources—School-enrolment data for this study were gathered from school-district enrolment and segregation data tabulated for the 1968–71 school years, and National Center for Education Statistics [NCES] Common Core Data school enrolment by race between 1990 and 2000, collected annually. There is no reliable source for public-school enrolment delineated by race prior to 1987. NCES collects data on all public schools in the United States. In our 1990 metropolitan sample, 42,531 schools enrolled 18.1 million elementary students; for 2000, 49,367 schools enrolled 21.2 million. We selected ‘elementary grades’ rather than ‘elementary schools’ because 10 per cent of schools in the database include non-elementary grades. We counted the numbers of students in grades pre-kindergarten through six. Because in most schools we knew the racial composition of the school as a whole, not for any particular grades, we assumed children in an elementary school that included non-elementary grades had the same racial composition as the entire school.

School-enrolment data from 1970 were drawn from the Franklin Wilson and Karl Taeuber Desegregation Study data file, containing findings originally obtained from the Office of Civil Rights of the US Department of Health and Human Services (Wilson 1985). Between 1968 and 1988, the Office of Civil Rights gathered school enrolment by race and segregation for a large sample of the nation’s school districts. The number of school districts surveyed varies substantially by year; for those districts not surveyed in 1968, we substituted data from either 1969–70 or 1970–71. The final coverage for this early period includes 37,895 schools with a total school enrolment of 19.4 million.

Data on teacher racial and ethnic composition is derived from the US Census (Summary Files 1 and 3; for 1990, Summary Tape Files 1 and 4; and for 1970, Summary Tape File 4C). The 1970 racial and ethnic categorization for public-school teachers does not differentiate between Hispanic and non-Hispanic whites and blacks. Although there is some overlap, because our focus is on trends in the black teaching force, this had little effect on our analysis. Ratios of white-to-black college-educated and private-school enrolment were drawn from the census, aggregated to the metropolitan level and matched using 2000 MSA definitions.

Mandated desegregation data sources—Original research resulted in a desegregation-case inventory from case dockets and bibliographies concerning desegregation court orders from the Department of Justice, NAACP Legal Defense Fund and US Department of Education. Published sources are from Wise (1977), Jones (1979) and Welch and Light (1987). Cases were checked through legal databases including Westlaw, confirming case name, school districts, whether the case included the issue of school segregation, whether there was a court-mandated desegregation plan, year of the initial court order and year the order was rescinded (if ever). We also treated as ‘under a desegregation order’ school districts that implemented desegregation plans in response to pressure from the US Department of Health, Education, and Welfare [HEW]. Our analysis incorporates partial information on those plans based on lists compiled by HEW for 1977 and 1978. The legal inventory includes 358 court cases resulting in desegregation plans involving 850 school districts as defendants, plus HEW actions involving 207 school districts since 1978.

Multivariate methodology and creation of measures

Our fixed-effects analytical procedure allowed us to focus exclusively on within-unit changes, introducing a temporal dimension by modelling the effect of change. We examine the impact of mandated desegregation on the black teaching force over time, estimating models for 1970–90 and 1990–2000. For each time period, we estimated three models: all metropolitan areas, southern metropolitan areas and non-southern metropolitan areas.

Methodologically, the results from fixed-effects regressions using two periods are equivalent to ordinary least squares (OLS) first-difference models. One minor distinction is that the fixed-effects procedure does not estimate the regression intercept. For OLS change models, the intercept is interpreted as the expected change in the dependent variable between two periods. Using the fixed-effects approach, we quantified the expected change in the dependent variable by including a dummy year variable (Allison 1994, 2005). Thus, the direction and size of the dummy coefficients are essentially equivalent to the intercept: negative and significant indicated a significant reduction in the proportion of black teachers between the two periods. Unlike an OLS model, a fixed-effects model allowed this interpretation because the dummy-variable parameter was the constant; a fixed-effects approach controlled for the areas' stable characteristics without requiring the inclusion of all indicators, thereby eliminating potentially large sources of bias typically associated with model mis-specification (Johnson 1995; Argue, Johnson and White 1999).

We tested whether the court-mandated desegregation variable influenced the size of the black teaching force over time by including an interaction term between size (percentage) of the student body covered under a court plan and time (year). In each model, the number of cases on which standard errors were calculated equalled the number of metropolitan regions studied in that year. Metropolitan regions were weighted according to the size of the teaching force in the given time.

Our measure of trends in the black teaching force was the percentage of black teachers for each time period. Because teacher racial-composition data included both elementary- and secondary-school employment, our computation of this variable was weighted by the number of elementary-school children in the metropolitan area. Our predictors of black-teacher trends included institutional arrangements, neighbourhood context and geographic regions.

Institutional variables reflected how public schooling is organized in the metropolitan region. The key indicator was the prevalence of mandated desegregation. We hypothesized that mandated desegregation policies may have had an adverse impact on the black teaching force. This measure was constructed as the percentage of students of all races in the metropolis in districts covered by an order during the corresponding year, based on orders that had already taken effect prior to and during the time period being modelled. Other institutional variables included average district size, level of segregation between black and white public-school elementary students and size of black public elementary-student enrolment. Average district size was the number of elementary students divided by the number of districts in a metropolitan area. Previous research (Butler 1974; Fultz 2004 and others) indicated that black teachers were less likely to lose their jobs in larger districts; thus, the impact of mandated desegregation may vary by district size.

To measure school segregation, we used the Dissimilarity Index, measuring the extent that two groups – black and white public-school children – attend separate schools. The index gives the portion of children in one group who would have to attend a different school to achieve racial balance. The degree to which black and white schoolchildren become integrated over time in the metropolitan school system is likely to impact on trends in the black teaching force, particularly where school systems were legally separated based on race prior to the *Brown* decision.

Our final institutional variable is the size of the black elementary student body, measured as a percentage of total elementary enrolment at the metropolitan level. We included this measure because the size of the black student population may be related to a higher percentage of black teachers. How this changes over time in relationship to mandated desegregation was an important dimension of the study, given recent research on teacher diversity.

Neighbourhood context predictors included the white-to-black education gap and the percentage of school-age children attending private school in the metropolis. The education gap was calculated as a ratio of white-to-black individuals for the entire metropolitan region, aged 25 years or older with a college degree. This variable was scaled to a value of 100 if white and black educational attainment was equal and values greater than 100 when white educational attainment exceeded that of blacks. Disparities in higher education between blacks and whites are possible indicators of social differences that might impact trends in the black teaching force. Income was not available in the 1970 decennial census. We included the percentage of children in private schools as a predictor because previous research demonstrated this as an alternative for white children whose parents resisted integration (Nevin and Bills 1976; Clotfelter 2004).

We expected differential impacts on black-teacher trends based on geographic region, because school systems historically have been organized differently (Orfield 1981). Orfield and Monfort (1992) divided the country into five regions: South (eleven states of the Confederacy), Border (six former slave states that stayed with the union and the District of Columbia), Northeast, Midwest and West (see Appendix 1). For the fixed-effects models we combined southern and border states as *South*. All other states are defined as *non-southern*.

Findings

We investigated whether areas where desegregation was court mandated showed significantly larger declines in the black teaching force than those where desegregation was not court imposed. We begin with a descriptive analysis of regional trends in teacher and student diversity between 1970 and 2000, then focus on regional trends in the black teaching force for this time period as related to desegregation court orders.

Trends in racial composition of the public-school teaching force—Table 1 shows the overall trends in racial composition of teacher and elementary public-school children between 1970 and 2000 by region. The 1970 census did not differentiate between non-Hispanic white and black and Hispanic, thus the Hispanic category is not mutually exclusive for 1970. The trends provide the broad story of teacher and student diversity over three decades.

Findings indicate a decrease in the white teaching force and student body in every region. Concurrently, minority-student enrolment increased by almost twice as much, while the proportion of black teachers decreased in the South, increased in the Midwest, and remained level elsewhere. The proportion of Hispanic teachers increased in every region. But increases of Hispanic teachers are generally much lower than increases in the Hispanic student body. Since the bulk of desegregation court orders focused on the integration of white and black students, it is possible that, at least in the South, the decreases in the black teaching force evident in Table 1 are linked to mandated desegregation.

Trends in the black teaching force related to mandated desegregation—We now focus on trends in the black teaching force related to desegregation court orders. Table 2 shows the average percentages for blacks in the teaching force for 1970, 1990 and 2000. Areas are classified by geographic region and prevalence of mandated desegregation (areas with no court orders, those below 49 per cent of children covered by court orders and those above 49 per cent coverage). Since we are using averages and metropolitan areas vary significantly in size, we weighted the average percentage of black teachers by the size of the total teaching force.

By 1990, reductions in black teachers had occurred across all three categories. Clearly, there were proportionately fewer black teachers in the southern and border states between 1970 and 2000, as expected from prior research. Decreases in black teachers tapered dramatically between 1990 and 2000. However, the relationship between these trends and the extent of court-mandated desegregation is difficult to determine, particularly for the 1970 to 1990 period; the largest proportionate decrease between 1970 and 1990 in the South happened in areas with no court orders. This large decrease could be due to shifting market opportunities for black teachers. While outside the scope of our analysis, it could be that the demand for black teachers was greater in other regions.

At the same time, areas with court mandates experienced a decrease in the black teaching force as well but the trend is not linear. Specifically, areas with below 49 per cent coverage decreased almost twice as much as areas with over 49 per cent coverage. Overall, however, decreasing trends in the black teaching force are clear and occurred during the decades when the majority of court orders were handed down, suggesting that the two trends are related.

Trends in the north east between 1970 and 1990 suggest that the increased presence of court orders led to an increase of black teachers. Findings demonstrated stark contrasts between southern and non-southern regions. In the southern and border regions, we saw decreases in black teachers between 1970 and 1990 when most court orders were imposed. Conversely, non-southern regions experienced increases in black teachers, with the biggest increases in

areas with the highest levels of court coverage. By 2000, trends across all regions had not changed greatly (except areas in the Midwest), possibly due to policy shifts that de-emphasized desegregation and led to fewer court actions and less enforcement (Orfield and Yun 1999). Overall, the institutional framework of desegregation had varied consequences for black teachers *depending on region*.

Multivariate analysis—We estimated a series of fixed effects models in order to understand varying effects more fully (correlations can be found in Appendix 2). Table 3 shows the results for the 1970–90 models. The dependent variable in each model is the percentage of black public-school teachers. Model 1 includes all metropolitan areas. Institutional variables in Model 1 indicate that changes in the size of the black student body are significantly related to increases in the proportion of black teachers. Concurrently, increases in black-white school segregation had a positive and significant impact on the proportion of the black teachers. Given the prior research it seems intuitive that the larger the black student body and the more segregated from white students, the more black teachers are employed. No significant effect is found for district size.

Neighbourhood-context variables do not reveal much. While increases in the percentage of children in private school are associated with decreases in black teachers, the effect is not significant. Similarly the coefficient for white-to-black educational attainment is not significant, but means that reductions in the gap led to increases in black teachers.

The coefficient for the interaction term (year * per cent of the student body covered by a desegregation order) provided more concrete evidence concerning an association between desegregation and differential impact on the black teaching force over time. Specifically, findings indicated a significant relationship between decreases in black teachers and increases in desegregation court coverage, although the effect was small. Clearly, court-ordered desegregation had a differential impact on the proportion of black teachers between 1970 and 1990; over time the impact of mandated desegregation was a decrease in the black teaching force.

Model 2 includes only the southern metropolitan area, where reductions in the white/black education gap are significantly associated with increases in the proportion of black teachers between 1970 and 1990. But the main story here is that, like the all-metropolitan-area model, findings indicate a significant reduction in black teachers and a relationship between this decrease and mandated desegregation.

Model 3 includes only non-southern metropolitan areas. Unlike the all-metropolitan and southern models, there is a positive and significant effect of mandated desegregation on black teachers between 1970 and 1990: the interaction term between year and mandated desegregation suggests that increases in court coverage were associated with increases in the proportion of black teachers. Thus it is possible in the non-southern region that mandated desegregation mitigated the decrease in black teachers.

In contrast to the effects of mandated desegregation in the non-south compared with the South, results for the institutional and neighbourhood-context variables are similar to those in the all-metropolitan model. For example, the non-southern model shows both the size of the black student population and black-white school segregation to be significant and positively associated with increases in proportions of black teachers. Likewise, we see no significant effects for district size, percentage private school or the white-black education gap.

Table 4 shows the results for the 1990–2000 models. The dependent variable is the percentage of black public-school teachers. Model 1 includes all metropolitan areas. Consistent with the all-metropolitan model for the earlier time period, increases in the size of the black student body are significantly related to increases in the proportion of black teachers. Different from the earlier time period, black–white school segregation is not significantly related to changes in the black teaching force. In addition, between 1990 and 2000 increases in average district size are associated with increases in the proportion of black teachers. However, results for the interaction term are consistent with the previous all-metropolitan model, suggesting that mandated desegregation continues to have a negative impact on the proportion of black teachers.

Results for neighbourhood-context variables depart from the earlier time period. Increases in private-school attendance between 1990 and 2000 have a significant and positive effect on the proportion of black teachers. Given the previous research (Nevin and Bills 1976; Clotfelter 2004), possibly white parents resisting integration moved their children to private schools while public-school administrative decisions favoured the retention of black teachers because pressure to do otherwise ceased. Second, reductions in the white-to-black education-attainment gap are significantly associated with increases in the proportion of black teachers. Thus socioeconomic status emerged as an influential factor in the racial composition of the teaching force.

Model 2 includes only southern metropolitan areas. Findings are consistent with the all-metropolitan model with the exception of, private-school enrolment: there was no significant increase in the share of students enrolled in private academies and change in the black teaching force. One would expect the opposite to be the case given that all-white private academies increased dramatically during the 1960s and 1970s as a response to mandated desegregation. Such institutions may have closed or gone out of style by the 1990s.

Model 3 includes only non-southern metropolitan areas. Whereas, similarly to the all-metropolitan model, increases in the share of students attending private schools are significantly associated with increases in the proportion of black teachers, as are decreases in the white-to-black education gap, increases in average district size are not significantly associated with increases in the black-teacher population. Concurrently, the effect of year and the interaction between year and the percentage of students covered by mandated desegregation had no significant impact on the proportion of black teachers. This suggests that, unlike the earlier time period, trends in the black teaching force operated independently of mandated desegregation trends between 1990 and 2000.

Discussion

We found a significant and negative effect of court mandates on black teachers between 1970 and 1990 in the models representing all metropolitan areas and the South. However, we found the opposite to be true in non-southern metropolitan areas where favourable conditions for the desegregation of the student body led to small increases in the black teaching force. Yet, despite contrasting regional trends, by 1990 black teachers still had almost twice the representation in the South than in the non-south.

Results of the other institutional and neighbourhood-context variables are mixed for the 1970–90 time period. While increases in the numbers of black students and black–white school segregation are associated with increases in black teachers, average districts and private-school enrolment did not have an effect, regardless of region. These findings depart from previous research that shows black teachers to be less vulnerable in larger districts. In addition, these findings do not support our hypothesis that increased private-school

enrolment might lead to greater retention of black public-school teachers: even if private schools became an alternative for white students whose parents resisted desegregation, it appears to have had no impact on public-school administrative decisions regarding the hiring or firing of black teachers. Lastly, only in the South was the white-to-black education-attainment gap significant, meaning the smaller the gap the larger the black teaching force. However, the variance of this variable is substantially larger for the southern region, which could be driving this difference. Thus, this finding is difficult to interpret.

Overall, we interpret these mixed results as evidence that the bureaucratic organization of desegregation forces was powerful enough to negate the influences of local institutional and neighbourhood factors, partially supported by the enforcement apparatus of the federal government during the 1960s and 1970s (Logan and Oakley 2004). But in the 1990 to 2000 time period, although mandated desegregation continued to impact negatively on black teachers in the South, no effect was found in the non-south. Across all regions, institutional and neighbourhood indicators had a significant and positive impact on the proportion of black teachers. This suggests that, as mandated desegregation ceased to have the strong bureaucratic support of the federal government, its impact on the black teaching force weakened and local institutional and neighbourhood conditions became more influential. Without the powerful support of the federal enforcement apparatus, local conditions had more impact on the racial composition of the teaching force.

Conclusion

Our primary focus was to assess the long-term impact of desegregation on the black teaching force from a national perspective, examining trends at the metropolitan level between 1970–90 and 1990–2000. While a powerful combination of coercive, mimetic and normative processes created a favourable national climate for the integration of the student body, these same conditions were at least partially responsible for reductions in the black teaching force. Our findings also indicate divergent regional processes led to different outcomes by region.

In the South, mandated desegregation created conditions that resulted in decreases in black teachers. But in the non-south the opposite occurred, although the impact of mandated desegregation weakened after 1990. Nonetheless, today, black teachers are under-represented in all regions – and, as the racial and ethnic diversity of the school-age student body continues to increase, the shortage of black and other minority educators has grown into a major public-education policy issue.

The broader policy implications of our findings make it clear, first, that the quest for integration of the public-school student body, with its high court and federal support, contributed to the decline of the black-teacher population in the South. In the non-south, the policy had a more positive impact, but the proportion of black teachers remains small. Federal policy implementation should consider more fully local conditions to avoid unintended residual consequences that might cause policy concerns in the future.

Second, the historical impact of desegregation on black teachers may have created a legacy in the broader field of primary and secondary education that has posed both explicit and implicit barriers to increasing teacher diversity. For example, changes in teacher-qualifying testing during desegregation favoured white teachers. Such tests are still widely used; failure rates among racial and ethnic minorities are higher than for whites. Higher failure rates could create implicit expectations concerning career options such that public-school systems would rather have white teachers. While this is probably only partially the case, particularly in public-school systems with large minority-student enrolments, the pathway to becoming a

teacher appears to pose greater barriers to minorities. Further research can help us more fully understand these barriers and how they might be more clearly linked to the history of school desegregation.

Acknowledgments

This research was supported in part by a grant from the American Education Research Association which receives funds for its 'AERA Grants Program' from the National Science Foundation and the US Department of Education under NSF Grant #REC-9980573. Opinions reflect those of the authors and do not necessarily reflect those of the granting agencies. The authors thank Dr Franklin Wilson, University of Wisconsin at Madison, for providing the school enrolment and segregation data for the 1968 to 1970 period. We also thank the editors of *Ethnic and Racial Studies* as well as the anonymous reviewers for helpful comments and criticism.

Appendix

Appendix 1

States by regional category

South	Border	North	Midwest	West
Alabama	Delaware	Connecticut	Illinois	Arizona
Arkansas	District of Columbia	Maine	Indiana	California
Florida	Kentucky	Massachusetts	Iowa	Colorado
Georgia	Maryland	New Hampshire	Kansas	Idaho
Louisiana	Missouri	New Jersey	Michigan	Montana
Mississippi	Oklahoma	New York	Minnesota	Nevada
North Carolina	West Virginia	Pennsylvania	Nebraska	New Mexico
South Carolina		Rhode Island	North Dakota	Oregon
Tennessee		Vermont	South Dakota	Utah
Texas			Ohio	Washington
Virginia			Wisconsin	Wyoming

Appendix

Appendix 2^I

Variable	1	2	3	4	5	6	7
1970–1990							
1 % Black Teachers	1.00						
2 % Black Elem.Students	0.93***	1.00					
3 School Dissimilarity	0.21***	0.17***	1.00				
4 Average District Size (/1000)	0.26***	0.24***	0.00	1.00			
5 % Private School	0.08*	0.25***	−0.07	0.03	1.00		
6 White/Black Education Gap	0.05	0.18***	−0.39***	0.05	0.26***	1.00	
7 % Under Desegregation Order	0.66***	0.62***	0.42***	0.27***	−0.01	−0.05	1.00
1990–2000							
1 % Black Teachers	1.00						

Variable	1	2	3	4	5	6	7
2 % Black Students	0.94***	1.00					
3 School Dissimilarity	0.27***	0.31***	1.00				
4 Average District Size (/1000)	0.23***	0.19***	-0.04	1.00			
5 % Private School	0.30***	0.39***	0.49***	0.07	1.00		
6 White/Black Education Gap	0.08*	0.21***	0.16***	0.12**	0.19***	1.00	
7 % Under Desegregation Order	0.69***	0.70***	0.09*	0.35***	0.32***	0.16***	1.00

Note * $p < .05$; ** $p < .01$; *** $p < .001$.

¹ Despite the relatively high zero-order correlation between a number of the independent variables (the size of the black school population, percentage of students under a desegregation order and level of school segregation) there is no evidence that including both as independent predictors in the models produced biased estimates due to multicollinearity (Land, McCall and Cohen 1990). Using the variance inflation factor (VIF) model diagnostic, there was no indication of bias due to a high intercorrelation among the independent variables: none of the VIF values exceeded the conventionally accepted threshold of 4.0.

References

- Allison, Paul. Using panel data to estimate the effects of events. *Sociological Methods and Research*. 1994; 23:174–99.
- Allison, Paul. *Fixed Effects Regression Methods for Longitudinal Data: Using SAS*. Cary, NC: SAS Institute; 2005.
- Argue, Amy; Johnson, David; White, LYNN. Age and religiosity: evidence from a three-wave panel analysis. *Journal for the Scientific Study of Religion*. 38:1999. 423–35.
- Bacon R. The changing urban school. *Future Teacher*. 1995; 2(1):3–5.
- Baumann J. What will classrooms and schools look like in the new millennium? *Reading Research Quarterly*. 2000; 35(11):131–2.
- Butler, Johnny. Black educators in Louisiana – a question of survival. *The Journal of Negro Education*. 1974; 43(1):9–24.
- Carnegie Foundation Forum On Education And The Economy, Task Force On Teaching As A Profession. *A Nation Prepared: Teachers for the 21st Century*. Washington, DC: Carnegie Foundation; 1986.
- Cecelski, DS. *Along Freedom Road: Hyde County, North Carolina, and the Fate of Black Schools in the South*. Chapel Hill, NC: UNC Press; 1994.
- Clotfelter, Charles. Private schools, segregation, and the southern states. *Peabody Journal of Education*. 2004; 79:74–97.
- Coley, R. *Teaching for Diversity: Increasing the Supply of Minority Teachers*. Princeton, NJ; Educational Testing Services Policy Information Center; 1995.
- Dimaggio, Paul; Powell, Walter. The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*. 1983; 48:147–60.
- Donnelly, M. *Training and Recruiting Minority Teachers*. Washington, DC: ERIC Clearinghouse on Teacher Education; 1988. ERIC Digest Series Number EA29.
- Ethridge, Samuel. Impact of the 1954 Brown vs. Topeka Board of Education decision on black educators. *The Negro Educational Review*. 1979; 30(4):217–32.
- Eubanks, Segun; Weaver, Reg. Excellence through diversity: connecting the teacher quality and teacher diversity agendas. *The Journal of Negro Education*. 1999; 68(3):451–9.
- Fultz, Michael. The displacement of black educators post-Brown: an overview and analysis. *History of Education Quarterly*. 2004; 44(1):1–27.
- Futrell, Mary Hatwood. The impact of the Brown decision on African American educators. In: Anderson, J.; Byrne, D., editors. *The Unfinished Agenda of Brown v Board of Education*. Hoboken, NJ: Wiley; 2004. p. 79-96.

- Haney, James E. The effects of the Brown decision on black educators. *The Journal of Negro Education*. 1978; 47(1):88–95.
- Hooker, Robert. Displacement of black teachers in the eleven southern states. *Afro-American Studies*. 1971; 2:165–80.
- Hornsby, Alton, JR. Black public education in Atlanta, Georgia, 1954–1973: from segregation to segregation. *The Journal of Negro History*. 1991; 76(1–4):21–47.
- Howard, M. An Historical Study of the Desegregation of the Alexandria, Virginia, City Public Schools, 1954–1973. Washington, DC: George Washington University Press; 1976.
- Hudson M, Holmes B. Missing teachers, impaired communities: the unanticipated consequences of Brown v. Board of Education on the African American teaching force at the precollegiate level. *Journal of Negro Education*. 1994; 63(3):388–93.
- Johnson, David. Alternative methods for quantitative analysis of panel data in family research: pooled time-series models. *Journal of Marriage and the Family*. 1995; 57:1065–77.
- Jones, L. From Brown to Boston: Desegregation in Education, 1954–1974. Vol. 2. Metuchen, NJ: Scarecrow Press; 1979.
- Jones R. Brown v. Board of Education: concluding unfinished business. *Washburn Law Journal*. 2000; 29:191–3.
- Karpinski, C. Faculty diversity: Brown and the demise of the black principal; American Educational Research Association Annual Meeting; April; San Diego, CA. 2004.
- King, Sabrina Hope. The limited presence of African-American teachers. *Review of Educational Research*. 1993; 63(2):115–49.
- Kirp, David; Dwyer, John; Rosenthal, Larry. *Our Town: Race, Housing, and the Soul of Suburbia*. New Brunswick, NJ: Rutgers University Press; 1995.
- Land, Kenneth; McCall, Patricia; Cohen, Lawrence. Structural covariates and homicide rates: are there any invariances across time and space? *American Journal of Sociology*. 95:1990. 922–63.
- Logan, John R. Choosing Segregation: Racial Imbalance in American Public Schools, 1990–2000. Albany, NY: Lewis Mumford Center for Comparative Urban and Regional Research, University at Albany, State University of New York; 2002.
- Logan, John R.; Oakley, Deirdre. The Continuing Legacy of the Brown Decision: Court Action and School Segregation, 1960–2000. Albany, NY: Lewis Mumford Center for Comparative Urban and Regional Research, University at Albany, State University of New York; 2004.
- Meyer, John; Rowan, Brian. Institutionalized organizations: formal structure as myth and ceremony. *American Journal of Sociology*. 1977; 83:340–63.
- Miller, Paul Chamness; Endo, Hidehiro. Journey to becoming a teacher: the experiences of students of color. *Multicultural Education*. 2005; 13(1):2–9.
- National Education Association. Report of Task Force Survey of Teacher Displacement in Seventeen States. Washington, DC: NEA; 1965.
- National Education Association. Assessment of Diversity in America's Teaching Force: A Call to Action, National Collaborative on Diversity in the Teaching Force. Washington, DC: National Education Association; 2004.
- Nevin, David; Bills, Robert. *The Schools that Fear Built: Segregationist Academics in the South*. 1976. Washington, DC: Acropolis.
- Orfield, Gary. The Reconstruction of Southern Education: The Schools and the 1964 Civil Rights Act. New York: Wiley; 1969.
- Orfield, Gary. Why it worked in Dixie: southern school desegregation and its implications for the north. In: Yarmolinsky, Adam; Liebman, Lance; S Schelling, Corinne, editors. *Race and Schooling in the City*. Cambridge, MA: Harvard University Press; 1981. p. 24–43.
- Orfield, Gary. *Public School Desegregation in the United States: 1968–1980*. Washington, DC: Joint Center for Political Studies; 1983.
- Orfield, Gary; Monfort, F. Status of School Desegregation: The Next Generation. Cambridge, MA: Metropolitan Opportunity Project, Harvard University; 1992.
- Orfield, Gary; Yun, John. *Resegregation in American Schools*. Cambridge, MA: The Civil Rights Project, Harvard University; 1999. <http://www.civilrightsproject.harvard>

- Rossell, Christine; Armor, David. The effectiveness of school desegregation plans, 1968–1991. *American Politics Quarterly*. 1996; 24:267–302.
- Siddle, Walker Vanessa. African American teaching in the South: 1940–1960. *American Educational Research Journal*. 2001; 38(4):751–79.
- Stewart, Joseph; Meier, Kenneth J.; England, Robert E. In quest of role models: change in black teacher representation in urban school districts, 1968–1986. *The Journal of Negro Education*. 1989; 58(2):140–52.
- Tillman, Linda C. (Un)intended consequences? The impact of the Brown v. Board of Education decision on the employment status of black educators. *Education and Urban Society*. 2004; 36(3): 280–303.
- United States Senate Select Committee On Equal Educational Opportunity. Displacement and Present Status of Black School Principals in Desegregated School Districts. Washington, DC: Government Printing Office; 1971.
- Villegas, Ana Maria; Clewell, Beatriz Chu. Increasing teacher diversity by tapping the paraprofessional pool. *Theory into Practice*. 1998; 37(2):121–30.
- Welch, Finis; Light, Audrey. New Evidence on School Desegregation. Washington, DC: US Commission on Civil Rights; 1987.
- Wilson, Franklin D. The impact of school desegregation programs on white public-school enrollment, 1968–1976. *Sociology of Education*. 1985; 58(3):137–53.
- Wise, Michael B., editor. Desegregation in Education: A Directory of Reported Federal Decisions. Notre Dame, IN: Center for Civil Rights, University of Notre Dame Law School; 1977.

Table 1

Teacher racial and ethnic composition: 1970–2000* (%)

Year	Teachers				Elem. public school children			
	White	Black	Hispanic	Other	White	Black	Hispanic	Other
All metropolitan areas								
1970	91.34	8.30	2.41	N/A	81.00	13.26	5.05	0.69
1990	87.29	7.80	3.49	1.42	73.58	14.81	8.80	2.81
2000	85.70	7.39	4.78	2.13	67.52	16.43	12.42	3.63
<i>Difference</i>								
<i>N</i> = 327	−5.64	−0.91	3.16	.71	−13.48	3.17	7.37	2.94
North								
1970	97.50	2.29	0.43	N/A	90.57	7.30	1.87	0.26
1990	93.83	3.61	1.93	0.63	82.72	8.79	6.23	2.26
2000	92.77	3.13	2.57	1.53	77.86	10.20	8.94	3.00
<i>Difference</i>								
<i>N</i> = 60	−4.73	0.84	2.14	.90	−12.71	2.90	7.07	2.74
South								
1970	81.04	18.81	3.37	N/A	67.43	26.10	6.25	0.69
1990	78.40	15.75	5.11	0.74	61.73	27.18	9.69	2.81
2000	77.00	14.99	6.53	1.48	56.12	29.02	12.99	3.63
<i>Difference</i>								
<i>N</i> = 112	−4.04	−3.82	6.38	.74	−11.31	2.92	6.94	1.67
Border								
1970	93.77	5.77	0.84	N/A	88.65	10.17	0.35	0.83
1990	92.11	5.91	0.84	1.14	84.29	12.25	1.16	2.30
2000	90.37	5.91	1.03	2.69	79.52	14.41	2.66	3.41
<i>Difference</i>								
<i>N</i> = 22	−3.40	0.14	0.19	1.55	−9.13	4.24	2.31	2.58
Midwest								
1970	96.83	2.97	0.55	N/A	91.21	7.42	0.93	0.44
1990	94.49	4.18	0.74	0.59	85.02	10.44	2.13	2.41
2000	93.45	4.12	1.16	1.28	80.32	12.75	3.99	2.94

Year	Teachers				Elem. public school children			
	White	Black	Hispanic	Other	White	Black	Hispanic	Other
Difference								
N= 72	-3.38	1.15	0.96	.69	-10.89	5.33	3.06	2.50
West								
1970	97.31	1.44	5.08	N/A	81.71	3.49	12.52	2.28
1990	86.94	2.10	7.93	3.03	68.99	4.10	20.32	6.59
2000	83.90	2.00	9.35	4.75	58.87	4.49	28.25	8.39
Difference								
N= 61	-13.41	0.56	4.27	1.72	-22.84	1.00	15.73	6.11

Note:

* The Census did not distinguish between non-Hispanic whites, blacks and Hispanic for teachers in 1970. Therefore there is some overlap between these categories and the Hispanic category.

Table 2
Percentage elementary public school children under desegregation court order by
percentage black teachers

Elem. children under court order		Average % black teachers		
		1970	1990	2000
Metro total	No court orders	4.4	1.9	2.2
	1–49%	10.2	8.2	8.6
	>49%	23.4	17.2	15.8
South	No court orders	12.5	5.0	6.0
	1–49%	20.7	14.1	14.9
	>49%	24.0	20.1	19.1
Border	No court orders	5.1	2.51	2.22
	1–49%	13.61	7.07	6.47
	>49%	15.27	14.63	13.08
Northeast	No court orders	2.3	1.3	1.4
	1–49%	5.4	7.7	6.2
	>49%	N/A	17.8	16.5
Midwest	No court orders	5.6	1.4	1.8
	1–49%	9.6	9.0	9.8
	>49%	2.9	13.2	6.8
West	No court orders	2.1	1.7	1.9
	1–49%	6.7	4.0	3.8
	>49%	1.3	11.7	9.5

Table 3
1970–1990 fixed effects models

	Model 1	Model 2	Model 3
% black elem. pub. school children	0.15** (0.005)	0.30*** (0.07)	0.03* (0.06)
Black–white elem. pub. school segregation (dissimilarity index)	0.13*** (0.01)	0.10*** (0.02)	0.09*** (0.01)
Average district size/1000	−0.04 (0.03)	0.04 (0.04)	−0.14 (0.15)
Percentage children in private schools	−0.10 (0.06)	−0.23 (0.14)	−0.03 (0.05)
Metropolitan white–black education gap	−0.23 (0.18)	−1.05** (0.40)	−0.10 (0.17)
Year (0 = 1970, 1 = 1990)	−7.64*** (0.76)	−6.34*** (1.26)	−5.46*** (0.82)
% Elem. pub. school children under desegregation court order	0.03* (0.01)	−0.04*** (0.01)	0.02 (0.02)
Year *% elem. pub. school children under desegregation court order	−0.03*** (0.01)	−0.05** (0.01)	0.05** (0.02)
Adjusted R-square	0.979	0.978	0.974
<i>N</i>	658	268	390

Notes * $p < .05$; ** $p < .01$; *** $p < .001$.

Model 1 = all metropolitan areas.

Model 2 = southern metropolitan areas.

Model 3 = non-southern metropolitan areas.

Dependent variable = % black public school teachers.

Table 4
1990–2000 fixed effects models

	Model 1	Model 2	Model 3
% black elem. pub. school children	0.15** (0.05)	0.11* (0.08)	0.21*** (0.05)
Black–white elem. pub. school segregation (dissimilarity index)	0.01 (0.02)	0.01 (0.03)	0.01 (0.02)
Average district size/1000	0.09*** (0.02)	0.11*** (0.02)	0.09 (0.08)
Percentage students in private schools	0.27*** (0.05)	0.26 (0.13)	0.38*** (0.06)
Metropolitan white–black education gap	−0.38*** (0.09)	−0.64*** (0.17)	−0.31** (0.11)
Year (0 = 1990, 1 = 2000)	0.76* (0.37)	1.75* (0.77)	0.22 (0.42)
% elem. pub. school children under desegregation court order	−0.01 (0.04)	−0.09 (0.07)	0.11* (0.05)
Year *% elem. pub. School children under desegregation court order	−0.02*** (0.00)	−0.02** (0.01)	0.00 (0.00)
Adjusted R-square	0.992	0.991	0.990
N	658	268	390

Notes * $p < .05$; ** $p < .01$; *** $p < .001$.

Model 1 = all metropolitan areas.

Model 2 = southern metropolitan areas.

Model 3 = non-southern metropolitan areas.

Dependent variable = % black public school teachers.