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Sun Belt Rising: Regional Population Change and the Decline in Black Residential Segregation, 1970–2009

John Iceland,
211 Oswald Tower, Department of Sociology, Penn State University, University Park, PA, 16802, USA

Gregory Sharp, and
Department of Sociology, Penn State University

Jeffrey M. Timberlake
Department of Sociology, University of Cincinnati

John Iceland: jdi10@psu.edu

Abstract

The goal of this study is to examine the extent to which population shifts over the post–Great Migration period and divergent trends in segregation across regions contributed to the overall decline in black segregation in the United States in recent decades. Using data from the 1970 to 2000 decennial censuses and the 2005–2009 American Community Survey (ACS), our analysis indicates that black dissimilarity and isolation declined by more in the South and West than in the Northeast and Midwest. Nevertheless, regional population shifts account for only a modest amount (8% to 12%) of the decline in black-white segregation over the period and an even smaller proportion of the decline in black-nonblack segregation, in part because the largest declines in segregation occurred in the West while the region with the largest relative increase in the black population was the South. Using more refined census divisions rather than census regions provided some additional explanatory power (shifts across divisions explained 15%–16% of the decline in black-white segregation): divisions with larger gains in their share of the black population tended to have larger declines in black segregation. Overall, although the effect of the regional redistribution of the black population on declines in segregation was significant, of even greater importance were other causes of substantial declines in segregation in a wide array of metropolitan areas across the country, and especially in the West, over the past 40 years.

Keywords

Residential segregation; Racial inequality; Regional change; Population redistribution

Introduction

The Great Migration of southern blacks to the North was one was of the most significant demographic episodes of the twentieth century in the United States (Hamilton 1964; Tolnay 2003). African Americans left the South for many reasons, not least for the good jobs being generated in bustling northern factories and the desire to leave behind Jim Crow apartheid in the post-Reconstruction South (Lemann 1991). Although jobs were indeed more plentiful in the North, racial prejudice and discrimination often greeted the newcomers. Blacks were paid lower wages than whites for the same kind of work and were often barred from all but

the lowest-level occupations (Drake and Cayton 1993; Trotter 1993). Perhaps nowhere was black inequality and subjugation as visible as in the large and dense black ghettos in northeastern and midwestern cities, such as Chicago, New York, Detroit, and Milwaukee (Massey and Denton 1993).

By the late 1960s, the Great Migration had slowed; and by the mid-1970s, it was not only over, but black population flows had begun to move in the opposite direction (Frey 2005; Tolnay 2003). During this period, deindustrialization—characterized by declines in U.S. manufacturing employment in several sectors, such as steel and the auto industry—was well underway, and northern cities lost both jobs and population to other regions of the country.

Also during this period, U.S. metropolitan areas were experiencing slow but steady declines in levels of black-white residential segregation (Logan et al. 2004; Timberlake and Iceland 2007). A number of studies have documented this decline and proposed a variety of causal determinants, such as declines in prejudice and discrimination as well as the changing socioeconomic profile of the black population (Iceland 2009; Ross and Turner 2005).

One perhaps underappreciated feature of changing patterns of segregation in the United States is that southern cities have for some time had lower levels of segregation than northern ones (Massey and Denton 1993), and these differences have widened in recent decades (Iceland et al. 2002). This difference could be a function of the characteristics of metropolitan areas in different regions, such as the industrial base or level of suburbanization. Or it could be that growing Sun Belt cities—such as Austin, Phoenix, and Las Vegas—have less of an entrenched history of black-white conflict to contend with and more ethnically diverse populations that render black-white divisions less important (Frey and Farley 1996).

Whatever the precise mechanisms, it is reasonable to hypothesize that black population shifts from high-segregation regions to low-segregation ones might explain a significant share of change over time in overall levels of black segregation. To the best of our knowledge, this hypothesis has not been tested in the extant literature. Our analysis is therefore guided by the following three research questions that aim to shed greater light on this issue:

1. How have regional differences in segregation changed from 1970 to 2005–2009?
2. To what extent have regional shifts in population contributed to overall declines in black segregation over the period?
3. To what extent do differences in the economic and demographic characteristics of regions explain these differences?

Using data from the 1970 to 2000 decennial censuses and the 2005–2009 American Community Survey (ACS), we calculate levels of black segregation from whites and from all nonblacks in U.S. metropolitan areas using two common measures: dissimilarity and isolation. We examine trends in segregation by region and analyze the effect of changes in the regional distribution of the black population on the overall trend.

This analysis adds to the existing segregation literature in four ways. First, we examine changes over a long observation window: the nearly 40-year period since the end of the Great Migration, from 1970 to 2005–2009. We also investigate the effects of regional shifts on black segregation from both *whites* and *nonblacks* using two common measures of segregation. The growing diversity of the U.S. population makes it increasingly important to examine the segregation of blacks from both reference groups. Third, we offer a formal decomposition of changes in segregation attributable to the distribution of the population

across regions over the period. This precise accounting of the effect of the regional redistribution of the black population has not been conducted. Finally, we examine to what extent observable characteristics of metropolitan areas in different regions explain overall regional differences in segregation over time.

Background

The Great Migration resulted in a striking regional redistribution of the black population in the United States from the rural South to the urban non-South. In 1900, about three-quarters of all African Americans lived in rural southern areas; a century later, that figure had declined to about 12%. By 1950, more than 2.5 million southern-born African Americans were living outside the region, with more than 4 million by 1980 (Tolnay 2003). By the 1970s, the Great Migration was over, accompanied by net return migration to the South (Adelman et al. 2000). During the 1970–2000 period, the Northeast and Midwest regions experienced steady rates of net black outmigration, while the South and West experienced net black in-migration. Blacks who moved to Sun Belt locations often reaped significant locational benefits, as manifested in living in neighborhoods with lower black unemployment and less violent crime (Crowder et al. 2001). Because of differential rates of migration and natural increase, there has been a long-term change in the regional distribution of the black population. Whereas about one-half of all metropolitan blacks lived in the Northeast and Midwest in 1970, only 39% did by 2005–2009. The South has been the largest gainer in its share of the black population (Frey 2004). Although 41% of the black metropolitan population lived in the South in 1970, the share was 52% by 2005–2009 (authors' calculations).

Regional Differences in Segregation, 1970–2000

In 1970, at the conclusion of one of the most socially tumultuous decades in American history, racial segregation across the country stood at very high levels. As measured by the index of dissimilarity, black-white segregation in the largest 60 metropolitan areas in the United States in that year averaged 0.79 (Massey and Denton 1987).[1] However, federal legislation (such as the Fair Housing Act of 1968) and changing white attitudes toward blacks gave promise to the notion that racial integration—at least in terms of residence—could be realized (Massey and Gross 1991). Indeed, over the next 30 years, black-white segregation gradually declined to an average of 0.65 (Iceland et al. 2002). Notably, although regional differences in segregation were modest in 1970, they had grown considerably by 2000 (Farley and Frey 1994; Frey and Myers 2005).

Regional differences in segregation may have arisen for a number of reasons. A number of studies have documented how the "ecological context" of areas can affect residential patterns, and these could be correlated with region of residence. Metropolitan size and the size the black population have been found to be positively associated with black-white segregation: larger metropolitan areas and areas with larger populations of blacks may have more discrimination, tighter housing markets, or larger established ethnic communities (Farley and Frey 1994; Logan et al. 2004; South and Crowder 1997). And indeed, metropolitan areas in the more segregated Northeast and Midwest tend to be larger and have larger black populations. Conversely, some have also speculated that much of the desegregation taking place in the South and West could be attributed to large immigrant or "multiethnic" populations. Latinos and Asians might serve as a "buffer" for blacks and

[1]According to Massey and Denton (1993), a reasonable rule of thumb is that dissimilarity scores higher than 0.6 are considered high, those between 0.3 and 0.6 are moderate, and those below 0.3 are low.

whites, ultimately leading to greater black-white integration (Farley and Frey 1994; Frey and Farley 1996; Frey and Myers 2005; Iceland 2004).

Among other factors, a metropolitan area's economic base has been shown to influence residential patterns. On average, cities devoted to retirement and manufacturing had more black-white segregation, and cities with functional specializations in government, military, and higher education were less segregated in 2000 (Logan et al. 2004). Studies have also found that metropolitan areas with a higher proportion of recent housing construction had lower segregation, perhaps indicative of more dynamic and less racially stratified communities in those areas (Farley and Frey 1994; Logan et al. 2004; Timberlake and Iceland 2007). The relative income of different groups may also be important. The higher the ratio of minority median income to that of whites, the lower the level of income inequality—which, according to the spatial assimilation perspective, likely results in lower levels of segregation (Alba and Nee 2003). Suburbanization may also be associated with segregation because suburbs tend to have lower levels of minority segregation than central cities, although differences have narrowed in recent years (Farrell 2008). Our analysis will examine how the association between these characteristics and black segregation differ over time, and the extent that they may explain general differences in segregation by region.

It is important to note that that factors not well captured by conventional census measures, such as greater racial tolerance or even different residential zoning practices, may also explain residual regional differences. Many high-growth areas in the South and West may have less of a history of racial animosity and fewer entrenched neighborhoods than relatively stratified and stagnant areas in the Northeast and Midwest. Thus, blacks are in a better position to reside in racially integrated neighborhoods in metropolitan areas in the South and West (Frey and Farley 1996). Although our models include a variable for "percentage of housing units built in the last 10 years," which to some extent captures recent growth, that variable alone likely does not fully capture how the histories of segregated neighborhoods affect current residential patterns in many metropolitan areas in the Northeast and Midwest.

In summary, our goal is to test the extent to which the redistribution of the black population from areas of high segregation to those with considerably lower levels over the 1970 to 2009 period has contributed to overall declines in black segregation in the United States. Not only do we analyze more recent census data that allow us to update previous empirical work, but we also implement a decomposition (not conducted by previous studies) that gauges the association between the redistribution of blacks across regions and overall declines in segregation. We further examine the segregation of blacks not only from non-Hispanic whites, but also from all nonblacks. Studies of segregation traditionally use non-Hispanic whites as the reference group (e.g., Iceland et al. 2002; Logan et al. 2004; Massey and Denton 1988, 1993). However, it has become increasingly important to consider alternative reference groups, such as all people not in the group of interest. This stems from the growing multiethnic character of U.S. metropolitan areas (Frey 2006), many where whites are no longer the demographic majority. In these contexts, it makes sense to examine the extent to which blacks are living with all others and not just whites in particular.

Data and Methods

This study uses two data sources. The 1970 to 2000 data come from U.S. decennial censuses, harmonized in the Neighborhood Change Database (NCDB) produced by GeoLytics, Inc. In these data, all census tracts from 1970 to 2000 are matched to consistent Census 2000 boundaries (Tatian 2003). For the latest time period, we use data from the 2005 to 2009 ACS, which replaced the decennial census "long form" and also uses 2000 tract

boundaries. Because the ACS is a smaller survey than the decennial census, five years of ACS summary file data are needed to produce estimates of the composition of all neighborhoods in the United States. Herein, we provide details on how we defined racial and ethnic categories, geographic boundaries, and segregation measures in this study.

The black and white populations have been identified in a fairly consistent manner over the 1970 to 2005–2009 period with the following exceptions: with the 1970 data, one cannot distinguish between the "black" and "non-Hispanic black" population or between the "white" and "non-Hispanic white" population in public-use files. This is a relatively minor issue nationally because of the relatively small Hispanic population in the United States in that year (less than 5% of the population reported being Hispanic in 1970) (U.S. Census Bureau 2008). Additional analyses (not shown) also indicate that our study's conclusions would not appreciably differ if we used 1980 as the starting point instead of 1970. From 1980 to 2005–2009, we use counts of the non-Hispanic black and non-Hispanic white populations who report that race alone.

Residential segregation usually refers to the distribution of groups across neighborhoods within metropolitan areas. According to 2008 Census Bureau metropolitan definitions, 366 metropolitan areas (each with a population of at least 50,000 people) contain 84% of the U.S. population. We use constant 2008 metropolitan area definitions for the 1970 to 2005–2009 period covered by this analysis. We use census tracts normalized to their 2000 boundaries to measure neighborhoods. Census tracts generally have between 2,500 and 8,000 individuals, and are by far the unit most used in research on residential segregation (e.g., Logan et al. 2004; Massey and Denton 1993). However, it was only in 1990, when the entire U.S. territory was first "tracted" by the Census Bureau. As a result, we cannot apply 2008 metropolitan area definitions to untracted territory in 1970 and 1980. We further restrict our analyses in all years to metropolitan areas with at least 1,000 blacks because segregation indexes for metropolitan areas with small minority populations are less reliable than those with larger ones.[2] The final samples of metropolitan areas that meet these criteria are 229 in 1970, 286 in 1980, 318 in 1990, 329 in 2000, and 343 in 2005–2009. We conducted supplemental analyses in which we kept the number of metropolitan areas constant over the entire period (i.e., the metropolitan areas that met the 1,000 threshold criterion for blacks in each of the five time periods), and our conclusions do not differ with this approach.

We define "regions" using the standard Census Bureau definition of region, which splits U.S. states into four regions: Northeast, Midwest, South, and West.[3] We focus on these regions because much of the literature cited to this point commonly divides the country in this way. We also conducted analyses using nine, more refined census "divisions"—Northeast: New England and Middle Atlantic; Midwest: West North Central and East North Central; South: West South Central, East South Central, and South Atlantic; West: Mountain and Pacific. However, because of the similarity of the results, we present only detailed findings for regions and briefly discuss the results for divisions in the results section.

We conducted all regional analyses using two measures of segregation: dissimilarity and isolation. The dissimilarity index is a measure of *evenness*, which refers to the differential

[2]Random factors and geocoding errors are more likely to play a large role in determining the settlement pattern of group members when fewer members are present, causing these indexes to contain greater volatility (Iceland et al. 2002). We also computed segregation indexes using a 10,000 group threshold and found that patterns and trends in black-white segregation were very similar to those with a 1,000 group threshold.

[3]The Northeast includes the following states: CT, ME, MA, NH, NJ, NY, PA, RI, VT; the Midwest includes IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI; the South includes AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV; and the West includes AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY.

distribution of the subject population across neighborhoods in a metropolitan area. It ranges from 0 (complete integration) to 1 (complete segregation), and indicates the percentage of a group's population that would have to change residence (and be replaced by the other group) for each neighborhood to have the same percentage of that group as in the entire metropolitan area.

The second index used in the analysis, isolation, indicates the average proportion of group members (of the group of interest) in the neighborhood where the typical group member lives. The index varies from 0 to 1, with 1 indicating the highest level of segregation. For example, a black isolation score of 0.60 in a particular metropolitan area would indicate that the typical African American lives in a neighborhood that is 60% African American. In the case of *black-white* isolation (as opposed to black-nonblack isolation), the index indicates the proportion of the population that is black in the neighborhood where the typical black person lives; but here, the total population consists only of the black population plus the white population. Essentially, black-nonblack isolation measures black exposure to all nonblacks, while black-white isolation measures black exposure to whites.

When comparing the two indexes (D and P_{xx}), the dissimilarity index has the advantage of not being sensitive to the relative size of the groups in question. It merely provides information on how evenly members of groups are distributed across neighborhoods. In contrast, the isolation index is sensitive to the relative size of the groups being studied. Other factors being equal, larger ethnic groups will be more isolated than smaller ones simply because there are more coethnics present with which to share neighborhoods. The isolation index thus provides useful information on the extent to which a person of a particular ethnic group lives primarily with coethnics, and hence in an ethnic community.

We begin the analysis with descriptive tables and figures that show the changing regional distribution of blacks over the 1970 to 2005–2009 period and average dissimilarity and isolation scores (weighted by the size of the black population) by region. We then estimate ordinary least squares (OLS) regression models that show the association between segregation and region. We first examine the total effect of region by including only regional dummy variables, and then add other group and metropolitan area variables to see whether they explain the association between region and segregation. The control variables include those that that have characteristically been shown to be associated with segregation (Frey and Farley 1996; Logan et al. 2004; Wilkes and Iceland 2004). These include the ratio of black median income to that of the reference group, metropolitan area population size (logged), proportion of the population that is black and other race, proportion of the civilian labor force that is in manufacturing and government, proportion of the labor force that is in the military, proportion of the population age 65 and older, proportion of the young population that has dropped out of high school,[4] proportion of housing units built in the last 10 years, proportion of owner-occupied occupied housing units, and proportion of the metropolitan area population that resides in the suburbs. All regression models are weighted by the size of the black population because our decomposition method (described herein) relies on examining the association between the weighted distribution of blacks across regions and trends in segregation.

Decomposition Analysis

We investigate the role of population change by using a well-known regression decomposition technique, described by Winsborough and Dickenson (1971), which can be written as follows:

[4]For 1970, the age range for this variable is 16–21; thereafter, it is 16–19.

$$\left(\overline{Y}^{2009} - \overline{Y}^{1970}\right) = \left(\beta_0^{2009} - \beta_0^{1970}\right) + \sum_{k=1}^{K} \beta_k^{1970}\left(\overline{X}_k^{2009} - \overline{X}_k^{1970}\right) + \sum_{k=1}^{K} \overline{X}_k^{1970}\left(\beta_k^{2009} - \beta_k^{1970}\right) + \sum_{k=1}^{K}\left(\beta_k^{2009} - \beta_k^{1970}\right)\left(\overline{X}_k^{2009} - \overline{X}_k^{1970}\right), \quad (1)$$

where, in our study, $\overline{Y}^t$ represents average metropolitan area segregation in year *t*, $\overline{X}_k^t$ is the average percentage of blacks in region *k* in time *t* (less one omitted category, the Northeast), and β_k^t indicates the association between segregation and region (as indicated by region dummy variables). More specifically, in Eq. (1), changes in segregation (the left side term) are a function of changes in the intercept (the first term on the right side), changes in the regional distribution of blacks (second term), changes in the effect of region (third term), and the interaction between the change in the regional distribution of blacks and the change in the effect of region (fourth term). In our study, to compute the total effect of compositional shifts of the population, we focus on the sum of the second and fourth terms. Using the second term alone is insufficient because it applies only the 1970 coefficients to the change in the regional distribution of the black population. By adding the fourth term, we are accounting for the fact that it is unlikely that shifts in the distribution of blacks alone account for changes in segregation; rather, it is the interaction of this shift with the fact that the effect of region, albeit initially minor in 1970, has become more substantial. However, we also discuss the independent effect of the second term in our results section. As Jones and Kelly (1984) noted, one limitation of the Winsborough/Dickenson regression-based decomposition approach is that one cannot fully isolate the effects portion of the decomposition (the third term) because it is dependent on the location of the "zero point" of the independent variables in the model. In our regressions, for example, the size of the effects component of the decomposition differs depending on which variable we set as the omitted category, especially because we have multiple region dummy variables. (For a fuller discussion, see Jones and Kelly 1984:334–337.) We thus focus on the role of compositional change, which is both the best possible application of this decomposition exercise and the issue of principal substantive concern in our study.

Jones and Kelley (1984; see also Binder 1973) rewrote the sum effect of the second and

$$\sum_{k=1}^{K}\left(\beta_k^{2009}\right)\left(\overline{X}_k^{2009} - \overline{X}_k^{1970}\right). \quad (2)$$

In Eq. (2), we apply 2005–2009 region coefficients to the changing distribution of the black population across regions to get the sum effect of regional change on overall changes in black segregation over the 1970 to 2005–2009 period. Specifically, we implement the decomposition as follows. We first calculate the distribution of blacks by region—the Northeast, Midwest, South, and West—in 1970 and 2005–2009 (the $\overline{X}_k^t$). We then calculate the association between metropolitan segregation and region dummy variables using OLS regression in 2005–2009 to obtain the β_k^t terms in that year. We then multiply the 2005–2009 region coefficients to the change in the distribution of the population in that region from 1970 to 2005–2009 and sum these terms across regions to obtain the net effect of compositional changes on segregation. By dividing this sum by actual changes in segregation over the period, we obtain the proportion of the overall change accounted for by changes in the regional distribution of the black population.

We expect that the decomposition will show larger effects of population shifts when using the dissimilarity index than the isolation index. As described earlier, the isolation index (by design) is affected by the relative size of group populations, but dissimilarity is not. Thus,

holding other factors constant, black population shifts away from the Northeast and Midwest to the South and West will serve to put upward pressure on isolation scores in the latter two regions, even while dissimilarity might be declining there.

Finally, we apply this decomposition approach to regression results that include all predictors described earlier. This analysis will provide information on the extent to which shifts in other metropolitan area characteristics have contributed to changes in black segregation.

Results

Table 1 shows the regional shift in the black population from 1970 to 2005–2009. We see that the percentage of the black metropolitan population that lived in metropolitan areas in the Northeast and Midwest declined by 6.2 and 5.0 points, respectively, over the period. Meanwhile, the percentage of the black metropolitan population that lived in the South increased by 11.0 points, such that by 2005–2009, more than one-half (52.1%) of the black metropolitan population lived in that region. The proportion of blacks living in the West increased from 1970 to 1990, but declined thereafter, such that the net change in the share of black population in that region was nearly zero.[5]

Fig. 1 shows trends in dissimilarity by reference group. It indicates that the regions with the largest relative declines in their black population (the Northeast and Midwest) witnessed the smallest declines in segregation over the period regardless of the reference group (white or nonblack). In the Northeast, for example, black-white dissimilarity decreased only slightly from 1970 to 2005–2009 (from 0.752 to 0.730, or 0.022 points), although black segregation from all nonblacks declined by a greater amount (from 0.750 to 0.647, or 0.103 points). Southern metropolitan areas saw substantial declines in both black-white dissimilarity (0.171 points) and black-nonblack dissimilarity (0.207 points). Declines in segregation were largest in the West (0.237 and 0.321 points for black-white and black-nonblack segregation, respectively).

The net effect of these trends was a widening of the regional difference in segregation. By 2005–2009, average black-white dissimilarity in the Northeast and Midwest remained over 0.70—a very high level in absolute terms. In both the South and West, black-white dissimilarity scores were slightly under 0.6 by 2005–2009 (although well above 0.70 in 1970). A perhaps underappreciated finding in the current literature is that black-nonblack segregation declined even more than black-white segregation in recent decades—likely a function of declining black-Hispanic segregation (Lewis Mumford Center 2001)— and black-nonblack segregation is lower in all regions than black-white segregation.

Fig. 2 shows changes in black isolation from 1970 to 2005–2009. Panel a indicates that black-white isolation fell by more in the West (from 0.585 to 0.391) than in any other region. Although the South initially experienced greater declines in black-white isolation than the Northeast and Midwest, recently more substantial declines in the Midwest have put the South and the Midwest nearly on par in terms of total declines over the entire 1970 to 2005–2009 period. Black-white isolation rose in the Northeast over the 1970 to 2009 period despite a modest decline over the past two decades.[6]

We also see regional variation in the decline in black-nonblack isolation, from a moderate 0.097 decline in the Northeast (from 0.583 in 1970 to 0.487 in 2005–2009) to a striking

[5]The regional shift in the distribution of the black population is similar to the shift in the white population. Although the focus of this article is on changing distributional patterns of blacks (and quantifying its association with black segregation), it would be appropriate to say that the shift of both the white and black populations are associated with declines in black-white segregation as a whole.

0.376 point decline in the West (from 0.564 to 0.188). Thus, although blacks in the West tended to live in majority-black neighborhoods in 1970, by 2005–2009, they lived (on average) in neighborhoods where fewer than 1 in 5 people were African American. Declines in black-nonblack isolation were substantial and similar in magnitude in the South compared with the Midwest. Together, the two panels of Fig. 2 indicate that blacks became more likely to share neighborhoods with whites and particularly all nonblacks over time, and by 2005–2009, they lived in neighborhoods where a minority of the residents were black in three of the four regions (the Midwest being the exception).

Multivariate Results

Table 2 shows the mean values of the variables in the regressions in 1970 and 2005–2009. It indicates that the proportions of the population that are either black or "other race" have increased significantly over the period and that the proportion of employment in manufacturing has declined significantly. The proportion of the population 65 and older has increased, as has homeownership and suburbanization. The proportion of housing built in the last 10 years and the high school dropout population have declined significantly over time, and the black-to-white income ratio declined slightly.[7]

Table 3 shows results of OLS regressions in which the metropolitan dissimilarity index is the dependent variable and the main independent variables are the region indicators. We compare 1970 results to those from 2005–2009 to show the extent to which the effect of region has changed. We also display a second set of models with additional group and metropolitan area indicators to see whether the effect of region is mediated by these other characteristics.

Consistent with the descriptive figures described earlier, the regression results show that although there was not a statistically significant difference in black-white segregation in the South versus the Northeast (the omitted category) in 1970 (Model 1), segregation scores in the South were 0.17 lower by 2005–2009 (Model 3). In 1970, segregation was higher in the West than in the Northeast, but it was considerably lower in the West (0.16 points lower) by 2005–2009. When control variables are added, the effects of region in 2005–2009 tend to be reduced, but they do not altogether disappear.

The variables that appear to mediate some of the lower levels of segregation in the South and West in 2005–2009 are the proportion of housing units built in the previous 10 years and metropolitan population size. In other words, metropolitan areas in the West and South have lower levels of segregation in part because they have a higher proportion of new housing and smaller populations—characteristics associated with lower black-white dissimilarity. To a lesser extent, proportion in the military also helps mediate some of the effect of the South coefficient.[8]

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[6]The increase from 1970 to 1980 may in part be a function of changes in the definition of the "white" population in our data. As described in the Data and Methods section, whites included Hispanics who also reported being white in 1970 but not 1980. Our study's overall conclusions do not differ if we use 1980 as the starting point instead of 1970; regional redistribution effects are only slightly smaller when using a shorter observation window.

[7]The proportion "other race" is calculated as the proportion of the population not black or white. This proportion is understated in 1970 because whites include Hispanic whites, although not in later years. The black-to-white income ratio was computed differently in 1970 and 2005–2009. In the former year, the ratio is calculated based on counts of individuals in different income brackets by race/ethnicity as coded in the NCDB data file used for this analysis. In 2005–2009, we used the ratio of median family income from the ACS. Thus, although the change in the exact ratio should be viewed with caution, we do not believe that the ratio is systematically biased across metropolitan areas in any given year. (Regressions are run separately for 1970 and 2005–2009.)

[8]Standardized coefficients confirm that these are the variables with the largest association with segregation. The beta coefficients in Model 4 of population size, proportion of housing built in the past 10 years, proportion of the population in the military, and proportion of the young population that has dropped out of high school are .51, –.49, –.14, and .14, respectively.

That the effect of region does not altogether disappear (although it is attenuated) after these controls are included in the models (Models 4 and 8, in particular) indicates that other factors not identified explain some of the remaining differences. We cannot tell exactly what factors explain these with the data at hand, but it could be, as suggested in the existing literature, that the black-white divide and racial animosity and prejudice (factors not easily measured) are more entrenched in many metropolitan areas in the Midwest and Northeast.

Table 4 presents the OLS results for black-white isolation. Even though isolation taps a different dimension of segregation than dissimilarity, results regarding the association between isolation and other variables are nevertheless consistent in many respects to those with dissimilarity. Although isolation was not particularly low in the South and West in 1970 (Model 1), those regions displayed considerably lower levels of isolation than in the Northeast by 2005–2009 (0.08 lower in the South and 0.25 lower in the West, according to Model 3 in Table 4). The addition of controls helps explain a substantial portion of the association between segregation and lower isolation in the South and West (Model 4). The black-nonblack comparison indicates that isolation in the South did not differ from that in the Northeast in 2005–2009 (Model 7). Instead, only the West stands out as having particularly low isolation (0.30 lower than in the Northeast in Model 7), while the Midwest had significantly higher black-nonblack isolation than the Northeast in 2005–2009.

Decomposition Results

Figure 3 displays results from the first decomposition analysis. More specifically, the figure indicates the proportion of the total decline in dissimilarity and isolation that is accounted for by the relative redistribution of the black population across regions. The numbers in the first bar (1970 coeff) represent the effects of compositional change if we apply 1970 coefficients from the regressions. Specifically, the numbers are calculated by multiplying the change in the proportion of the black population in each region (as indicated in Table 1) to the *1970* region coefficients in Models 1 and 5 in Tables 3 and 4. The numbers of the second bar (Total) reflect the effects of compositional change using 2005–2009 coefficients. We call this the *total* effect because it takes into account both the redistribution of the black population and the fact that the effect of the redistribution has likely changed over time (i.e., regional differences in segregation have widened). (See the Data and Methods section for more details.) The sum of these products is then divided by the overall change in segregation from 1970 to 2005–2009 to arrive at the final percentages shown in Fig. 3.

Overall, we see that the total effect of population redistribution on changes in segregation is on the modest side, ranging from a high of 12.3% when considering black-white dissimilarity to only 2.4% when using the black-nonblack isolation index. A few findings from Tables 1–4 help explain the Fig. 3 decomposition results. First, the primary shift in the black population over the 1970 to 2005–2009 period was from the Northeast and Midwest to the South. The share of the black population in the West was about the same in 2005–2009 as in 1970. Thus, the substantial declines in segregation in the West played almost no role in the decomposition analysis because this region neither gained nor lost in its share of the black population. This helps explain why the overall effect of black population redistribution on trends in segregation is no more than moderate over the period. Second, because the southern advantage in lower segregation is more pronounced when black-white segregation rather than black-nonblack segregation is considered, the effect of population shifts tends to be larger when considering the former type of segregation. Population shifts have very little effect on black-nonblack isolation (2.4% in Fig. 3) because, according to Model 7 in Table 4, levels of isolation are virtually the same in the South as in the Northeast. Third, the effect of population shifts is likewise larger when considering dissimilarity than isolation because the southern advantage in lower segregation is more pronounced when using the dissimilarity index than the isolation index.

The smaller "1970 coeff" bars in the figure indicate that applying 1970 region coefficients to distributional shifts in the black population explained less than one-half of the "Total" decomposed change in black dissimilarity because differences in segregation by region were relatively small in 1970. Using the 1970 coefficients also indicates that compositional changes explained none of the change in black isolation because black isolation was relatively high in the South in 1970.

Figure 4 shows results from decompositions when all metropolitan area covariates except region in Tables 3 and 4 are considered. (Note that the scales of Figs. 3 and 4 differ.) The "Total" bars indicate that shifts in metropolitan characteristics do not explain any of the decline in segregation. Quite to the contrary, they have served to *increase* segregation: that is, the negative sign of those bars indicate that changes in metropolitan area characteristics do not explain any of the observed decline in segregation. A detailed inspection of the decomposition (not shown) indicates that the single most important contributor to this increase in all the analyses is the decline in the number of housing units built in the last 10 years. Specifically, as noted in Table 2, the share of new housing stock declined from .26 in 1970 to .16 in 2005–2009. Yet, this variable was very highly associated with lower levels of segregation in all the 2005–2009 regression models: more new housing is associated with lower levels of segregation. Indeed, as indicated earlier, the proportion of new housing helps explain some of the general relationship between region and segregation in the regression models. Thus, the fact that metropolitan areas had less housing built in recent years than a few decades ago served to put upward pressure on segregation.

The "1970 coeff" bars, in contrast, show a moderate overall positive effect of changing characteristics on segregation. The difference in the "1970 coeff" and the "Total" bars is due to the fact that the proportion of housing units built in the last 10 years was not significantly associated with levels of segregation in any of the 1970 regressions; thus, this shift in the population does little to explain changes in segregation. The largest bar in Fig. 4 is "Total" for black-white isolation. An important variable driving this is "proportion other race." The proportion of the population that is neither black nor white increased substantially from 1970 to 2005–2009, yet this variable is strongly and positively associated with black-white isolation (although not with dissimilarity). That is, in metropolitan areas with a larger nonblack minority population, black-white residential contact is lower. Thus, the increase in the "proportion other race" population served to increase black-white isolation quite substantially over the period (and therefore does not explain any of the general decline in such isolation).

A shift in a covariate that served to reduce segregation in the "Total" analysis is proportion of the young population without a high school diploma. This variable is strongly and positively associated with segregation in 2005–2009. This represents a shift in this coefficient from 1970, when it was negatively associated with segregation. Thus, in the "1970 coeff" bar, the proportion of the young population without a high school diploma is one of the factors that served to increase segregation.[9] Why the direction of the relationship between this education variable and segregation changed over time is not entirely clear. However, it could be that in 1970, metropolitan areas with a high proportion of young high school dropouts were not disadvantaged in other ways that might be related to higher racial segregation. For example, in that year, the variable is negatively associated with metropolitan-area population size and unrelated to black-white income differences; by

[9]It should be noted that although the coefficient of proportion of the young population that has dropped out of high school appears to be the largest in many of the models, its standardized (beta) coefficient indicates otherwise. For example, although it appears to be the second largest coefficient in Model 2 of Table 3, its beta coefficient is fifth largest (after Midwest, South, West, metropolitan population size, and proportion of housing built in the last 10 years).

2005–2009, however, it was unrelated to metropolitan-area population size and positively associated with black-white income differences. In the 2005–2009 period, our observed relationship is more in line with other recent studies that include an education control (e.g., Iceland and Scopilliti 2008; Logan et al. 2004). Among other covariates with nontrivial impacts in some of the decompositions, declines in manufacturing increased segregation, and increases in the relative size of the black population increased both isolation measures but had little effect on dissimilarity.

That black-white segregation (both dissimilarity and isolation) fell over the period in spite of the upward pressure of changing metropolitan characteristics on segregation (according to the 2005–2009 coefficients) is indicative of general secular declines in black-white separation over the past 40 years, perhaps in response to declines in discrimination and black avoidance in the post–Civil Rights period.

Finally, because census-defined regions provide broad (if common) delineations of the U.S. population, we analyzed the effect of the redistribution of the black population using nine census divisions rather than the four regions (as defined in the Data and Methods section). As might be expected, population shifts are somewhat more consequential when the more refined geographic designations are used, but the magnitude of the effects is not very different. When census divisions are used, black population shifts account for 15.1% of the overall decline in black-white dissimilarity from 1970 to 2005–2009 (instead of 12.3% when regions are used). Similarly, population shifts across divisions account for 10.2% of the decline in black-nonblack dissimilarity, compared with 8.4% when regions are used. For black-white isolation, the difference is larger: the analogous numbers are 16.4% when divisions are used versus 8.6% when regions are used. Finally, population shifts across divisions explain 5.3% of the decline in black-nonblack isolation, compared with 2.4% for regions.

The main reason that population shifts are more substantial for divisions than for regions is that divisions that experienced larger gains in their black populations tended to have large declines in black segregation. Likewise, those with the largest losses in black population had relatively little change in segregation (see Tables 5 and 6 in the appendix for segregation indexes in all regions and divisions).

Conclusions

The goal of this study was to examine the extent to which black population shifts over the post–Great Migration period have contributed to overall declines in black segregation in the United States in recent decades. Using data from the 1970 to 2000 decennial censuses and the 2005–2009 ACS, we calculated levels of black dissimilarity and isolation from whites and from nonblacks in all U.S. metropolitan areas. We ran regressions showing the changing association between region and black segregation, and then decomposed changes in segregation into those due to the changing distribution of the black population versus general changes in levels of segregation.

Our descriptive analyses confirmed the documented redistribution of the black population away from the Northeast and Midwest to the South. The West experienced little net change in its share of the black population over the 1970 to 2005–2009 period. We also found regional differences in segregation patterns, with metropolitan areas in the South and West generally having lower levels of black segregation than those in the Northeast and Midwest. Regional differences were generally larger in 2005–2009 than in 1970. Our decomposition analysis indicated that regional population shifts accounted for only a modest amount of the decline in black-white dissimilarity (12%) and black-nonblack dissimilarity (8%) over the

1970 to 2005– 2009 period. Population shifts across regions explained only 8% and 2% of the decline in black-white and black-nonblack isolation, respectively. The smaller effects when using isolation than dissimilarity are a function of smaller regional differences in isolation. Using more refined census divisions rather than census regions provided some additional explanatory power: shifts across divisions explained between 5% and 16% of the decline in segregation (higher than the 2 % to 12% range when using regions). The reason for the greater effect when using divisions is that divisions that had larger increases in their share of the black population generally had larger declines in black segregation—even within regions.

Nevertheless, these results indicate that more important than compositional shifts in explaining the overall decline in black segregation from 1970 to 2005–2009 has been the general decline in segregation in metropolitan areas across the United States, even in areas with little change in their share of the black population. Segregation declines in the West, for example, were quite substantial. Black-white dissimilarity declined by 29% and isolation by one-third in the West from 1970 to 2005–2009. Moreover, black-nonblack dissimilarity declined by 40% and isolation by an impressive two-thirds over the same period there. In absolute terms, this indicates that whereas blacks in the West, on average, were living in neighborhoods that were 57 % black in 1970, they were living in neighborhoods that were just 19% black by 2005–2009. Past studies have noted declines in segregation in the West (e.g., Frey and Farley 1996), but our long period of observation (nearly 40 years) highlights the overall effect of long-term change. The fact that nonblack segregation fell by more than black-white segregation also indicates that blacks are increasingly sharing neighborhoods with other groups, such as Hispanics, to a degree greater than with whites (Iceland and Nelson 2008).

Our regression analyses indicated that metropolitan characteristics explained a substantial portion of the regional differences in segregation, but not all. Metropolitan areas in the South and West tended to be smaller and have more recent growth in housing stock—factors associated with lower levels of black segregation from others. It is not altogether clear why some regional differences in segregation persist even with controls. Perhaps metropolitan areas in the Northeast and Midwest have longer-entrenched ghettos that, in the absence of economic growth and change, remain as such. Blacks are slowly depopulating many of these central cities, perhaps leaving behind relatively immobile (socially and economically) and disadvantaged black communities.

Finally, the findings also suggest that although the regional redistribution of the black population has served to reduce black segregation, these reductions are occurring, albeit at varying tempos, in a vast majority of metropolitan areas. Indeed, we found that general segregation declines occurred in U.S. metropolitan areas despite changes in other kinds of metropolitan-area characteristics overall (such as a lower proportion of housing stock that was built in the last 10 years in 2005–2009, compared with the amount of new housing in 1970, in the wake of the baby boom) put upward pressure on segregation over the period. Even in metropolitan areas such as Chicago and New York, where hypersegregated ghettos have been the norm for decades, segregation has edged downward. In other metropolitan areas (such as Roanoke, VA, and Colorado Springs, CO), black segregation is moderate and also declining. Nationally, the typical African American no longer lives in a majority-black neighborhood (black isolation crossed the 0.5 threshold in 2005–2009). Thus, while segregation remains a daily reality for many African Americans in the United States, we are nevertheless seeing signs of the continued easing of the color line.

Acknowledgments

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APPENDIX

Table 5

Black dissimilarity, 1970 to 2005–2009

	1970		1980		1990		2000		2005–2009		Chan	
	Black-White *D*	Black-Nonblack *D*	Black-White *D*	Black-Nonblack *D*	Black-White *D*	Black-Nonblack *D*	Black-White *D*	Black-Nonblack *D*	Black-White *D*	Black-Nonblack *D*	Point Change in Black-White *D*	C I W
Total	0.774	0.773	0.729	0.711	0.677	0.651	0.653	0.610	0.623	0.575	−0.151	
Region												
Northeast	0.752	0.750	0.778	0.737	0.766	0.710	0.749	0.670	0.730	0.647	−0.022	
Midwest	0.859	0.858	0.820	0.811	0.789	0.778	0.757	0.737	0.718	0.696	−0.141	
South	0.729	0.728	0.662	0.654	0.600	0.588	0.584	0.555	0.558	0.521	−0.171	
West	0.808	0.802	0.708	0.672	0.623	0.562	0.593	0.505	0.571	0.481	−0.237	
Division												
New England	0.741	0.740	0.713	0.695	0.677	0.644	0.659	0.599	0.651	0.591	−0.090	
Mid-Atlantic	0.753	0.751	0.785	0.741	0.777	0.718	0.761	0.679	0.742	0.655	−0.011	
East North Central	0.861	0.860	0.827	0.818	0.799	0.788	0.770	0.751	0.732	0.711	−0.129	
West North Central	0.816	0.815	0.727	0.720	0.670	0.660	0.636	0.611	0.596	0.567	−0.221	
South Atlantic	0.727	0.726	0.650	0.644	0.587	0.578	0.569	0.543	0.547	0.514	−0.180	
East South Central	0.667	0.667	0.646	0.642	0.613	0.610	0.588	0.578	0.559	0.545	−0.108	
West South Central	0.760	0.759	0.692	0.677	0.620	0.597	0.614	0.570	0.585	0.526	−0.175	
Mountain	0.761	0.760	0.611	0.588	0.529	0.498	0.488	0.424	0.478	0.410	−0.283	
Pacific	0.812	0.806	0.720	0.682	0.636	0.572	0.612	0.520	0.595	0.499	−0.217	

Notes: Indexes are weighted by size of the black population. Metropolitan areas with at least 1,000 blacks are included in the calculations.

Source: Neighborhood Change Database.

Table 6

Black isolation, 1970 to 2005–2009

	1970		1980		1990		2000		2005–2009		Chang	
	Black-White P_{xx}	Black-Nonblack P_{xx}	Black-White P_{xx}	Black-Nonblack P_{xx}	Black-White P_{xx}	Black-Nonblack P_{xx}	Black-White P_{xx}	Black-Nonblack P_{xx}	Black-White P_{xx}	Black-Nonblack P_{xx}	Point Change in Black-White P_{xx}	% Ch in Bl W P_x
Total	0.661	0.656	0.652	0.608	0.609	0.551	0.595	0.508	0.569	0.472	−0.092	−1

	1970		1980		1990		2000		2005–2009		Chang	
	Black-White P_{xx}	Black-Nonblack P_{xx}	Black-White P_{xx}	Black-Nonblack P_{xx}	Black-White P_{xx}	Black-Nonblack P_{xx}	Black-White P_{xx}	Black-Nonblack P_{xx}	Black-White P_{xx}	Black-Nonblack P_{xx}	Point Change in Black-White P_{xx}	% Ch in Bl W P_{x}
Region												
Northeast	0.588	0.583	0.674	0.586	0.675	0.563	0.664	0.513	0.641	0.487	0.053	
Midwest	0.734	0.731	0.719	0.700	0.685	0.663	0.656	0.611	0.612	0.562	−0.122	−1
South	0.677	0.675	0.630	0.607	0.578	0.549	0.576	0.517	0.560	0.485	−0.117	−1
West	0.585	0.564	0.553	0.439	0.463	0.301	0.425	0.223	0.391	0.188	−0.194	−3
Division												
New England	0.449	0.445	0.482	0.419	0.453	0.365	0.429	0.303	0.420	0.294	−0.029	−
Mid-Atlantic	0.601	0.596	0.694	0.604	0.702	0.588	0.694	0.540	0.673	0.514	0.072	1
East North Central	0.742	0.739	0.732	0.713	0.706	0.685	0.681	0.638	0.641	0.592	−0.101	−1
West North Central	0.602	0.598	0.528	0.512	0.448	0.425	0.407	0.353	0.363	0.303	−0.240	−3
South Atlantic	0.685	0.683	0.624	0.607	0.574	0.550	0.573	0.518	0.562	0.492	−0.123	−1
East South Central	0.623	0.622	0.604	0.595	0.576	0.570	0.565	0.546	0.545	0.518	−0.078	−1
West South Central	0.690	0.688	0.654	0.615	0.588	0.539	0.589	0.501	0.565	0.453	−0.125	−1
Mountain	0.473	0.467	0.373	0.309	0.285	0.223	0.244	0.146	0.232	0.123	−0.241	−5
Pacific	0.597	0.574	0.574	0.454	0.488	0.312	0.459	0.238	0.431	0.204	−0.166	−2

Notes: Indexes are weighted by size of the black population. Metropolitan areas with at least 1,000 blacks are included in the calculations.
Source: Neighborhood Change Database.

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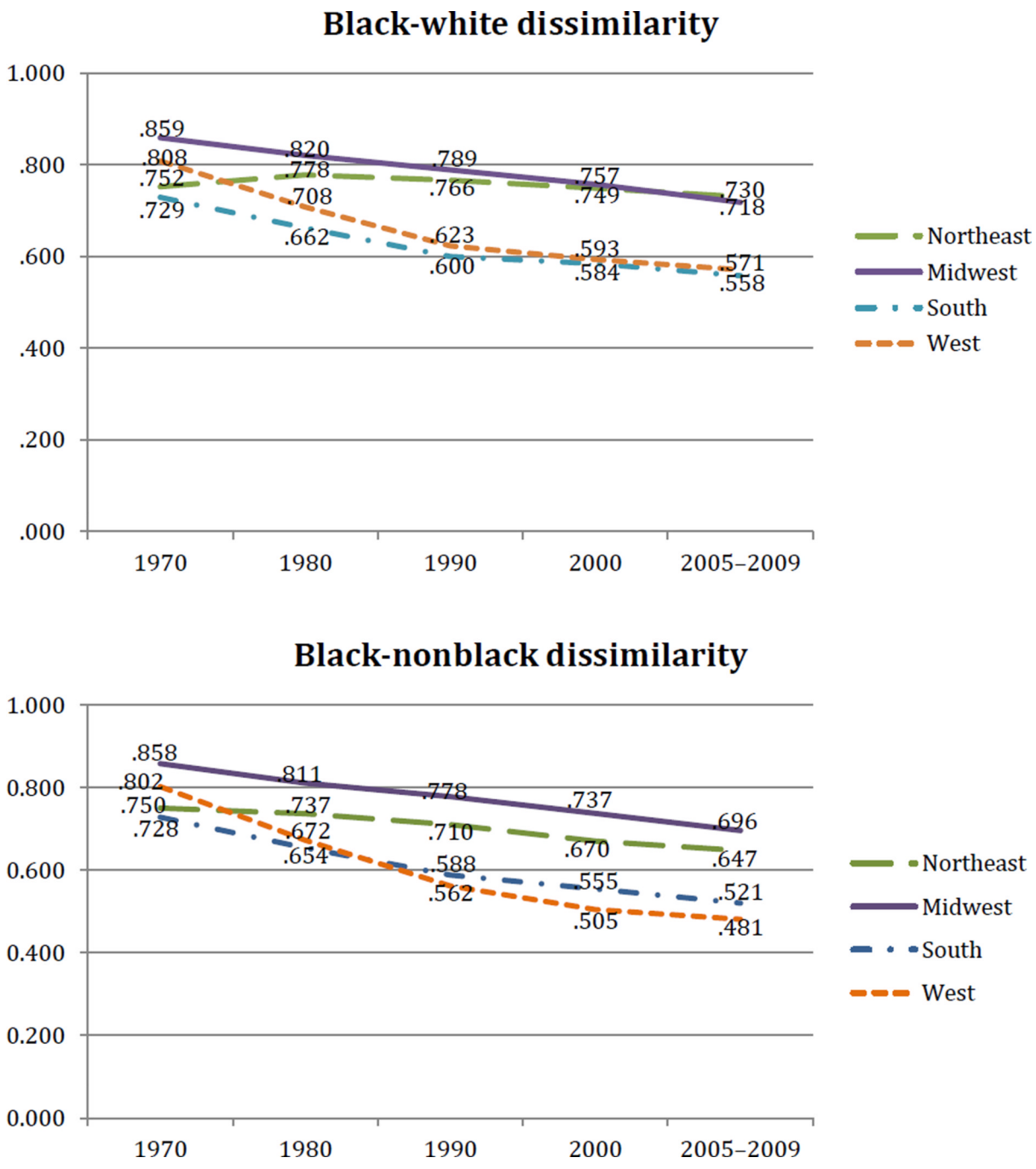

Fig. 1.
Black-white dissimilarity (panel a) and black-nonblack dissimilarity (panel b), 1970 to 2005–2009

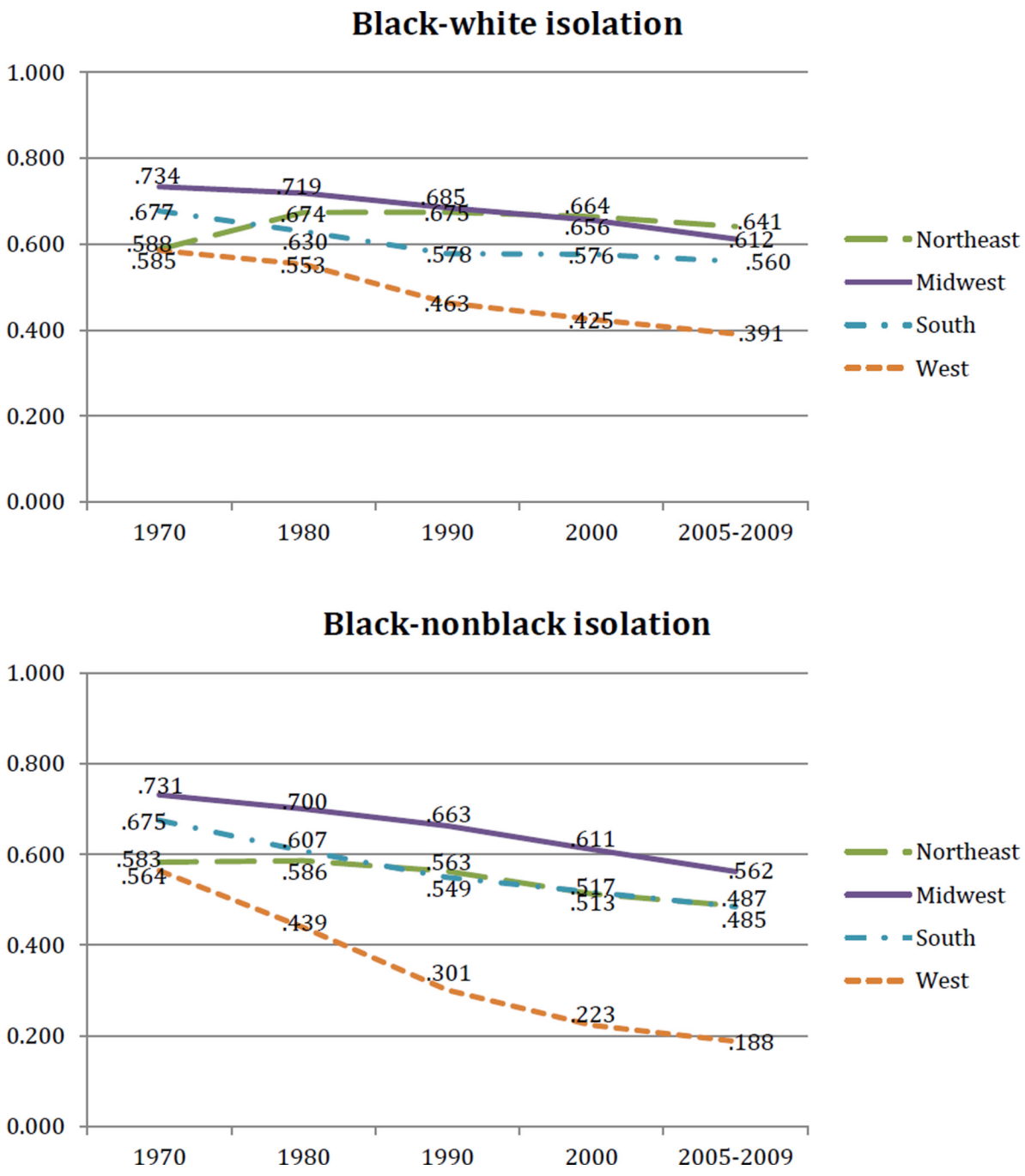

Fig. 2.
Black-white isolation (panel a) black-nonblack isolation (panel b), 1970 to 2005–2009

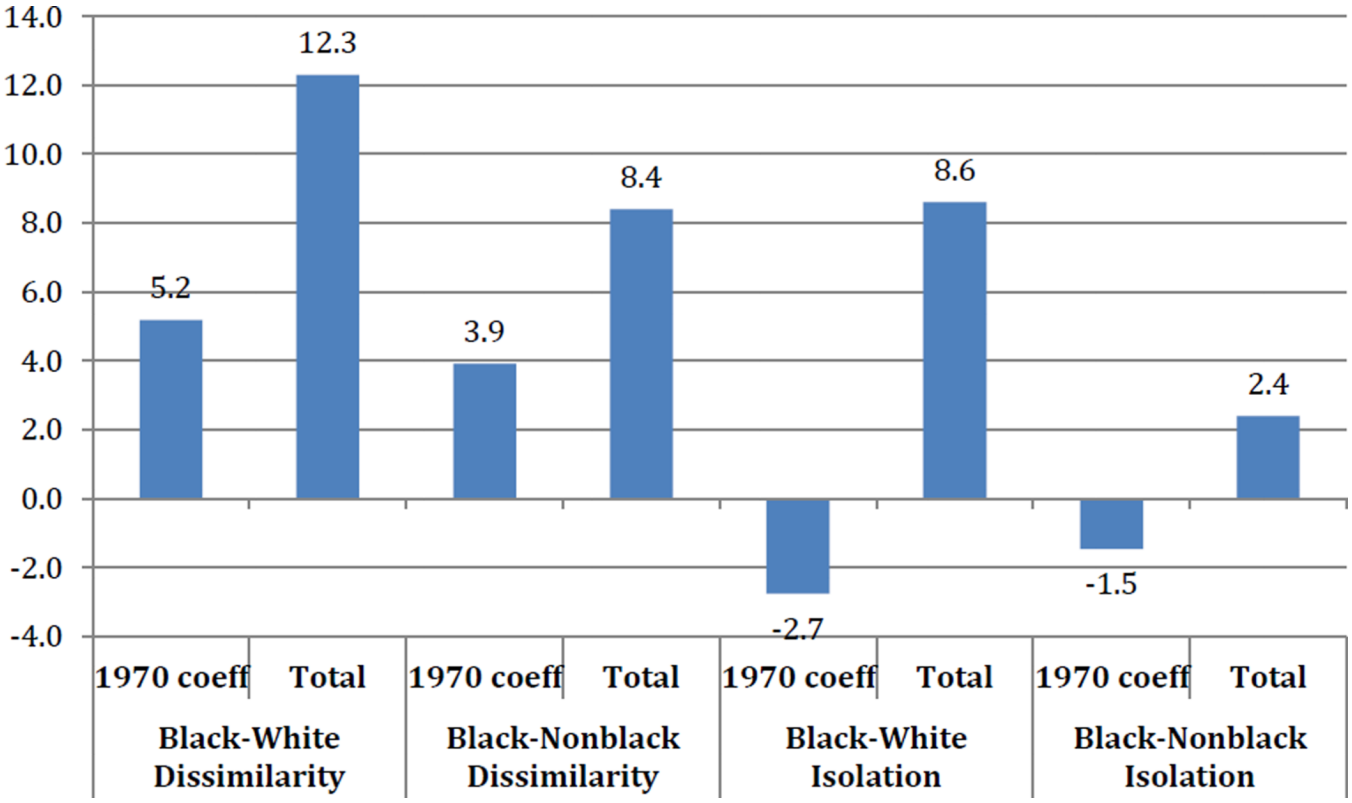

Fig. 3.
Percentage of the change in black segregation explained by regional shifts in the black population, by measure: 1970 to 2009

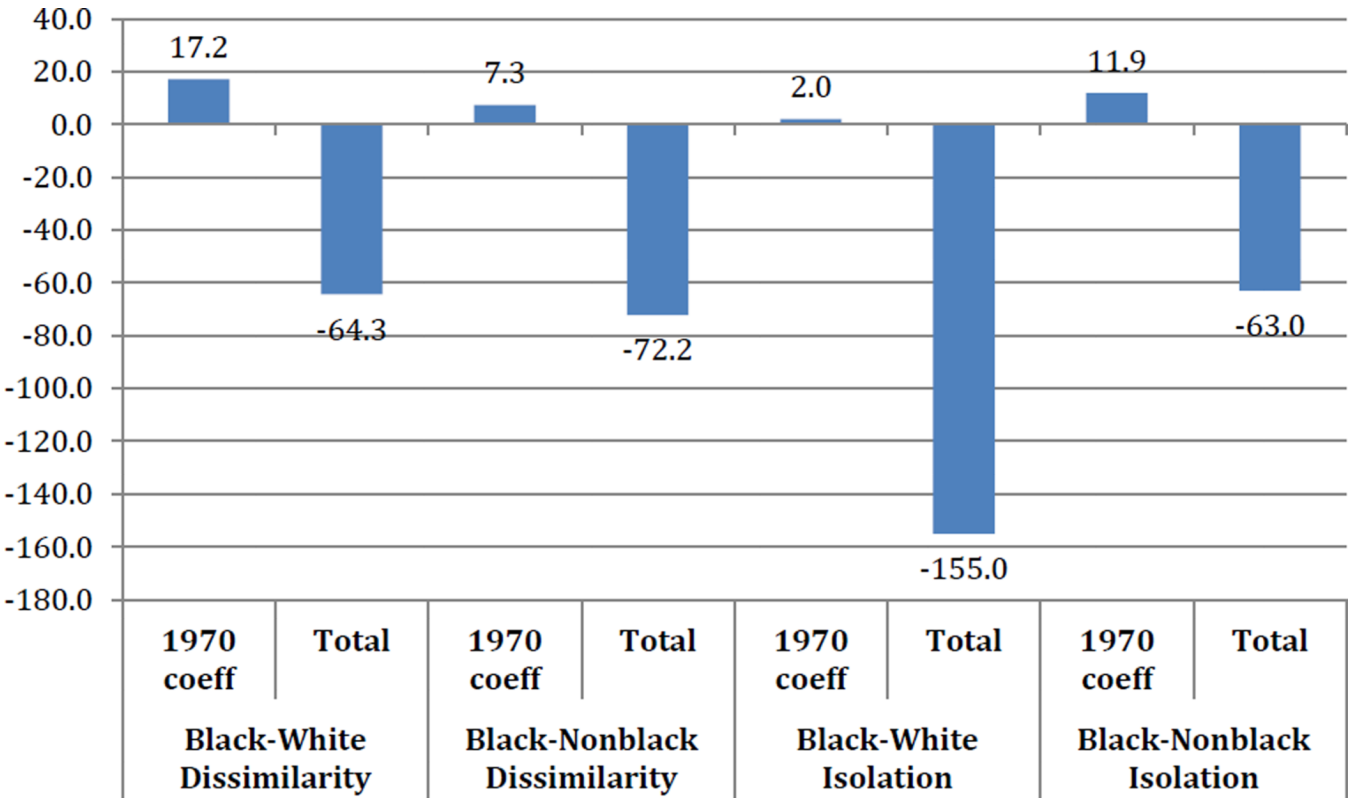

Fig. 4.
Percentage of the change in black segregation explained by shifts in metropolitan characteristics, by measure: 1970 to 2009

Table 1

Distribution of the black population by region, 1970–2009

	1970		1980		1990		2000		2005–2009		Change
	Number of Metro Areas	% of the Black Population[a]	Number of Metro Areas	% of the Black Population[a]	Number of Metro Areas	% of the Black Population[a]	Number of Metro Areas	% of the Black Population[a]	Number of Metro Areas	% of the Black Population[a]	Change in % of Black Pop. 1970 to 2005 – 2009
Total	229	100.0	286	100.0	318	100.0	329	100.0	343	100.0	
Region											
Northeast	31	24.7	38	21.7	42	20.6	43	19.4	44	18.6	−6.2
Midwest	60	24.8	69	23.5	76	21.4	84	20.8	89	19.8	−5.0
South	103	41.1	130	44.7	146	47.7	148	50.2	148	52.1	11.0
West	35	9.4	49	10.0	54	10.4	54	9.6	62	9.5	0.2

Notes: Indexes are weighted by size of the black population. Metropolitan areas with at least 1,000 blacks are included in the calculations.
Source: Neighborhood Change Database.

[a]The percentages refer to the percentage of the black metropolitan population (of those metropolitan areas included in the analyses) in a given region.

Table 2

Means and standard deviations for metropolitan-level variables used in regressions, 1970 and 2005–2009

	1970		2005–2009	
Independent Variables	**Mean**	**SD**	**Mean**	**SD**
Proportion Black	.12	60.53	.13	77.89
Proportion Other Race	.01	31.07	.24	152.26
Proportion Employed in Manufacturing	.26	74.14	.10	35.12
Proportion Employed in Government	.06	31.42	.05	18.89
Proportion in Military	.02	37.18	.01	18.41
Proportion Population Aged 65+	.09	17.31	.12	22.81
MA Population (logged)	14.32	115.00	14.45	121.00
Proportion Housing Units Built in Last 10 Yrs.	.26	69.79	.12	50.38
Proportion Owner-Occupied	.61	62.72	.65	55.36
Proportion Population in Suburbs	.51	125.83	.65	137.24
Proportion of the Young Population High School Dropout	.14	27.63	.06	15.57
Black-to-White Income Ratio	.62	47.49	.56	87.94
Black-to-Nonblack Income Ratio	.62	47.53	.62	128.82
No. of Metropolitan Areas	229		343	

Notes: Metropolitan areas with at least 1,000 blacks are included in the calculations. Means are weighted by the metropolitan-area population.
Sources: Neighborhood Change Database; 2005–2009 American Community Survey.

Table 3

Ordinary least squares regression with levels of black dissimilarity, 1970 and 2005–2009

	Black-White Dissimilarity								Black-Nonblack Dissimilarity							
	1970[a]				2005–2009				1970[a]				2005–2009			
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
Intercept	0.752	***	−0.185		0.730	***	0.065		0.750	***	−0.181		0.647	***	−0.014	
Region																
Northeast (omitted)																
Midwest	0.107	***	0.163	***	−0.013		0.068	***	0.108	***	0.163	***	0.049	***	0.113	***
South	−0.023		0.142	***	−0.172	***	−0.023	*	−0.022		0.141	***	−0.127	***	0.009	
West	0.056	*	0.124	***	−0.159	***	−0.057	***	0.052	*	0.117	***	−0.166	***	−0.030	*
Metropolitan Area–Level Controls																
Proportion black			−0.193	*			0.058				−0.197	*			0.092	*
Proportion other race			−0.740	*			−0.031				−0.637				−0.127	**
Proportion manufacturing			−0.075				−0.206				−0.073				−0.364	**
Proportion government			0.125				−0.185				0.130				−0.365	*
Proportion military			−0.214	*			−0.598	***			−0.214	*			−0.520	***
Proportion 65+ years old			0.262				0.075				0.263				0.107	
Log of MA population			0.062	***			0.046	***			0.061	***			0.040	***
Proportion housing units built in last 10 yrs.			−0.035				−0.923	***			−0.030				–1.064	***
Proportion homeownership			0.338	***			−0.016				0.343	***			0.140	
Proportion suburban population			−0.053				0.036				−0.053				0.053	**
Proportion of the young population high school dropout			−0.679	***			0.986	***			−0.669	***			0.893	***
Black-to-ref. group income ratio			−0.124				−0.092				−0.136				−0.032	
N	229		229		343		343		229		229		343		343	
Adjusted R^2	.267		.652		.456		.856		.266		.647		.488		.840	

Notes: Metropolitan areas with at least 1,000 blacks are included in the analyses. Results are weighted by metropolitan-area black population.

[a]Hispanics were not separated from blacks and whites in the 1970 census. We use non-Hispanic white and non-Hispanic black for 2005–2009.

*$p < .05$;

** $p < .01$;

*** $p < .001$

Table 4

Ordinary least squares regression with levels of black isolation, 1970 and 2005–2009

	Black-White Isolation								Black-Nonblack Isolation							
	1970[a]				2005–2009				1970[a]				2005–2009			
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
Intercept	0.588	***	−0.894	***	0.641	***	−0.413	***	0.583	***	−0.888	***	0.487	***	−0.613	***
Region																
Northeast (omitted)																
Midwest	0.146	***	0.211	***	−0.029		0.085	***	0.148	***	0.211	***	0.076	**	0.133	***
South	0.089	***	0.207	***	−0.081	***	−0.008		0.092	***	0.205	***	−0.002		0.014	
West	−0.003		0.135	***	−0.250	***	−0.111	***	−0.019		0.118	***	−0.299	***	−0.080	***
Metropolitan Area–Level Controls																
Proportion black			0.859	***			1.178	***			0.858	***			1.233	***
Proportion other race			−0.681				0.256	***			−0.732				−0.070	
Proportion manufacturing			0.077				0.049				0.074				−0.160	
Proportion government			−0.001				−0.098				0.005				−0.123	
Proportion military			−0.062				−0.226				−0.070				−0.179	
Proportion 65+ years old			0.433				0.592	**			0.430				0.601	***
Log of MA population			0.084	***			0.058	***			0.083	***			0.052	***
Proportion housing units built in last 10 yrs.			0.079				−0.719	***			0.088				−0.685	***
Proportion homeownership			0.300	**			−0.204	*			0.305	**			0.111	
Proportion suburban population			−0.002				0.064	**			−0.003				0.050	*
Proportion of the young population high school dropout			−0.772	**			0.754	***			−0.750	**			0.702	**
Black-to-ref. group income ratio			−0.140				−0.161	**			−0.146				−0.068	
N	229		229		343		343		229		229		343		343	
Adjusted R^2	.157		.674		.162		.897		.174		.679		.338		.911	

Notes: Metropolitan areas with at least 1,000 blacks are included in the analyses. Results are weighted by metropolitan-area black population.

[a]Hispanics were not separated from blacks and whites in the 1970 census. We use non-Hispanic white and non-Hispanic black for 2005–2009.

*$p < .05$;

**$p < .01$;

*** $p < .001$