
John Iceland
Penn State University

Kris Marsh
University of Maryland

Mark Gross
University of Maryland

* Direct all correspondence to John Iceland, 211 Oswald Tower, Department of Sociology, Penn State University, University Park, PA 16802, jiceland@pop.psu.edu.

Abstract

Black-white segregation has declined gradually but significantly over the past several decades. The goal of this study is to provide a detailed examination of the role of changes in the socioeconomic composition of the black population in explaining this trend. Using data from the 1970 to 2000 decennial censuses and the 2005-2009 American Community Survey we calculate levels of black-white segregation using three common measures (dissimilarity, information theory, and isolation) for a comparable set of metropolitan areas. We analyze the association between socioeconomic characteristics and segregation, and then decompose changes in segregation into change due the shifting composition of the black population versus other factors, including the changing effect of SES on black segregation over time.

Declines in black-white segregation have been gradual but significant over the past several decades. While African Americans continue to be highly segregated in many metropolitan areas—and indeed “hypersegregated” in two to three dozen—they are for the most part no longer confined to living in large and exclusively black ghettos (Cutler, Glaeser, and Vigdor 1999; Wilkes and Iceland 2004). There is considerable regional variation in black-white residential segregation, with newer cities in the South and West displaying lower and more rapidly declining segregation than older industrial cities of the Northeast and Midwest (Farley and Frey 1994; Logan, Stults, and Farley 2004). As such, it does not appear that ghettos are being reproduced in metropolitan areas with growing black populations.

Declines in black-white segregation since the 1960s and 1970s have coincided with other social and economic changes in the United States. The post World War II era saw the quickening of the Civil Rights movement and increasingly liberal white attitudes toward race. The 1968 Fair Housing Act barred racial discrimination in housing market transactions. According to public opinion surveys, by the 1970s most whites also endorsed the belief that white and black job applicants should have an equal chance at getting a job (Pager 2008). Most directly related to the focus of this study, this period also saw the rise of the black middle class (Landry 1988). Whereas older studies of segregation noted that blacks of all income levels used to live in extremely segregated neighborhoods (Myrdal 1944), higher income blacks today are more likely to live in integrated settings than lower income blacks (Iceland, Sharpe, and Steinmetz 2006). Yet the timing and the manner in which socioeconomic changes in the black population have affected long-term trends in segregation are not wholly understood.
The goal of this study is to therefore provide a detailed examination of the role of changes in the socioeconomic composition of the black population in explaining general trends in black-white segregation over the 1970 to 2009 period. Our analysis is guided by the following two questions:

1. How has the association between segregation and socioeconomic status (SES) changed over the past 40 years?
2. To what extent have shifts in the socioeconomic profile of the black population contributed to overall declines in black-white segregation over the period?

Using data from the 1970 to 2000 decennial censuses and the 2005-2009 American Community Survey we calculate levels of black-white segregation using three common measures (dissimilarity, information theory, and isolation) for a comparable set of metropolitan areas. We analyze the association between socioeconomic characteristics and segregation, and then decompose changes in segregation into change due the shifting composition of the black population versus other factors, including the changing effect of SES.

This analysis contributes to the segregation literature in two distinct ways. First, we examine change over the nearly 40-year period following the height Civil Rights movement from 1970 to 2009 and in a large set of metropolitan areas. Second, our decomposition approach will allow us to gauge the effect of the changing socioeconomic profile of the black population on black segregation. In this way this analysis will shed light on the implications of the growing black middle class for trends in black-white residential segregation over the past 40 years.

Background

The post civil rights era saw the emergence of a body of work related to understanding the development of the black middle class (Zipp 1994). Researchers have identified two main
reasons for the growth of the black middle class: (1) demographic and economic changes and (2) the civil rights movement (Landry 1988).

In the 1960s and 1970s, government employment grew rapidly, and unionized factory jobs subsequently declined (which disproportionately hurt blacks). The black-white wage differential was lower in the public sector than in the private sector, and blacks received greater financial benefits from working for the government than they generally received in the private sector. The notion that black economic success depended on the active intervention of the public sector has been widely accepted by scholars (Collins 1983; Edsall and Edsall 1991; Erie 1980; Farley and Allen 1987).

Since its growth in the 1960s and 1970s, the black middle class in the United States has been the subject of intense scholarly interest because of its relevance to discussions of discrimination, race, and upward mobility. More specifically, scholars have been interested in how the black middle class (seeking, like all members of the middle class, to escape the poor) maneuver their escape for improved life chances through a web of racial residential segregation spun by a discriminatory housing market (Adelman 2004; Logan 2000; Massey and Denton 1993).

One concern in the literature on the life chances of the black middle class has been the persistence of racial residential segregation—that is, the continuing concentration of white and black households in separate neighborhoods. Scholars agree that residential segregation has negative consequences for the life chances of blacks, but there is an ongoing debate about whether race, as opposed to socioeconomic status, continues to be a significant constraint on where blacks live (Massey and Denton, 1993; Wilson 1978; Wilson 1987). Among scholars who view race as a continuing constraint, a model of spatial/social buffering has become influential.
This model suggests that affluent and middle class blacks literally occupy a buffer zone between the white middle class and the black urban poor. The continued proximity of black middle class households to poor neighborhoods, together with their separation from white middle class neighborhoods, limits their upward mobility and consequently their life chances.

Wilson (1978) argues that racial barriers are less likely to constrain American blacks’ life chances than social class. In essence, given appropriate social and economic capital, Wilson suggests that blacks can freely move into affluent suburbs and not suffer constraints based on their race. Massey and Denton challenge this claim that segregation based on race has disappeared (Jargowsky, 1997; Wilson 1987) by arguing that segregation is omnipresent among blacks and is continuing to produce a black poor.

**Black Segregation and Socioeconomic Status**

Studies have documented a strong and consistent association between socioeconomic status and residential location (Alba and Logan 1993; Alba et al. 1997; Iceland and Wilkes 2006). However, many have argued that the spatial assimilation model does not seem to hold for all groups, especially Blacks, because of racial discrimination (Charles 2003; Massey and Denton 1993). Discriminatory practices include racial steering by real estate agents, unfair mortgage lending patterns, and even in some cases physical attacks when moving into white neighborhoods (Massey and Denton 1993; Meyer 2000; Yinger 1995).

[Note: more literature review on theory and the association between SES and black segregation in progress…]
Data and Methods

We will use the 1970 to 2000 geolytics census tract-level data, as well as data from the 2005-2009 to create our residential segregation indexes. We focus on the segregation of African Americans. In 2000 and afterward, when people could identify with more than one race on the census form, we classify blacks as those who marked that group alone. We will calculate the dissimilarity index (D), the information theory index (or Theil's H), and isolation (Pxx). There will be two different reference groups in these segregation calculations: (1) all those that are not black and (2) non-Hispanic whites.

The segregation indexes will measure the distribution of people of different groups across neighborhoods in housing and job market areas. As mostly commonly done, we define housing and job market areas as metropolitan areas. According to 2008 Census Bureau metropolitan definitions, there are 366 metropolitan areas (each with a population of at least 50,000 people) that contain 84 percent of the U.S. population. We include all metropolitan areas with at least 1,000 whites and 1,000 blacks in the study. We use census tracts to represent neighborhoods, as is also most commonly done in studies of residential segregation. Census tracts generally have between 2,500 and 8,000 people, with an average of 4,000 people. We drop tracts from the analysis where over a quarter of the total tract population is in institutional group quarters (such as prisons).

We start with descriptive cross-tabulations of segregation by year and socioeconomic categories. SES will be defined in various ways. We will use income quartiles, education (less than high school, high school, some college, and college graduate and beyond), and poverty levels. This will be followed by a regression-based decomposition analysis.
**Decomposition analysis**

We will investigate the role of population change by using a well-known regression decomposition technique (see Jones and Kelley 1984). For our purposes, we can conceive of changes in segregation from one decade to another as resulting from one or more of three effects. First, segregation may change in the interval \([t, t + 10k]\) (where \(k = 1\) to \(4\)) because there are more people in decade \(t + 10k\) than in decade \(t\) with characteristics that lead them to live in integrated (or segregated) neighborhoods. For example, highly educated people may be more likely than less educated people to live in integrated neighborhoods, and we know that the proportion of the population with a college degree or more has increased substantially over time.

Second, the effects of particular characteristics on the likelihood of living in integrated (or segregated) neighborhoods may have changed over time. For example, the highly educated in more recent periods may be relatively more likely to live in integrated neighborhoods than the highly educated in past decades. Finally, there may be interactions between the two types of effects.

In the language of regression decomposition analysis, we would say that the first type of effect is a difference in “endowments” or “attributes,” the second type is a difference in “effects” or “coefficients,” and the third is an “interaction” (Winsborough and Dickenson 1971; Jones and Kelley 1984). Regression decomposition is a method of partitioning differences in average scores on some dependent variable \(Y\) into differences in attributes, differences in effects, and interactions between these two components. Much of the literature employing these techniques has focused on differences between social groups defined on the basis of sex or race. We will expand this technique to compare two groups of metropolitan areas that differ on the basis of
period, say, 1970 to 2005-2009. In this example, the Winsborough/Dickenson decomposition would be written as follows:

\[
(Y^{2010} - Y^{1970}) = \left( \beta_0^{2010} - \beta_0^{1970} \right) + \sum_{k=1}^{K} \beta_k^{1970} \left( X_{k}^{2010} - X_{k}^{1970} \right) + \sum_{k=1}^{K} X_{k}^{1970} \left( \beta_k^{2010} - \beta_k^{1970} \right) + \sum_{k=1}^{K} \beta_k^{2010} \left( \beta_k^{2010} - \beta_k^{1970} \right) + \beta_k^{1970} \left( X_{k}^{2010} - X_{k}^{1970} \right)
\]

We will calculate the percentage of the change from 1970 to 2005-2009 in black-white dissimilarity that is due to changes in the average levels of independent variables $X_1$ to $X_k$ (the second term on the right-hand side)—in this case the proportion of the black population in different SES categories, and changes in the effect of SES (the third term), and their interaction (the fourth term). The differences in the intercepts would be change from 1970 to 2005-2009 that is unexplained by the variables in the model.

More concretely, for any independent variable $X_k$, we can estimate the percentage of the change from 1970 to 2005-2009 (or any pair of censuses) in metropolitan area-level segregation scores due to changes in attributes as:

\[
\frac{\beta_k^{1970} \left( X_{k}^{2010} - X_{k}^{1970} \right)}{Y^{2010} - Y^{1970}} \times 100,
\]

the percentage of the change due to changes in effects as:

\[
\frac{X_{k}^{1970} \left( \beta_k^{2010} - \beta_k^{1970} \right)}{Y^{2010} - Y^{1970}} \times 100,
\]

and the percentage of the change due to the interaction of attributes and effects as:

\[
\frac{\left( \beta_k^{2010} - \beta_k^{1970} \right) \left( X_{k}^{2010} - X_{k}^{1970} \right)}{Y^{2010} - Y^{1970}} \times 100.
\]

The sum of the percentages represented in the three equations above represent the total amount of the change associated with each of these components.
[More forthcoming…]
References


