A Research Note on Trends in Black Hypersegregation

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Abstract In this note, we use a consistently defined set of metropolitan areas to study patterns and trends in black hypersegregation from 1970 to 2010. Over this 40-year period, 52 metropolitan areas were characterized by hypersegregation at one point or another, although not all at the same time. Over the period, the number of hypersegregated metropolitan areas declined by about one-half, but the degree of segregation within those areas characterized by hypersegregation changed very little. As of 2010, roughly one-third of all black metropolitan residents lived in a hypersegregated area.

Keywords Residential segregation · Hypersegregation · Spatial isolation · African Americans · Dissimilarity

Introduction

It has been nearly four decades since Pettigrew (1979) identified black residential segregation as the "structural linchpin" of American race relations, and evidence in support of this hypothesis has only grown stronger over time. In the 1980s, Wilson (1987) pointed to the rising concentration of poverty in black neighborhoods and argued that this condition perpetuated disadvantage among African Americans, isolating them from jobs, alienating them from mainstream norms, and generating a scarcity of employed, "marriageable" males. Massey (1990) directly connected concentrated black poverty to racial segregation by developing a simulation model to show how rising rates of black poverty interact with high levels of black segregation to concentrate poverty in black neighborhoods. Massey and Denton (1993) went on to argue that by concentrating poverty and its negative correlates, segregation created a uniquely harsh and disadvantaged social environment for African Americans.

Massey and Fischer (2000) later showed that the concentration of black poverty was exacerbated by class segregation among African Americans. More recently, Quillian (2012:354) demonstrated both mathematically and empirically that black poverty

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concentration actually stems from a more complex interaction between poverty and three types of segregation: racial segregation, poverty-status segregation within race, and segregation of blacks from high- and middle-income members of other racial groups. Although the poverty-by-segregation interaction proved to be more complicated than originally posited by Massey (1990), Quillian (2012:370) nonetheless concluded that given conditions prevailing in metropolitan America, "Massey's theoretical argument is correct: segregation and poverty concentration interact for the reasons Massey's simulation model made clear."

Subsequent research has confirmed the close connection between black segregation and spatially concentrated disadvantage, as well as the strong negative influence of concentrated disadvantage on black life chances (Massey and Brodmann 2014; Sharkey 2013). Owing primarily to racial segregation, black and white distributions of average neighborhood income barely overlap (Sampson 2012). As a result, the most affluent African Americans routinely experience levels of neighborhood disadvantage that are rarely faced even by the poorest whites (Massey and Brodmann 2014; Peterson and Krivo 2010). According to Sharkey, one-half of all African Americans have lived in the poorest quartile of urban neighborhoods for at least two consecutive generations, compared with just 7 % of whites; and "the reason children end up in neighborhood environments similar to those of their parents is not that their parents have passed on a set of skills, resources, or abilities to their children . . . . Instead, parents pass on the place itself to their children" (Sharkey 2013:21).

Owing to the important role that it plays in concentrating poverty, therefore, segregation is critical to understanding racial stratification in the United States today. The concentration of neighborhood poverty is particularly high in "hypersegregated" areas such as Chicago (Sampson 2012). Whenever a group is highly segregated along multiple geographic dimensions it is said to be hypersegregated. In their analysis of 1980 census data, Massey and Denton (1989) found that in 16 metropolitan areas, African Americans were highly segregated on at least four of the five characteristic dimensions of segregation. Using 1990 census data, Denton (1994) expanded the list of black hypersegregated metropolitan areas to 29; and in their analysis of 2000 census data, Wilkes and Iceland (2004) also identified 29 hypersegregated areas, although not necessarily the same ones identified by Denton.

Here we update prior work on hypersegregation using data from the 2010 census. Rather than restricting our attention to just one census year, however, we place the subject in a broader historical context by analyzing trends across a large set of consistently defined metropolitan areas from 1970 to 2010. We begin by describing our data and methods, and then proceed to document changes in the number of hypersegregated areas and average levels of segregation observed across five dimensions over the past four decades. Turning our attention to 2010, we identify 21 metropolitan areas where African Americans remain hypersegregated and then analyze trends and patterns of segregation in these metropolitan areas to assess the extent to which African Americans continue to be hypersegregated more than four decades after the passage of the Fair Housing Act.

Data and Methods

As noted earlier, the concept of hypersegregation was developed by Massey and Denton (1989) to describe metropolitan areas in which African Americans were highly

segregated on at least four of the five dimensions of segregation they had identified in an earlier analysis (Massey and Denton 1988). *Unevenness* is the degree to which blacks and whites are unevenly distributed across neighborhoods in a metropolitan area; *isolation* is the extent to which African Americans live in predominantly black neighborhoods; *clustering* is the degree to which neighborhoods inhabited by African Americans are clustered together in space; *concentration* is the relative amount of physical space occupied by African Americans within a given metropolitan environment; and *centralization* is the degree to which blacks reside near the center of a metropolitan area.

For this study, we drew on census tract data compiled by Logan and Stults (2011) for 287 consistently defined metropolitan areas from 1980 to 2010, and for 1970, we extracted tract data for the same set of metropolitan areas using the professional version of Social Explorer (www.socialexplorer.com). Following the procedures of Massey and Denton (1989), we measured unevenness using the black-white dissimilarity index, isolation using the P* black isolation index, clustering using the black-white spatial proximity index, concentration using the relative concentration index, and centralization using the absolute centralization index. Using census tracts to indicate "neighborhoods," we computed all five indices for African Americans in each metropolitan area during each census year. Readers are referred to Massey and Denton's (1988) original article for formal definitions, formulae, and detailed discussion of the five measures. Here we offer brief conceptual descriptions of the indices and what they measure.

The dissimilarity index gives the relative number of blacks and whites who would have to exchange neighborhoods to achieve an even residential distribution (Duncan and Duncan 1955), and the P* isolation index states the percentage of African Americans living in the neighborhood of the average black resident (Lieberson 1981). The spatial proximity index assesses the differential clustering in space of blacks and whites and equals 0 if there is no difference in clustering and 100 when all blacks are clustered together in a set of contiguous black neighborhoods and all whites are clustered together in a set of contiguous white neighborhoods (White 1983). The final two indices derive from work by Duncan et al. (1961). The concentration index compares the total amount of physical space occupied by blacks and whites and takes a value of 0 when two groups occupy the same amount of space and 100 when blacks occupy the smallest amount of physical space possible compared with whites. The centralization index gives the proportion of blacks who would have to change neighborhoods to achieve an even distribution around the geographic center of the metropolitan area.

Four Decades of Black Hypersegregation

Over the period from 1970 to 2010, 52 metropolitan areas satisfied the criteria for black hypersegregation at one point or another. These metropolitan areas are listed in alphabetical order in Table 1. When it comes to the hypersegregation of African Americans, the South historically has led the way, with 22 entries on the list, followed by 18 in the Midwest and 12 in the Northeast, but only two in the West: Denver and Las Vegas. The list obviously contains many exemplars of well-known segregated black ghetto communities. In the Northeast, the list includes New York and Philadelphia; in

Table 1 Metropolitan areas ever hypersegregated, 1970–2010

Albany, GA	Dayton, OH	Las Vegas, NV	Richmond, VA
Amarillo, TX	Denver, CO	Louisville, KY	Roanoke, VA
Asheville, NC	Detroit, MI	Milwaukee, WI	Rochester, NY
Atlanta, GA	Flint, MI	Mobile, AL	Saginaw, MI
Baltimore MD	Fort Wayne, IN	Monroe, LA	Savannah, GA
Birmingham, AL	Gadsden, AL	Muncie, IN	Springfield, MA
Boston, MA	Grand Rapids, MI	Nashville, TN	St. Louis, MO
Buffalo, NY	Hartford, CT	New Orleans, LA	Syracuse, NY
Chattanooga, TN	Houston, TX	New York, NY-NJ	Toledo, OH
Chicago, IL	Indianapolis, IN	Oklahoma City, OK	Washington, DC
Cincinnati, OH	Jacksonville, FL	Omaha, NE-IA	Wichita, KS
Cleveland, OH	Kansas City, MO	Philadelphia, PA	Winston-Salem, NC
Columbus, OH	Lakeland, FL	Pittsburgh, PA	York, PA

the Midwest, Chicago, Cleveland, and Detroit; and in the South, Baltimore, the District of Columbia, and New Orleans.

At no point between 1970 and 2010 were all 52 metropolitan areas hypersegregated at the same time, however. Over the four decades, segregation in some areas intensified to meet the criteria for hypersegregation, while in other areas segregation moderated to drop out of that classification. Figure 1 shows trends in the number of hypersegregated areas from 1970 through 2010, along with average segregation scores computed across the five dimensions. In 1970, just after the 1968 Fair Housing Act banned racial discrimination in the sale or rental of homes—but before the 1974 Equal Credit Opportunity Act and the 1977 Community Reinvestment Act had outlawed lending discrimination against black individuals and neighborhoods—40 metropolitan areas satisfied the criteria for black hypersegregation. In the wake of the civil rights legislation of the 1960s and 1970s, however, the number dropped to 35 in 1980; but the number changed little over the next two decades, remaining at 33 in 2000. It was only after 2000 that the number of hypersegregated areas substantially declined to reach 21 in 2010.

Figure 1 also shows the trend in average segregation across five dimensions to reveal the very slow place of integration in hypersegregated areas. The average segregation score remained at roughly 75 from 1970 to 1990 before declining to 73 in 2000 and then to 70 in 2010; still, 70 is a very high level of segregation by any standard. Despite the modest decline in segregation within hypersegregated metropolitan areas by 2010, however, the drop in the *number* of hypersegregated areas nonetheless reduced African Americans' exposure to extreme segregation over the period. Figure 2 presents bar charts to indicate the relative number of blacks who experienced hypersegregation in 1970 and 2010. Among all African Americans living in the United States in 1970, nearly one-half (47 %) lived in a hypersegregated metropolitan area, a figure that fell to 26 % by 2010 (data on total black populations come from the decennial census). Likewise, among black metropolitan residents, 61 % were hypersegregated in 1970 compared with 32 % in 2010. Clearly, then, some progress toward residential desegregation has been made over the past four decades.
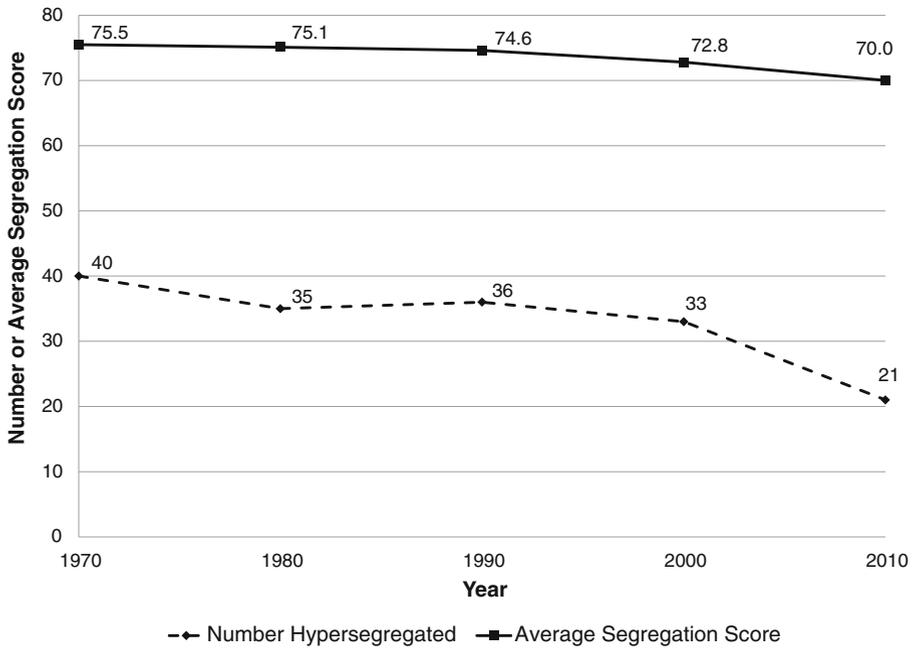
Fig. 1 Number of metropolitan areas where African Americans were hypersegregated and average level five-dimensional segregation
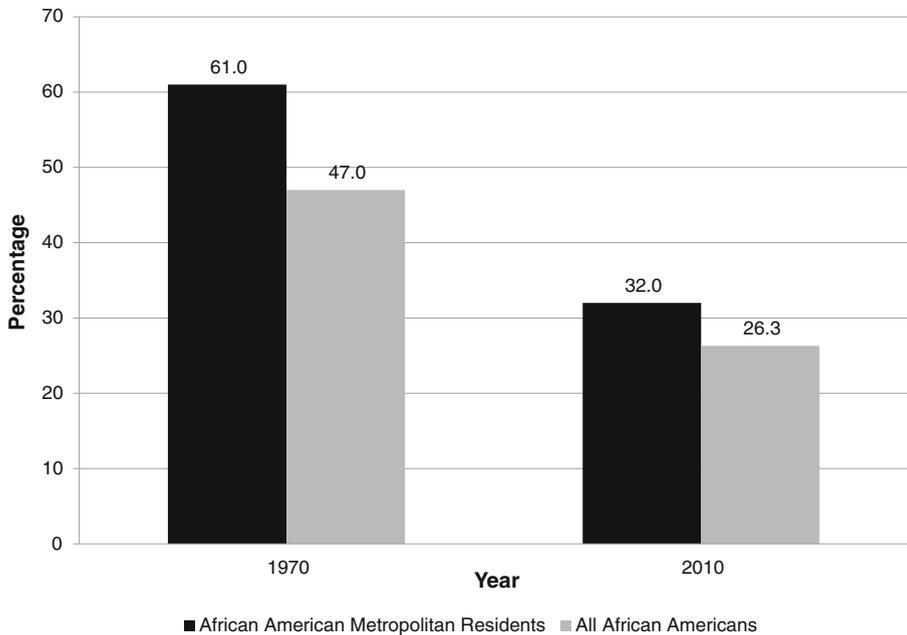

Fig. 2 Percentage of African Americans living in hypersegregated metropolitan areas

Black Hypersegregation in 2010

In Fig. 3, we consider the overall exposure of metropolitan African Americans to segregation in the present day by classifying African Americans into five categories based on the degree of segregation prevailing in the metropolitan areas where they lived in 2010. The first category, Hypersegregated 5, includes metropolitan areas where African Americans are highly segregated across all five dimensions simultaneously. It accounts for 14 % of all black metropolitan residents. These are the most racially segregated metropolitan areas in America. Another 18 % of black metropolitan residents live in Hypersegregated 4 areas, where blacks are segregated on four of the five geographic dimensions. The 21 % of black urban dwellers classified as living in High Segregation metropolitan areas live in areas that have a dissimilarity index of 60 or greater but do not satisfy the criteria for hypersegregation. Adding across these three categories, we see that more than one-half of all metropolitan African Americans continued to live under conditions of high segregation or hypersegregation in 2010.

Moderate Segregation is defined as living in a metropolitan area where the black-white dissimilarity index varies from 30 to 60, and 46 % of all black metropolitan residents live under such circumstances, leaving just 0.8 % of all black metropolitan residents who live in an area characterized by Low Segregation (a dissimilarity index less than 30). By way of contrast, in 2010, 94 % of Asians and 74 % of Hispanics lived in metropolitan areas characterized by moderate residential segregation, and 6 % of the former and 2 % of the latter live in areas characterized by low segregation. Therefore, whereas low-to-moderate segregation is experienced by a minority of African Americans, these residential circumstances are experienced by all Asians and three-quarters of Hispanics, underscoring the continued distinctiveness of black segregation in metropolitan America.
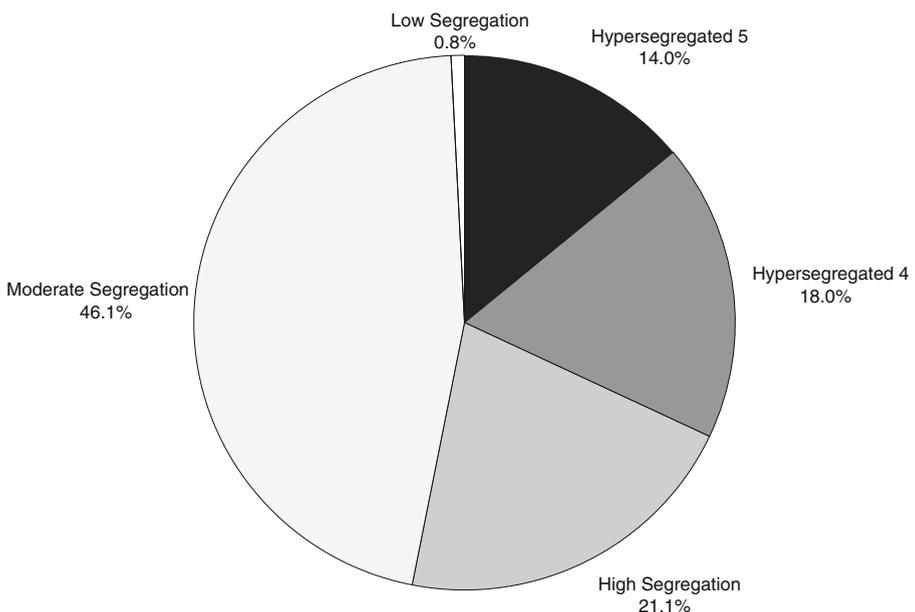

Fig. 3 Percentage of metropolitan African Americans living at different levels of racial segregation in 2010

Table 2 lists the specific metropolitan areas where African Americans were still hypersegregated in 2010. The top panel shows areas where black segregation was high across all five dimensions, and the bottom panel shows areas where black segregation was high on just four dimensions. With two exceptions, the top panel is dominated by older manufacturing centers in the Midwest (Chicago, Cleveland, Detroit, Flint, and St. Louis); and the two metropolitan areas from the South, Baltimore and Birmingham, are among the most industrial areas in that region. The bottom panel includes two Midwestern areas (Dayton and Kansas City), as well as six industrial areas in the Northeast (Boston, Hartford, New York, Philadelphia, Rochester, and Syracuse). The five remaining five hypersegregated areas are all in the South (Chattanooga, Gadsden, Mobile, Monroe, and Winston-Salem).

A cursory perusal of the average scores computed for each dimension at the bottom of each panel reveals that segregation levels are generally higher in metropolitan areas where African Americans remain highly segregated across all five dimensions. With respect to unevenness, the average black-white dissimilarity score is 71.1 in the top

Table 2 Hypersegregated metropolitan areas in 2010

	Unevenness	Isolation	Clustering	Concentration	Centralization	Average
High Score on All Five Dimensions						
Baltimore	64.3	62.4	62.6	79.1	79.1	69.5
Birmingham	65.2	62.6	78.3	68.3	79.3	70.7
Chicago	75.2	64.8	86.3	79.1	79.6	77.0
Cleveland	72.6	64.7	80.6	85.4	81.9	77.0
Detroit	74.0	70.0	82.6	86.2	74.6	77.5
Flint	67.3	61.7	84.2	80.1	84.1	75.5
Milwaukee	79.6	65.5	100.0	87.1	91.2	84.7
St. Louis	70.6	62.0	75.9	87.3	91.2	77.4
Average	71.1	64.2	81.3	81.6	82.6	76.2
High Score on Four Dimensions						
Boston	61.5	31.1	64.8	75.2	79.2	62.4
Chattanooga	63.0	48.6	66.8	78.8	62.6	64.0
Dayton	63.3	55.1	63.4	70.4	76.7	65.8
Gadsden	66.4	47.0	67.2	81.7	81.4	68.7
Hartford	62.3	35.4	80.5	71.1	70.7	64.0
Kansas City	58.6	43.3	52.1	86.5	88.1	65.7
Mobile	59.0	62.2	42.0	68.4	72.6	60.8
Monroe	63.4	66.7	62.6	51.7	71.6	63.2
New York	76.9	51.3	78.6	80.6	83.6	74.2
Philadelphia	67.0	55.8	85.0	69.7	70.0	69.5
Rochester	63.0	40.3	98.9	75.7	78.6	71.3
Syracuse	64.6	37.5	69.0	83.7	87.5	68.5
Winston-Salem	56.1	43.4	55.4	74.8	81.2	62.2
Average	63.5	47.5	68.2	74.5	77.2	66.2

panel but 63.5 in the bottom panel. In terms of black isolation indices, the respective numbers are 64.2 and 47.5. Isolation is the dimension on which metropolitan areas most commonly fall short of inclusion in the Hypersegregation 5 category. On the remaining three dimensions, the top and bottom averages are generally closer, with respective figures of 81.3 and 68.2 for clustering, 81.6 and 74.5 for concentration, and 82.6 and 77.2 for centralization.

Considering segregation scores averaged for each metropolitan area across all five dimensions (the last column), by far the most segregated metropolitan area in the United States is clearly Milwaukee, with an average five-dimensional score of around 85—some 9 % greater than its next closest competitor, Detroit, at 78. After Detroit, the next highest scores occur in St. Louis, Cleveland, and Chicago, each with a score around 77. Flint comes in at 75; New York, at 74; and Rochester and Birmingham, at 71. Philadelphia and Baltimore are tied for 10th place, with an average score of around 70. A casual perusal of the research literature reveals that these metropolitan areas, as well as the rest of those on the list, continue to account for a disproportionate share of the nation's neighborhoods of concentrated disadvantage and poverty (see Jargowsky 1997; Peterson and Krivo 2010; Sampson 2012; Sharkey 2013; Small 2004).

Inspection of trends in average five-dimensional segregation scores reveals little evidence of decline in segregation in these urban centers (not shown). Segregation increased in some metropolitan areas and declined in others, but scores converged on a narrow range above 60. In those areas that were highly segregated on all five dimensions, average scores fell in the range of 71 to 86 by 2010; by contrast, in areas segregated on four dimensions, scores fell in the range of 61 to 74. Of the six metropolitan areas where average segregation levels increased from 1970 to 2010, five were in the South (Birmingham, Chattanooga, Gadsden, Mobile, and Monroe). As Massey and Denton (1993) noted, when the social segregation of Jim Crow broke down in the wake of the Civil Rights Era, it was replaced increasingly by residential segregation.

Conclusion

Until the civil rights era of the 1960s, high segregation was almost universal across U.S. metropolitan areas. In 1970, 61 % of all black urbanites lived in one of 40 hypersegregated metropolitan areas, constituting nearly half the total black population of the United States. Over the ensuing four decades, some metropolitan areas ceased being hypersegregated but others became hypersegrated, yielding a total of 52 areas that experienced the condition at some point over the period. The total number of hypersegregated areas nonetheless fell over time, slowly before 2000 and more rapidly thereafter; but the average level of multidimensional segregation within hypersegregated areas changed relatively little. Although the number of such areas was almost cut in half from 1970 to 2010, falling from 40 to 21, average segregation within hypersegregated areas fell by only 8 %, going from 75.5 to 70. Nonetheless the share of black metropolitan residents living under conditions of hypersegregation dropped to around one-third by 2010.

Despite evidence of progress in many metropolitan areas, therefore, the United States has not become a race-blind society. Because of segregation, race continues to

matter a great deal in determining the fate of African Americans (Sharkey 2013). Research shows that black neighborhoods were specifically targeted for predatory lending during the housing boom (Hartman and Squires 2013) and that the level of black-white segregation was the strongest single predictor of the number and rate of foreclosures across metropolitan areas during the housing bust (Rugh and Massey 2010). Whereas mortgages to white borrowers were issued mainly for the purchase of homes, those issued to blacks were predominantly home equity loans, often to borrowers whose homes were paid off (Rugh et al. forthcoming). As a result, African Americans experienced a far greater loss of wealth than whites during the housing bust (Kochhar et al. 2011).

Although hypersegregation may have become less common in recent years, it hasn't disappeared, but has instead become centered in a subset of metropolitan areas containing some of the nation's largest black communities. It is perhaps no coincidence that as of this writing, Ferguson, MO, a predominantly black suburb in the hypersegregated St. Louis metropolitan area is under National Guard occupation to prevent rioting in the wake of a police shooting, putting it at the center of discussions about the meaning of race in the Age of Obama. Although the United States may have been able to elect a black President, it has not been able to eradicate hypersegregation from its urban areas, and we can continue to expect a disproportionate share of the nation's racial conflicts and disturbances to occur within these intensely segregated landscapes.

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