



Does Hypersegregation Matter for Black-White Socioeconomic Disparities?

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Abstract

Massey and Denton's concept of hypersegregation describes how multiple and distinct forms of black-white segregation lead to high levels of black-white stratification. However, numerous studies assessing the association between segregation and racial stratification applied only one or two dimensions of segregation, neglecting how multiple forms of segregation combine to potentially exacerbate socioeconomic disparities between blacks and whites. We address this by using data from the U.S. Census from 1980 to 2010 and data from the American Community Survey from 2012 to 2016 to assess trajectories for black-white disparities in educational attainment, employment, and neighborhood poverty between metropolitan areas with hypersegregation and black-white segregation, as measured by the dissimilarity index. Using a time-varying measure of segregation types, our results indicate that in some cases, hypersegregated metropolitan areas have been associated with larger black-white socioeconomic disparities beyond those found in metropolitan areas that are highly segregated in terms of dissimilarity but are not hypersegregated. However, the contrasts in black-white socioeconomic inequality between hypersegregated metropolitan areas and those with high segregation largely diminish by the 2012 to 2016 observation.

Keywords Residential segregation · Racial inequality · Hypersegregation

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Introduction

In the United States, residential segregation has long been associated with socioeconomic disparities between blacks and whites (Massey and Denton 1993; Massey and Tannen 2016). These socioeconomic disparities were fostered historically by formal discriminatory policies of institutions and informal actions of groups and individuals. For instance, redlining in credit lending limited blacks in obtaining home loans, housing covenants placed strictures on selling homes to blacks, and racial terrorism by whites sought to intimidate blacks and sometimes to inflict severe physical harm on them (Massey and Denton 1993). These and other discriminatory actions created an extensive system of segregation that prevailed throughout many metropolitan areas during much of the twentieth century. Accordingly, the high level of residential segregation led many black households to experience extreme difficulties in escaping the poor economic and social conditions present in urban neighborhoods (Massey and Denton 1993).

In response to what appeared to be a unique form of segregation that concentrated large proportions of blacks in poor neighborhoods, Massey and Denton (1989) introduced a new theoretical concept called *hypersegregation*. They defined hypersegregated metropolitan areas as having numerous blacks living in neighborhoods that were predominantly black and surrounded by other predominantly black neighborhoods that were concentrated in relatively small spaces in a central city (Massey and Denton 1989, 1993). To qualify as hypersegregated, metropolitan areas had to score high on at least four of five distinct dimensions of segregation: evenness, isolation, clustering, concentration, and centralization (Massey and Denton 1989). *Evenness* indicates the differential representation of blacks and whites across neighborhoods; *isolation* refers to the likelihood of blacks sharing neighborhoods with whites; *clustering* measures the degree that black neighborhoods form a contiguous enclave; *concentration* describes the extent to which blacks reside in a relatively small geographic area; and *centralization* determines whether blacks are located at the urban core.

In their initial study of hypersegregation in the 50 largest metropolitan areas and 10 metropolitan areas with large Hispanic populations, Massey and Denton (1989) identified 18 metropolitan areas where blacks were hypersegregated in 1980. Since that time, periodic updates employing new census data have documented the continuing presence of black hypersegregation in roughly 20 metropolitan areas in the United States (Massey and Tannen 2015). Consequently, Massey (2015) reported that one-third of blacks living in metropolitan areas experienced hypersegregation as of 2010, demonstrating how a substantial percentage of blacks continue to reside in extremely segregated metropolitan areas. However, much of the research literature investigating the association between segregation and racial stratification applied only one or two dimensions of segregation, such as evenness via the dissimilarity index (Iceland and Wilkes 2006; vonLockette 2010), overlooking Massey and Denton's theory of how multiple forms of segregation combine to influence socioeconomic disparities between blacks and whites (Massey and Tannen 2016). Although many scholars have invoked fewer dimensions of segregation than found in Massey and Denton's measure of hypersegregation and produced impactful findings on racial stratification (Peterson and Krivo 2010; South et al. 2011), this limited reference to hypersegregation in the

literature inspires a number of questions. For instance, it is unclear whether studying one dimension of segregation—such as evenness based on the widely used dissimilarity index—fully captures black-white differences in socioeconomic status compared with hypersegregation, which measures multiple dimensions of segregation. Moreover, little is known about whether hypersegregation has continued to describe higher black-white inequality compared with metropolitan areas that are not hypersegregated but are highly segregated in terms of the commonly used dissimilarity index.

Thus, in the present study, we use decennial data from the U.S. Census from 1980 to 2010 and data from the American Community Survey (ACS) from 2012 to 2016 to investigate whether differences in black-white disparities in educational attainment, employment, and neighborhood poverty are larger in hypersegregated metropolitan areas than in nonhypersegregated metropolitan areas that possess various levels of black-white dissimilarity. Because levels of segregation changed substantially since 1980 (Logan and Stults 2011), we measure the aforementioned metropolitan segregation types using a time-varying indicator to assess whether black-white differences in socioeconomic inequality related to these segregation types have changed over time. Studying black-white inequality across multiple socioeconomic indicators has the potential to demonstrate whether hypersegregation, as conceived by Massey and Denton (1989), is uniquely associated with greater black disadvantage. Additionally, the investigation of whether hypersegregation is distinctly related to racial differences in socioeconomic outcomes is important given that individual-level socioeconomic status and exposure to favorable contexts are salient to upward mobility.

Background and Theory

The Importance of Segregation

For decades, social scientists have tracked the residential segregation of blacks from whites, consistently observing that segregation is associated with acute disadvantage and concentrated poverty for blacks. William Julius Wilson's (1987) seminal piece, *The Truly Disadvantaged*, detailed the concentrated poverty that many blacks encountered in the 1980s. His thesis was that the spatial mismatch between inner-city black populations and emerging industry in white suburban areas contributed to high rates of joblessness, poor wages, crime, mother-only families, and other social ills concentrating in black neighborhoods. These multifarious social disadvantages were exacerbated by severely underfunded public housing that relegated poor black households to isolated parts of metropolitan areas.

In response to Wilson, Massey and Denton (1993) theorized in their highly influential book *American Apartheid* that residential segregation was the proximate cause of high-density, poor black neighborhoods in many metropolitan areas rather than Wilson's argument that deindustrialization, stagnant wages, and joblessness functioned as the primary causes of concentrated poverty for inner-city blacks. Massey and Denton (1993) argued that residential segregation separated lower-poverty from higher-poverty racial groups, leading to the spatial concentration of higher-poverty racial groups—a theory congruent with prior scholars who asserted that residential segregation was the structural linchpin in racial inequality in the United States (Pettigrew 1979; Schuman and Bobo 1988).

Quillian (2012) investigated the central theses of these two prominent books, finding that the mechanisms associated with black concentrated poverty were, to some extent, more complex than what either Wilson (1987) or Massey and Denton (1993) had originally postulated. Quillian (2012:354) concluded that black concentrated poverty was driven by what he termed “three segregations: racial segregation, poverty-status segregation within race, and segregation from high- and middle-income members of other racial groups.” Despite the added pathway for explaining Massey and Denton’s (1993) original formulation of black concentrated poverty, Quillian generally agreed that racial residential segregation was a key feature in the creation of impoverished neighborhood conditions for blacks. Corroborating this finding by Quillian, South et al. (2011) observed that segregation was related to black-white differences in exposure to concentrated poverty, with higher levels of black-white residential segregation raising black households’ odds of remaining stuck in poor neighborhoods.

The Influence of Segregation on Micro-Level Outcomes

Beyond the role of segregation in relegating blacks to poor neighborhoods, an expansive literature has connected black-white residential segregation to a host of other negative outcomes for black households. For instance, racial segregation relates to greater black-white disparities in employment opportunities (vonLockette 2010), exposure to crime (Sharkey and Sampson 2010), contact with toxic pollutants (Crowder and Downey 2010), school quality (Frankenberg et al. 2003), accrual of wealth (Lipsitz and Oliver 2010), foreclosures (Rugh and Massey 2010), and individual health issues (Roux and Mair 2010). Moreover, residing in segregated metropolitan areas, and the exposure to concentrated disadvantage it engenders, can have pernicious effects on children and adolescents. Sampson et al. (2008) demonstrated that later verbal ability among black children who lived in highly disadvantaged neighborhoods was similar to missing a year or more of schooling. Concerning adolescents, Quillian (2014) found that black-white residential segregation was related to lower levels of high school graduation for black students. Overall, residential segregation has important repercussions for broader racial differences in well-being. Yet, despite this evidence, recent declines in residential segregation by race raise questions about the extent to which hypersegregation remains a salient component of racial stratification.

The Decline of Segregation

Recent scholarship has observed a slow but steady attenuation in the residential segregation of blacks from whites over the past 40 years. For instance, in 1960 and 1970, approximately 8 of 10 blacks would have been required to change neighborhoods to achieve an even residential distribution with whites (Logan and Stults 2011). In 2010, that number had decreased to approximately 6 of 10. This decline in black-white segregation follows broader national shifts in demographic composition and social attitudes. Demographically, increases in Latino and Asian immigration have diversified U.S. metropolitan areas, leading to greater neighborhood racial and ethnic diversity (Farrell and Lee 2011; Logan and Zhang 2010, 2011). This pattern of Latinos and Asians increasing diversity is seen in research by Logan and Zhang (2010, 2011). In particular, Logan and Zhang identified a temporally stable form of neighborhood

diversity that they termed “global neighborhoods.” These former all-white neighborhoods, pioneered by Latinos and Asians, with blacks entering thereafter, have contributed to reductions in racial segregation. For instance, Logan and Zhang found that in the 20 most multiethnic metropolitan areas, 50 % of the white population lived in these temporally stable, diverse neighborhoods, but only 3 % of whites were found to reside in predominantly white neighborhoods (Logan and Zhang 2011).

Socially, many overt forms of discrimination have diminished, such as blacks encountering severe and often violent opposition to entering into predominantly white neighborhoods (Rothstein 2017). This shift is due in part to a general increase in the value of diversity (Taylor et al. 2008) and a lessening of racial prejudicial attitudes among whites (Schuman 1997). However, covert discrimination remains prevalent and consequential (Roscigno et al. 2009). For instance, in a study of racial discrimination by real estate agents, Turner et al. (2013) observed that agents told blacks about rental units roughly 11 % less often than whites. The disparity was even greater with respect to home purchasing, where agents informed blacks about 17 % fewer homes than whites.

Despite the overall positive impact of demographic and social changes on black-white segregation, temporal declines in the residential segregation of blacks and whites (as measured by the dissimilarity index) varied substantially between metropolitan areas. Segregation levels dropped most precipitously in metropolitan areas with quickly growing populations in the South and West. Conversely, metropolitan areas in the Midwest and the Northeast have tended to possess durably high levels of segregation. For example, 8 of 10 blacks in Detroit would have to move to achieve an even neighborhood distribution with whites, and approximately 7 of 10 blacks in Philadelphia would need to migrate to eliminate their residential segregation from whites (Logan and Stults 2011). Thus, a large share of the black population continues to reside in highly segregated metropolitan areas and encounter the concomitant disadvantages related to segregation.

The Role of Hypersegregation

Numerous scholars who study the association between black-white disparities in outcomes and segregation have frequently used only one or two dimensions, such as evenness via the dissimilarity index (Iceland and Wilkes 2006; South et al. 2011; vonLockette 2010). When scholars have chosen to use one dimension of segregation, the dissimilarity index has proven to be effective because it provides a clear assessment of the segregation of blacks from whites within metropolitan areas. However, steadily declining but relatively high levels of black-white segregation (as measured by the dissimilarity index) could be exacerbated by the presence of other forms of segregation, such as the spatial clustering of black neighborhoods or the location of black neighborhoods in relatively small, concentrated geographic areas. Therefore, it is important to investigate the index of dissimilarity in the context of other measures of segregation because this measure cannot reveal information about the spatial location of blacks within metropolitan landscapes. More intense spatial segregation of blacks from whites is potentially associated with additional mechanisms begetting racial inequality that the index of dissimilarity overlooks. In turn, metropolitan areas that report high values across multiple dimensions of segregation could stifle blacks from achieving a more even neighborhood representation and socioeconomic status with whites.

Massey and Denton (1989, 1993) came to define metropolitan areas where blacks were highly segregated across multiple dimensions as hypersegregated. They warned that considering a limited number of dimensions of segregation was potentially problematic because of the notion that segregation becomes more onerous as it accumulates across dimensions of segregation. The elevated level of segregation across multiple dimensions implies a high degree of spatial isolation that can potentially help explain the social and economic gap between poor blacks and the rest of U.S. society (Massey and Denton 1993; Massey and Tannen 2016). Although the concept of hypersegregation provides theoretical expectations about racial inequality, little is known about whether racial inequality is starker in hypersegregated metropolitan areas than in metropolitan areas that are segregated in terms of the dissimilarity index but are not hypersegregated, and whether those potential differences changed over time. Thus, assessing these questions will provide insight as to whether hypersegregated metropolitan areas have been, and continue to be, particularly deleterious for the socioeconomic outcomes for blacks.

Data and Methods

The following analyses use the U.S. Census and the ACS to measure residential segregation indices and aggregate other summary statistics for 2010-defined U.S. metropolitan areas. We use 1980–2010 estimates from the Neighborhood Change Database (GeoLytics 2013) to resolve comparability issues related to tracts that changed geographic boundaries across time. We obtained the 2012–2016 ACS five-year estimates at the tract level from the National Historical Geographic Information System (Manson et al. 2018). For both the decennial censuses and the ACS, we aggregate metropolitan measures of segregation and socioeconomic inequality for each core-based statistical area as defined at the 2010 decennial census. These units represent our definition of metropolitan areas for all analyses and are based on county agglomerations.¹ Using higher-level aggregates across the span of our data preserves comparability into the most recent observation, even in metropolitan areas where tract boundaries changed in select cases between the 2010 census and 2012–2016 ACS.

We select metropolitan areas into the sample if the overall population held metropolitan status (i.e., population greater than or equal to 50,000) and the black population was greater than or equal to 4,000 across all years of the panel. This decision is based on the finding that ACS-based segregation measures are biased upward where the minority population is small (Napierala and Denton 2017). We impose this sample selection across the panel for consistency because segregation measures are sensitive to small minority population sizes whether they are based on decennial census or ACS data.

We stratify metropolitan areas into two samples based on 1980 population size: one subset for the top 50 in population, and another for the 185 other smaller metropolitan

¹ Prior delineations, such as standard metropolitan statistical areas (MSAs), for 1980 employed New England Counties and Town Areas as the subunits for states in New England.

areas that are eligible for analysis based on our population size criteria.² The former group aims to provide a close approximation to the larger metropolitan areas used for Massey and Denton's (1989) original analysis of hypersegregation, although some differences remain given that we operationalize metropolitan areas with a more recent delineation of these units. The latter group of smaller metropolitan areas will provide insight on levels and trends in racial inequality for the metropolitan areas, which later studies of hypersegregation have included (Massey and Tannen 2015; Wilkes and Iceland 2004). This produces two panels containing five observations over time, with a total sample size of 250 for the largest 50 metropolitan areas and 925 for the smaller metropolitan area sample.

Our segregation measures use tract and metropolitan counts of the black and white populations along with spatial features of neighborhoods, such as area and internal point coordinates when needed. We use counts of the black and white population for measuring segregation patterns because race-specific indicators of socioeconomic status are the only consistent measures across the entire panel of our analysis.

Measuring Socioeconomic Inequalities

We use a set of variables related to the socioeconomic status of black and white populations to generate ratios of black-white inequality for each metropolitan area. These socioeconomic outcome measures include (1) the black-white ratio for the proportion of those aged 25+ with a college degree; (2) the black-white ratio for the proportion of those aged 16+ employed in the civilian labor force; and (3) the black-white ratio for the population-weighted average neighborhood poverty rates, where weights are tract counts for total black population and total white population.

Measuring Hypersegregation

Massey and Denton's framework for hypersegregation draws on five distinct dimensions of segregation: evenness, isolation, concentration, clustering, and centralization. We use the same five measures recommended by Massey and Denton (1988) for operationalizing each of the dimensions.³

Starting with the most commonly employed aspatial dimension, *evenness* describes the extent to which the percentage of a given minority group's members within neighborhoods (i.e., tracts) equals the share of that group within the metropolitan area. Representing complete integration, the dissimilarity index (D) takes a value of 0 when the percentage of black population present in neighborhoods is equal to their percentage within the metropolitan area. A value of 1 for the dissimilarity index signals total segregation, where all blacks would have to change neighborhoods to attain a residential distribution comparable to the black share of the total metropolitan population.

Isolation indicates the likelihood of potential contact between black and white persons across neighborhoods of a metropolitan area. Bell's isolation index (${}_xP_x$) for

² We omit the Hartford-West Hartford-East Hartford, CT, and Cape Coral, FL, metropolitan areas because of invalid data for the socioeconomic measures in these areas.

³ For a detailed description of the five dimensions of segregation and equations of each, see the [online appendix](#).

black-white segregation reaches a score of 1 in the event where blacks have no probability of sharing a neighborhood with whites and a value of 0 when the probability of sharing a neighborhood with whites is the same as that of sharing a neighborhood with other blacks (Bell 1954).

The remaining dimensions are spatial qualities of residential segregation. *Clustering* measures the extent to which black and white neighborhoods form separate contiguous regions of the metropolitan area and is at its maximum when black neighborhoods exist only among a single, unified space. We use White's (1983) spatial proximity (*SP*) index to measure clustering. This clustering measure does not have the same numeric range as the preceding measures but instead tends to vary from 1 to 2 depending on the relative contiguity of minority neighborhoods. Following the strategy of earlier studies of hypersegregation (see Massey and Denton 1988; Wilkes and Iceland 2004), we subtract 1 from this measure to obtain an index that mostly varies from 0 to 1. Higher values of *SP* indicate greater clustering of minority populations.

Concentration measures the overall difference in the amount of area in which the minority group resides in comparison to the majority group. The *relative concentration index* (RCO) measures concentration and takes on larger values when all members of the minority group reside in a small share of the overall metropolitan area's areal space relative to the majority group's share. The RCO measure tends to vary from -1 to 1 . A score of 1.0 indicates maximum concentration of the minority population relative to the majority, whereas -1.0 implies the majority population is maximally concentrated.

The *absolute centralization index* (ACE) measures how spatially centralized blacks are relative to the distribution of land around the metropolitan center (Massey and Denton 1988). Although both central business districts and the metropolitan area's center of population have been used for determining what neighborhoods centralize around, we follow Wilkes and Iceland (2004) in using the latter approach to compute each metropolitan area's ACE index. The population centroid represents a metropolitan area's geographic center in terms of its population distribution and indicates the degree to which blacks reside in a location near the relative middle of a metropolitan area (vs. the suburban and rural periphery). We measure the center of population at each observation across time to allow this location to change in step with changes in metropolitan population distributions. ACE has a range of -1 and 1 but varies mostly between 0 and 1 in practice. Values of ACE close to 0 indicate that blacks are uniformly distributed across the space of the metropolitan area, and values near 1 signify that blacks are more likely to live close to the center of metropolitan areas.

As mentioned earlier, we combine these five measures of segregation—evenness, isolation, clustering, concentration, and centralization—to measure Massey and Denton's concept of hypersegregation. Following the operationalization strategy of previous research using hypersegregation, we apply a threshold method (see Massey and Denton 1989; Massey and Tannen 2015; Wilkes and Iceland 2004), where the presence of hypersegregation is based on a metropolitan area having high values of segregation (i.e., greater than or equal to $.60$) on at least four of five dimensions. This conventional strategy assumes that each additional dimension of segregation is additive in its importance for overall hypersegregation. Also, our focal measure of segregation types disaggregates nonhypersegregated metropolitan areas—areas that do not have high values on at least four of five dimensions—into two subsets: high-segregation and moderate-/low-segregation metropolitan areas.

We define high-segregation metropolitan areas as having dissimilarity scores at or above .60, and metropolitan areas that possess dissimilarity scores less than .60 are considered moderate-/low-segregation. We focus on dissimilarity for defining high segregation and moderate/low segregation because it is a commonly used and easily understandable measure of metropolitan segregation. Our measure of the three focal segregation types is time-varying, allowing us to assess changes in segregation for metropolitan areas over time.

Analytic Framework

We present descriptive statistics of our time-varying measure of segregation types to understand how the number of metropolitan areas with hypersegregation, high segregation, and moderate/low segregation changed over time. For the main analyses, we use two-way analysis of variance (ANOVA) and ordinary least squares (OLS) to assess black-white ratios of socioeconomic status measured across time. We set hypersegregated metropolitan areas as the reference group for our segregation type covariate in order to understand whether the two nonhypersegregation types (i.e., high segregation and moderate/low segregation) exhibit significantly less racial inequality in socioeconomic status.

The first model for a given sample and outcome in our regression analysis includes the two dummy variables denoting segregation types other than hypersegregation, as well as a year covariate capturing average temporal change over the panel.⁴ This specification shows the average differences among hypersegregation, high segregation, and moderate/low segregation, holding temporal change constant. In the second model of each sample and outcome, we interact the segregation types with the year covariate centered on 1980 to model group-specific trends from 1980 to 2012–2016. This specification indicates whether the differences between segregation types in terms of black-white inequality grew or diminished over time.

Although we present our models without controls included, all findings are robust to the inclusion of controls for demographic characteristics of metropolitan areas, including logged population size, the black share of the population, the nonwhite and nonblack share of the population, the Hispanic share of the population, and the foreign-born share of the population.⁵ Additionally, modeling all metropolitan areas as a single panel produces similar findings regarding differences in black-white socioeconomic inequality between hypersegregation and the other segregation types.⁶ Our intent is not to derive causal estimates for the effect of hypersegregation but instead to describe levels and trends in black-white socioeconomic inequality between segregation types. Last, all models employ robust standard errors clustered by metropolitan area to account for heteroskedasticity and adjacency of observations within the panel.

⁴ We set the year covariate to 2016 for the 2012–2016 ACS observations. We also tested 2012 as the value for this time point and found no substantive difference in results.

⁵ See the [online appendix](#) for supplemental models including these demographic characteristics.

⁶ See the [online appendix](#) for supplemental models of the all metropolitan area panel with and without metropolitan demographic characteristics.

Results

Hypersegregated Metropolitan Areas

Table 1 displays the number of metropolitan areas experiencing hypersegregation, high segregation, and moderate/low segregation at each time point of our data. The top panel indicates frequencies for each type among the top 50 sample, and the bottom panel highlights frequencies for metropolitan areas with smaller total populations. We identify 21 metropolitan areas that were hypersegregated in 1980 among the top 50 metropolitan areas. At this point in time, there were also 22 highly segregated metropolitan areas that were not hypersegregated. The remaining 7 metropolitan areas in the moderate-/low-segregation type that were not hypersegregated had dissimilarity levels below .60. By 2000, declining levels of segregation had changed the composition of the group sizes considerably: 15 metropolitan areas remained hypersegregated, followed by 13 metropolitan areas with high segregation and 22 metropolitan areas with moderate/low segregation. At the final time point between 2012 and 2016, 9 metropolitan areas were hypersegregated, 11 had high segregation, and 30 were classified as moderate/low segregation.

Of the 185 smaller metropolitan areas depicted in the bottom panel of Table 1, we observe 11 areas that were hypersegregated in 1980. Among the remaining nonhypersegregated metropolitan areas, 83 were classified as highly segregated, and 91 had moderate/low segregation. By 2000, the hypersegregation group had declined substantially to a total of 4 metropolitan areas. Similarly, the count of highly segregated metropolitan areas declined precipitously from 83 in 1980 to 35 by 2000. These trends were reflected in the total of moderate-/low-segregation metropolitan areas increasing to 146 by 2000. In the most recent 2012–2016 observation, only 2 hypersegregated metropolitan areas remained among the smaller metropolitan area sample, followed by 21 high-segregation areas and 162 moderate-/low-segregation areas.

Based on Table 1, we conclude that hypersegregation remains much more common in larger metropolitan areas. The declines in segregation noted in past literature (Logan and Stults 2011) are reflected in the transitions of metropolitan areas from hypersegregation to high segregation and from high segregation to moderate/low segregation. Further, the declining prevalence of hypersegregation appears to have

Table 1 Segregation type frequencies by year and sample: 1980 to 2012–2016

Segregation Type	1980	1990	2000	2010	2012–2016
Sample: Top 50 Metros					
Hypersegregation	21	16	15	9	9
High segregation	22	22	13	9	11
Moderate/low segregation	7	12	22	32	30
Sample: Smaller Metros					
Hypersegregation	11	5	4	3	2
High segregation	83	62	35	16	21
Moderate/low segregation	91	118	146	166	162

been particularly pronounced in smaller metropolitan areas. However, by the 2012–2016 observation, we still observe, in total, 11 hypersegregated metropolitan areas between the two samples.⁷

Hypersegregation and Metropolitan Differences in Black-White Socioeconomic Inequality

In the next stage of our analysis, we investigate whether hypersegregation is associated with greater disparities in socioeconomic status between blacks and whites from 1980 to the 2012–2016 observation than high segregation or moderate/low segregation as captured by the dissimilarity index. As an initial analysis, Table 2 shows average black-white socioeconomic status ratios for the 1980 and 2012–2016 observations of each outcome according to segregation type and sample.

For black-white disparities in educational attainment, a significant contrast between hypersegregation and moderate/low segregation appears across time among larger metropolitan areas, with no significant differences observed between hypersegregation and high segregation at either time point across samples. Employment disparity contrasts for 1980 are partially mixed between samples but suggest that larger metropolitan areas with hypersegregation had greater inequality in 1980 compared with highly segregated counterparts. By 2012–2016, the employment disparity contrast between hypersegregation and high segregation does not reach significance in either sample, although the contrast between hypersegregation and moderate/low segregation is significant among larger metropolitan areas. Finally, the average neighborhood poverty rate estimates reveal that hypersegregation is associated with significantly greater inequality than the other two segregation types in 1980, but only the contrasts between hypersegregation and moderate/low segregation remain significant by 2012–2016.

Educational Attainment

We now turn to our focal set of OLS regression models found in Tables 3, 4, and 5 to assess black-white differences in socioeconomic inequality levels and trends between segregation types. In each of the following tables, Models 1 and 2 present results based on the sample of the 50 largest metropolitan areas, and Models 3 and 4 show findings from the 185 smaller metropolitan areas.

Table 3 provides regression coefficients from models of black-white ratios for the proportion of persons aged 25+ with a college degree at each time point. The significant intercept for Model 1 indicates that hypersegregated metropolitan areas' ratio for black-white inequality in educational attainment was 0.436 when change over time is held constant. This means that the proportion of blacks with a college education by age 25 has been only about 44 % of the level for whites in hypersegregated contexts. The positive but nonsignificant coefficient for high segregation ($\beta_{\text{high}} = 0.030$) in Model 1 suggests that among the largest metropolitan areas, there was not a consistent difference

⁷ The [online appendix](#) contains additional descriptive tables, including tables for all metropolitan areas by study inclusion and year-specific segregation types; summary statistics describing focal measures of the study's analyses by sample; and average segregation levels by segregation type, year, and sample.

Table 2 Two-way ANOVAs of metropolitan black-white socioeconomic status ratios by segregation type and year: 1980 and 2012–2016

	Proportion Aged 25+ With a College Degree			Proportion Aged 16+ Employed			Average Neighborhood Poverty Rate		
	1980	2012–2016	Δ	1980	2012–2016	Δ	1980	2012–2016	Δ
Sample: Top 50 Metros									
Moderate/low segregation	0.551**	0.649**	0.099*	0.825	0.969*	0.144***	1.770***	1.616***	-0.155
High segregation	0.460	0.512	0.052	0.869**	0.928	0.059†	2.534***	2.263	-0.272
Hypersegregation	0.410	0.514	0.103*	0.792	0.896	0.104**	3.151	2.409	-0.742***
Sample: Smaller Metros									
Moderate/low segregation	0.488	0.589	0.101***	0.850*	0.955	0.105***	1.604***	1.558†	-0.046
High segregation	0.418	0.513	0.095*	0.796	0.857	0.061	2.386**	2.053	-0.333**
Hypersegregation	0.434	0.586	0.152	0.747	0.903	0.156	2.744	2.068	-0.677*

Notes: Reference group for within-year contrasts is hypersegregation; between-year contrasts are by segregation type.

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 3 Linear regressions of metropolitan black-white ratio for proportion aged 25+ with a college degree by metropolitan segregation type and year: 1980 to 2012–2016

	Top 50 Metros		Smaller Metros	
	Model 1	Model 2	Model 3	Model 4
High Segregation	0.030 (0.021)	0.054 [†] (0.028)	-0.051 (0.032)	-0.003 (0.034)
Moderate/Low Segregation	0.124*** (0.028)	0.115** (0.037)	-0.005 (0.032)	0.037 (0.034)
Year	0.002*** (0.000)	0.003*** (0.001)	0.003*** (0.000)	0.007* (0.003)
High Segregation × Year		-0.002 (0.001)		-0.004 (0.003)
Moderate/Low Segregation × Year		0.000 (0.001)		-0.004 (0.003)
Constant	0.436*** (0.014)	0.428*** (0.016)	0.479*** (0.031)	0.436*** (0.029)
Number of Observations	250	250	925	925
<i>N</i>	50	50	185	185
<i>T</i>	5	5	5	5
<i>AIC</i>	-438.03	-436.38	-743.81	-742.16

Notes: Year covariate is centered at 1980.

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

in educational disparity between hypersegregated and highly segregated metropolitan areas when the average temporal trend across the panel is held constant. In contrast, the positive coefficient for moderate-/low-segregation types ($\beta_{\text{moderate/low}} = 0.124, p < .001$) indicates that when change over time is held constant, moderate-/low-segregation areas were substantially closer to equality in educational attainment between blacks and whites (i.e., 1.0) than hypersegregated metropolitan areas. Supplemental analysis shows that moderate-/low-segregation metropolitan areas also had significantly less inequality than their high-segregation counterparts (contrast = 0.094, $p < .001$). The positive and significant coefficient for year ($\beta_{\text{year}} = 0.002, p < .001$) denotes that metropolitan areas trended upward over time toward greater parity in educational attainment between blacks and whites.

Model 2 in Table 3 specifies temporal trends between segregation types via an interaction of the segregation types with the year covariate for average change over time. The main effect for high segregation provides suggestive evidence that racial disparities in educational attainment were greater among hypersegregated areas relative to high-segregation areas in 1980 ($\beta_{\text{high}} = 0.054, p < .10$). Further, hypersegregated metropolitan areas had significantly greater inequality in educational attainment in 1980 compared with moderate-/low-segregated areas ($\beta_{\text{moderate/low}} = 0.115, p < .01$). The year covariate for hypersegregated metropolitan areas suggests improved racial equality between blacks and whites over time ($\beta_{\text{year}} = 0.003, p < .001$), and the

Table 4 Linear regressions of metropolitan black-white ratio for proportion aged 16+ employed by metropolitan segregation type and year: 1980 to 2012–2016

	Top 50 Metros		Smaller Metros	
	Model 1	Model 2	Model 3	Model 4
High Segregation	0.051** (0.018)	0.069* (0.026)	0.026 (0.025)	0.062† (0.035)
Moderate/Low Segregation	0.066** (0.020)	0.031 (0.044)	0.078*** (0.022)	0.088** (0.030)
Year	0.002*** (0.001)	0.002** (0.001)	0.002*** (0.000)	0.004* (0.001)
High Segregation × Year		−0.001 (0.001)		−0.003† (0.002)
Moderate/Low Segregation × Year		0.001 (0.001)		−0.001 (0.002)
Constant	0.796*** (0.014)	0.796*** (0.016)	0.763*** (0.020)	0.745*** (0.027)
Number of Observations	250	250	925	925
<i>N</i>	50	50	185	185
<i>T</i>	5	5	5	5
<i>AIC</i>	−602.09	−606.77	−1,172.82	−1,174.89

Notes: The year covariate is centered on 1980.

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

interactions of the high-segregation and moderate-/low-segregation groups with the year covariate do not indicate any significant differences in temporal trends from hypersegregation ($\beta_{\text{high} \times \text{year}} = -0.002$; $\beta_{\text{moderate/low} \times \text{year}} = 0.000$).

Among smaller metropolitan areas, the significant intercept in Model 3 (Table 3) demonstrates that net of average trends over time, the black-white ratio for college graduation rates was 0.479 in the presence of hypersegregation. This implies that the proportion of blacks with a college education by age 25 has been about 48 % of the proportion of whites with a college education in hypersegregated metropolitan areas. The coefficient for high segregation ($\beta_{\text{high}} = -0.051$) fails to reach statistical significance, indicating these areas were comparable to hypersegregated metropolitan areas. Similarly, the nonsignificant coefficient for moderate-/low-segregation ($\beta_{\text{moderate/low}} = -0.005$) areas denotes no consistent difference in the black-white ratio for educational attainment between hypersegregation and moderate/low segregation. However, contrasting high segregation and moderate/low segregation shows the expected worsening of black-white educational inequality in the presence of greater segregation (contrast = 0.046, $p < .01$). The positive and significant coefficient for year ($\beta_{\text{year}} = 0.003$, $p < .001$) signifies that the black-white ratio for educational attainment trended upward toward greater equality across smaller metropolitan areas.

Model 4 of Table 3 indicates that 1980 levels of black-white inequality in educational attainment among hypersegregated metropolitan areas were comparable to

Table 5 Linear regressions of metropolitan black-white ratio for average neighborhood poverty rate by metropolitan segregation type and year: 1980 to 2012–2016

	Top 50 Metros		Smaller Metros	
	Model 1	Model 2	Model 3	Model 4
High Segregation	-0.488*** (0.132)	-0.693*** (0.182)	-0.269* (0.134)	-0.409** (0.147)
Moderate/Low Segregation	-1.092*** (0.147)	-1.385*** (0.223)	-0.999*** (0.133)	-1.211*** (0.131)
Year	-0.012*** (0.003)	-0.022*** (0.004)	-0.004*** (0.001)	-0.019*** (0.005)
High Segregation × Year		0.014* (0.006)		0.012* (0.006)
Moderate/Low Segregation × Year		0.016* (0.006)		0.017*** (0.005)
Constant	3.131*** (0.131)	3.282*** (0.156)	2.703*** (0.125)	2.881*** (0.125)
Number of Observations	250	250	925	925
<i>N</i>	50	50	185	185
<i>T</i>	5	5	5	5
<i>AIC</i>	333.60	329.56	1,061.31	1,057.06

Notes: The year covariate is centered on 1980.

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

metropolitan areas with high segregation ($\beta_{\text{high}} = -0.003$) and moderate/low segregation ($\beta_{\text{moderate/low}} = 0.037$). Model 4 does predict a significant positive trend over time ($\beta_{\text{year}} = 0.007$, $p < .05$) among hypersegregated metropolitan areas, suggesting greater equality in educational attainment between blacks and whites in these areas during later observations. The interaction terms in Model 4 for smaller metropolitan areas indicate no significant differences in high-segregation or moderate-/low-segregation areas compared with change over time in black-white educational inequality among hypersegregated areas ($\beta_{\text{high} \times \text{year}} = -0.004$; $\beta_{\text{moderate/low} \times \text{year}} = -0.004$).

Employment

Table 4 displays coefficients from regression models of black-white ratios for the proportion of persons aged 16 + employed in the civilian labor force at each time point. The significant intercept for Model 1 denotes that the black-white ratio for employment rates for hypersegregated metropolitan areas was 0.796 when change over time is held constant. Accordingly, black employment rates have been about 80 % of white employment rates in the presence of hypersegregation. Model 1 has positive and significant coefficients for metropolitan areas with high segregation ($\beta_{\text{high}} = 0.051$, $p < .01$) and for metropolitan areas with moderate/low segregation ($\beta_{\text{moderate/low}} = 0.066$, $p < .01$). These coefficients highlight that the racial disparity in employment levels was

measurably worse in hypersegregated areas relative to high segregation and moderate/low segregation, net of the trend over time. The contrast between high segregation and moderate/low segregation is in the expected positive direction but does not reach statistical significance (contrast = 0.015). The average trend indicates lessening black-white employment disparities over time ($\beta_{\text{year}} = 0.002, p < .001$).

Model 2 for the top 50 metropolitan areas adds an interactive time specification for black-white disparities in employment across the segregation types. The main effect for high segregation and moderate/low segregation shows that 1980 levels of black-white employment disparity among hypersegregated metropolitan areas were significantly greater than those among metropolitan areas with high segregation ($\beta_{\text{high}} = 0.069, p < .05$) but otherwise were comparable to those with moderate/low segregation ($\beta_{\text{moderate/low}} = 0.031$). The year covariate denotes an increasing level of black-white employment equality in hypersegregated metropolitan areas over time ($\beta_{\text{year}} = 0.002, p < .01$). Additionally, the interactions of the high-segregation and moderate-/low-segregation groups with the year covariate do not show significant differences from the temporal trend associated with hypersegregation ($\beta_{\text{high} \times \text{year}} = -0.001$; $\beta_{\text{moderate/low} \times \text{year}} = 0.001$).

The significant intercept for Model 3 indicates that the predicted black-white ratio for employment rates in hypersegregated metropolitan areas was 0.763, with change over time held constant. This means that black employment rates in smaller, hypersegregated metropolitan areas have been about 76 % of white employment rates in these contexts. Model 3 also shows a nonsignificant difference between high segregation and hypersegregation ($\beta_{\text{high}} = 0.026$), suggesting that smaller metropolitan areas with high dissimilarity have had comparable black-white inequality in employment rates to those with hypersegregation. However, the significant difference ascribed to metropolitan areas with moderate/low segregation ($\beta_{\text{moderate/low}} = 0.078, p < .001$) indicates that metropolitan areas with hypersegregation were worse in terms of black-white employment disparities relative to those with moderate/low segregation. Likewise, the difference between high-segregation and moderate-/low-segregation areas shows greater racial inequality in employment in the former (contrast = 0.053, $p < .001$). The average trend over time for smaller metropolitan areas was positive and significant ($\beta_{\text{year}} = 0.002, p < .001$) and is consistent with lessening racial inequality in employment outcomes over time.

The Model 4 regression for smaller metropolitan areas allows employment inequality trends to vary by segregation type. The main effect for high segregation provides suggestive evidence that hypersegregation related to a greater black-white disparity in employment for the 1980 observation relative to high segregation ($\beta_{\text{high}} = 0.062, p < .10$). Similarly, hypersegregated metropolitan areas were associated with larger black-white inequality in employment in 1980 compared with moderate-/low-segregated areas ($\beta_{\text{moderate/low}} = 0.088, p < .01$). The average trend over time in black-white employment disparities for hypersegregated metropolitan areas indicates increasing equality between black and white employment levels ($\beta_{\text{year}} = 0.004, p < .05$). The Model 4 interaction terms suggest differential trends among highly segregated metropolitan areas compared with hypersegregated areas ($\beta_{\text{high} \times \text{year}} = -0.003, p < .10$), although the trend among moderate-/low-segregation areas was comparable to hypersegregated areas ($\beta_{\text{moderate/low} \times \text{year}} = -0.001$). The implication of the differences in trends among highly segregated areas is that they have become more like

hypersegregated areas over time in their association with employment inequality; thus, by the 2012–2016 observation, levels of inequality in hypersegregated and highly segregated metropolitan areas are comparable.

Neighborhood Poverty Rates

Table 5 provides coefficients from regression models of black-white ratios for average neighborhood poverty rates at each time point. For the top 50 metropolitan areas, the significant intercept of Model 1 indicates that net of average trends over time, the black-white ratio for neighborhood poverty rates in hypersegregated metropolitan areas was 3.131. This means that the average level of neighborhood poverty experienced by blacks has been more than three times that of the average level of neighborhood poverty experienced by whites. The negative and significant coefficients for both high segregation ($\beta_{\text{high}} = -0.488, p < .001$) and for moderate/low segregation ($\beta_{\text{moderate/low}} = -1.092, p < .001$) highlight that these areas had less black-white inequality in neighborhood poverty than hypersegregated metropolitan areas when the time trend is held constant. The contrast between high segregation and moderate/low segregation is also significant (contrast = $-0.604, p < .001$). The average trend over time was negative and significant ($\beta_{\text{year}} = -0.012, p < .001$), signifying that the top 50 metropolitan areas generally showed temporal declines in black-white neighborhood poverty inequality.

Model 2 interacts the segregation types with the average trend over time to test whether the contrasts between hypersegregated metropolitan areas and the two other types for high-segregation and moderate-/low-segregation areas changed over time. The negative and significant main effects for high-segregation and moderate-/low-segregation areas ($\beta_{\text{high}} = -0.693, p < .001$; $\beta_{\text{moderate/low}} = -1.385, p < .001$) highlight that these areas had lower levels of inequality in black-white neighborhood poverty in 1980 compared with hypersegregated areas. The average trend for hypersegregated metropolitan areas indicates temporal declines ($\beta_{\text{year}} = -0.022, p < .001$) in black-white inequality in neighborhood poverty exposure. Additionally, both high-segregation and moderate-/low-segregation areas experienced relatively shallower temporal declines in black-white neighborhood poverty inequality relative to hypersegregated areas ($\beta_{\text{high} \times \text{year}} = 0.014, p < .05$; $\beta_{\text{moderate/low} \times \text{year}} = 0.016, p < .05$).

The Model 2 coefficients provide evidence that the large differences in neighborhood poverty exposure between hypersegregated metropolitan areas and the other two types have partly diminished over time. We further explore this in Fig. 1, which shows marginal predicted values from Model 2 of Table 4 for the top 50 metropolitan areas at 1980, 2000, and 2012–2016 for the average neighborhood poverty rate between blacks and whites. Figure 1 highlights that black-white differences in average neighborhood poverty rates in hypersegregated metropolitan areas are significantly greater than both high-segregation and moderate-/low-segregation areas in 1980 and 2000. Pairwise contrasts between segregation types indicate that the significant difference between hypersegregated metropolitan areas and highly segregated areas observed for 1980 and 2000 diminished to nonsignificance by the 2012–2016 observation. However, both hypersegregated and highly segregated metropolitan areas remain significantly different in their

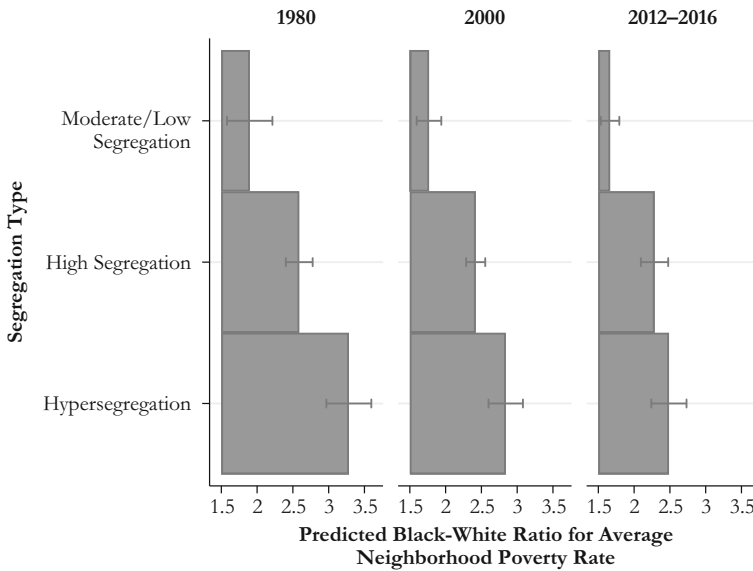


Fig. 1 Predicted black-white ratio for average neighborhood poverty rate among top 50 metropolitan areas by metropolitan segregation type and period

level of black-white neighborhood poverty compared with moderate-/low-segregation areas across the entire span of the panel.

The estimated regression coefficients from Model 3 for smaller metropolitan areas are substantively consistent with Model 1 for the top 50 metropolitan areas. As denoted by Model 3's significant intercept, smaller hypersegregated metropolitan areas have a black-white ratio for average neighborhood poverty rates that equals 2.703 when the time trend is held constant. This signifies that black neighborhood poverty rates have been more than 2.5 times greater than white neighborhood poverty rates in hypersegregated metropolitan areas. The negative and significant differences for high segregation ($\beta_{\text{high}} = -0.269$, $p < .05$) and moderate/low segregation ($\beta_{\text{moderate/low}} = -0.999$, $p < .001$) demonstrate that these areas tend to have lower levels of black-white inequality in exposure to neighborhood poverty relative to hypersegregated areas, net of average change over time. Supplemental analysis indicates that the contrast between high segregation and moderate/low segregation is also significant (contrast = 0.730, $p < .001$). Moreover, the average trend over the panel was of declining black-white inequality in neighborhood poverty ($\beta_{\text{year}} = -0.004$, $p < .001$).

Model 4 investigates whether the contrasts for black-white neighborhood poverty inequality between hypersegregation and the other two segregation types changed over time in smaller metropolitan areas. The negative and significant main effects coefficients for high segregation ($\beta_{\text{high}} = -0.409$, $p < .01$) and moderate/low segregation ($\beta_{\text{moderate/low}} = -1.211$, $p < .001$) indicate that 1980 levels of inequality were greater in hypersegregated areas. Model 4 also shows a significant temporal decline in neighborhood poverty inequality among hypersegregated metropolitan areas ($\beta_{\text{year}} = -0.019$, $p < .001$). The significant interactions indicate that high-segregation and moderate-/low-segregation areas experienced more modest temporal declines in black-white

neighborhood poverty exposure compared with hypersegregated areas ($\beta_{\text{high} \times \text{year}} = 0.012, p < .05$; $\beta_{\text{moderate/low} \times \text{year}} = 0.017, p < .001$).

The Model 4 coefficients signify that the contrast between hypersegregation and the other segregation types partially diminished after 1980. Figure 2 uses marginal predictions from Model 4 of Table 4 for smaller metropolitan areas to assess the association for the black-white average neighborhood poverty rate between hypersegregated metropolitan areas and both high-segregation and moderate-/low-segregation metropolitan areas for 1980, 2000, and 2012–2016. These predictions illustrate that hypersegregated and highly segregated metropolitan areas were significantly different in 1980 but converged by 2000, and the differences between these groups remained nonsignificant for 2012–2016. Nevertheless, both hypersegregated and highly segregated metropolitan areas possess significantly higher levels of inequality in black-white neighborhood poverty rates than moderate-/low-segregation areas across each time point.

Discussion

Much of the literature on racial stratification and segregation has focused on one dimension of segregation, such as the dissimilarity index (Iceland and Wilkes 2006; vonLockette 2010). However, exploring a limited number of dimensions of segregation does not capture other important features of segregation theoretically associated with the spatial disadvantage encountered by a multitude of blacks relative to whites. In response to this, we use more than four decades of data from the U.S. Census and the ACS to describe whether socioeconomic disparities

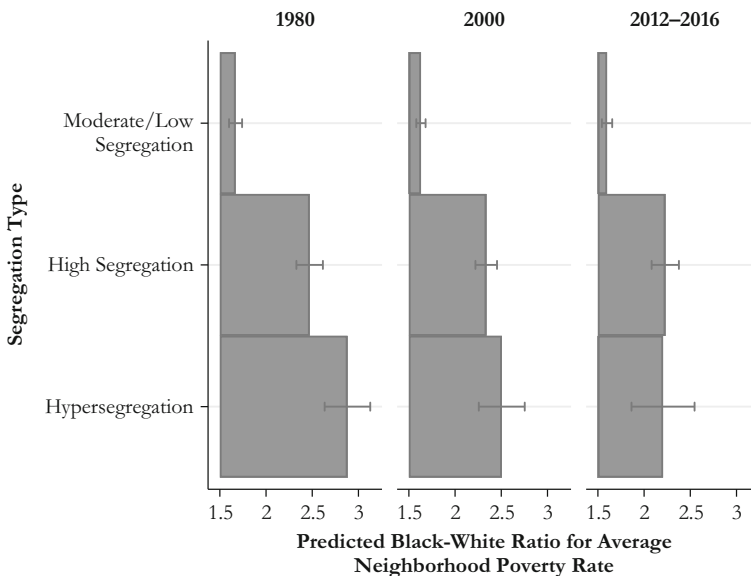


Fig. 2 Predicted black-white ratio for average neighborhood poverty rate among smaller metropolitan areas by metropolitan segregation type and period

between blacks and whites are more prominent in hypersegregated metropolitan areas relative to nonhypersegregated metropolitan areas that experience various levels of dissimilarity, while also investigating how these patterns may have transformed over time.

Our analyses find lasting black-white socioeconomic inequalities are associated with racial residential segregation. First, our results support the conclusion that segregation is associated with increased educational inequalities between blacks and whites but that hypersegregated metropolitan areas have not been distinctly related to this outcome. Specifically, larger hypersegregated metropolitan areas possess similar levels of black-white inequality in educational attainment as highly segregated metropolitan areas. For smaller metropolitan areas, hypersegregated metropolitan areas were indistinguishable from the other metropolitan segregation types in their association with black-white differences in educational attainment, but high-segregation areas nevertheless had measurably greater inequality than moderate-/low-segregation areas. On the whole, these patterns in black-white disparities in educational attainment might be partially explained by parental socioeconomic resources because when segregation stratifies parental socioeconomic attainment, it concomitantly disadvantages children's educational attainment (Sharkey 2013).

Second, as it relates to black-white employment disparities in larger metropolitan areas, hypersegregation is generally associated with wider gaps between these groups. This observation holds when larger hypersegregated metropolitan areas are compared with other larger highly segregated areas. Among smaller metropolitan areas, the distinction appears to be mostly between areas with moderate/low levels of segregation and the other two metropolitan types: high segregation and hypersegregation. Some evidence in these smaller metropolitan areas suggests that highly segregated areas experienced smaller improvements in racial employment disparities over time than those areas that were hypersegregated. Overall, these findings reflect the possibility that employment opportunities in segregated metropolitan areas have been located where many blacks do not reside and that blacks may have limited exposure to these opportunities because their daily experiences are circumscribed to lower-opportunity areas.

Third, our analysis reveals how segregation-related differences in black-white neighborhood poverty exposure remain considerable. More specifically, hypersegregation, whether present in larger or smaller metropolitan areas, was associated in 1980 with substantially greater black-white inequality in neighborhood poverty exposure than metropolitan areas that possessed high or moderate/low levels of segregation as defined by the dissimilarity index. We do observe, however, as general patterns of segregation declined over time, that the difference between hypersegregated and highly segregated areas also diminished. The increasing similarity of average black-white neighborhood poverty levels among hypersegregated and highly segregated metropolitan areas could be the result of increasing rates of suburbanization among blacks (Allard 2017; Sharkey 2014). Specifically, the migration of blacks from central cities to the suburbs may have translated into declining segregation within metropolitan areas and a shift, for some metropolitan areas, from being hypersegregated to highly segregated. In fact, many of the suburbs that minorities migrate to are almost as segregated,

impoverished, and disadvantaged as many central cities (Allard 2017; Kneebone and Holmes 2015). Thus, formerly hypersegregated metropolitan areas may claim relatively more disadvantaged periphery suburban neighborhoods, and attending to segregated suburban neighborhoods will be increasingly important for future research to understand the changing nature of segregation and its relationship with black-white inequality.

Despite this decline, in relation to moderate- to low-segregated areas, hypersegregated and highly segregated metropolitan areas are distinctively associated with black exposure to the pernicious effects of neighborhood poverty, such as contact with toxic pollutants (Crowder and Downey 2010), heightened crime (Peterson and Krivo 2010), and an increased threat of incarceration (Clear 2007). This finding aligns with the notion that segregation is a central determinant of neighborhood poverty exposure for blacks (Massey and Denton 1993; Quillian 2012). Hence, in spite of the decreasing influence of hypersegregation and the fact that we are unable to empirically explicate the mechanisms by which segregation produces negative outcomes for blacks, segregation itself appears to remain an important feature in the lives of black individuals, their families, and their overall life chances.

To improve the life chances of blacks, federal policy efforts might consider recognizing how segregation works to disadvantage the socioeconomic status of blacks. Case in point, policy-makers might continue to explore housing mobility programs that provide disadvantaged families—especially black households, who appear to be acutely and negatively impacted by segregation—housing vouchers to migrate to more salubrious environments. Although this policy recommendation is not a panacea for the entrenched structural disparities that many black households experience because of their location in segregated environments, continued effort in this direction might provide lasting improvements for the outcomes of America's disadvantaged (Chetty et al. 2016).

Our results also motivate several directions for the further study of segregation. Future research should endeavor to explicate the micro-level processes through which these inequalities at the metropolitan level operate. Insight into these micro-level pathways would inform researchers about how the disparities uncovered here form and reproduce over time. Also, given our desire to thoroughly investigate hypersegregation as it relates to blacks and whites, we have not included Latinos in these analyses. Future research might find our approach fruitful to the study of socioeconomic inequalities and different forms of segregation among other racial and ethnic minority groups. Given the number of pressing questions concerning metropolitan segregation and racial stratification, we suggest that continued attention be placed on the concept of segregation and how it orders racial differences in socioeconomic outcomes.

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