Spatial Segmentation and the Black Middle Class[1]

Patrick Sharkey
New York University

Ethnographic studies of the black middle class focus attention on the ways in which residential environments condition the experiences of different segments of the black class structure. This study places these arguments in a larger demographic context by providing a national analysis of neighborhood inequality and spatial inequality of different racial and ethnic groups in urban America. The findings show that there has been no change over time in the degree to which majority-black neighborhoods are surrounded by spatial disadvantage. Predominantly black neighborhoods, regardless of socioeconomic composition, continue to be spatially linked with areas of severe disadvantage. However, there has been substantial change in the degree to which middle- and upper-income African-American households have separated themselves from highly disadvantaged neighborhoods. These changes are driven primarily by the growing segment of middle- and upper-income African-Americans living in neighborhoods in which they are not the majority group, both in central cities and in suburbs.

Quantitative researchers studying neighborhoods have come to rely heavily on the census tract to describe individuals' neighborhood environments, to identify the effect of neighborhood disadvantage on individual outcomes, and to evaluate policies to deconcentrate poverty (e.g., Jargowsky 1997; Quillian 1999; Kling, Liebman, and Katz 2007; Sharkey

[1] Direct correspondence to Patrick Sharkey, Department of Sociology, New York University, 295 Lafayette Street, Room 4102, New York, New York 10012. E-mail: patrick.sharkey@nyu.edu

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2008*a*). Although this research has been important in describing and analyzing neighborhood inequality, by focusing attention on individual census tracts this literature presents an incomplete picture of neighborhoods as "islands" that are isolated from each other and from the broader residential landscape surrounding them (Sampson, Morenoff, and Earls 1999; Sampson, Morenoff, and Gannon-Rowley 2002; Morenoff 2003; Mears and Bhati 2006; Crowder and South 2008, 2011).[2] This perspective is at odds with prominent arguments on the relationships between urban poverty and racial/ethnic inequality, which focus on the degree of spatial connectedness or separation between different segments of urban populations typically characterized by race/ethnicity/immigrant status and by economic status.

Most notably, the "neighborhoods as islands" perspective does not align with two prominent arguments about the spatial segmentation of the African-American middle class, both of which focus on the intersection of race, class, and space. Mary Pattillo's research, conducted in middle-class neighborhoods in Chicago, argues that middle-class status is particularly tenuous for African-Americans in part because of spatial proximity to the violence, social problems, and poorly functioning institutions that characterize high-poverty black neighborhoods in Chicago and many other cities across the country (Pattillo 1999, 2000, 2003, 2005). Karyn Lacy's research in suburban Washington, D.C., highlights what she refers to as a "new black middle class," a subset of middle- and upper-income African-Americans who live within communities that are spatially and socially separated from the problems and disadvantages that are prevalent within high-poverty urban communities (Lacy 2007). In analyzing the different sets of opportunities and challenges faced by this segment of the black population, Lacy's research provides a window into the lives and communities of a segment of the black middle class that is very different from that studied by Pattillo in Chicago.

Both programs of research illuminate how the neighborhood environments surrounding middle-class African-American families may condition the risks, opportunities, behaviors, and activities of parents and children. Yet both arguments are based on research projects conducted in two of the most unique settings in the nation. Chicago, the site for Pattillo's research, is among the most segregated cities in the country and contains some of the nation's most disadvantaged communities. Suburban Washington, D.C., where Lacy's research is conducted, is one of the only largely suburban

[2] The more general issue of how to capture and measure salient aspects of individuals' "neighborhoods" in quantitative research is closely related and is considered in an extensive literature (e.g., see Grannis 1998; Hipp 2007; Lee et al. 2008).

areas in the nation that contains numerous towns and small cities with predominantly black, middle-class neighborhoods.

These two research settings provide leverage for Pattillo and Lacy to analyze the unique circumstances of different segments of the nonpoor African-American population. But the uniqueness of the two settings also leads to several unresolved questions that are central to understanding the role of space in conditioning the experiences of the black middle class. For instance: What proportion of relatively advantaged, predominantly African-American neighborhoods are bordered by highly disadvantaged neighborhoods, and what proportion are isolated from urban disadvantage? Is spatial disadvantage more pronounced in majority-black neighborhoods as compared with neighborhoods of different racial/ethnic compositions? Has there been growth in a new type of black neighborhood, one that is predominantly black, relatively advantaged, and spatially advantaged? A related set of questions pertains to African-American individuals and families as opposed to neighborhoods: Is there a growing "new" black middle class, a segment of the black population living in relatively advantaged neighborhoods that are spatially separated from urban poverty? If so, are the changes in the residential environments of the black middle class explained by movement out of black neighborhoods or by movement out of central cities?

To answer these questions requires an expanded view of racial, ethnic, and economic inequality in urban neighborhoods, one that moves beyond the conception of isolated neighborhoods that dominates the quantitative literature. This study integrates spatially lagged measures of neighborhood characteristics into the analysis of neighborhood inequality in order to produce a more comprehensive picture of the residential environments surrounding families of different racial and ethnic groups, including their own neighborhoods as well as the neighborhoods that border them. Using data from the Neighborhood Change Database and the American Community Survey, the analysis provides national evidence on neighborhood disadvantage and spatial disadvantage over time for different segments of racial and ethnic groups living in a range of communities.

The findings that emerge from the analysis provide a new perspective on the black middle class that becomes visible only by distinguishing between trends over time in majority-black, middle-class communities and trends over time in the residential environments of black middle- and upper-income individuals and families. Results conducted at the neighborhood level confirm that racial inequality in urban America is underestimated by failing to consider spatial disadvantage in the area surrounding families' own neighborhoods. Predominantly black neighborhoods, even if they are relatively advantaged, continue to be unique in the degree

to which they are spatially linked with communities of severe concentrated disadvantage. Pattillo's arguments about the unique nature of black middle-class communities are confirmed, and her arguments are relevant for middle-class black communities across the nation.

However, results conducted at the household level reveal substantial change in the average environments of middle- and upper-income African-Americans. Although all groups of African-Americans continue to live in areas with greater levels of neighborhood disadvantage and spatial disadvantage than other racial/ethnic groups, middle- and upper-income African-Americans increasingly live in communities that are spatially separated from highly disadvantaged neighborhoods. These changes are driven primarily by growth in the proportion of middle- and upper-income African-Americans who live outside of central cities and outside of majority-black neighborhoods. This pattern reflects a continuation of Wilson's (1987) findings regarding the out-migration of the black middle class from majority-black communities in central cities, and it is consistent with Lacy's arguments about the "new" black middle class.

NEIGHBORHOOD ATTAINMENT AND SPATIAL SEGMENTATION AMONG AFRICAN-AMERICANS

In their groundbreaking study of Chicago's "Bronzeville" in the 1940s, St. Clair Drake and Horace Cayton described a vibrant community where black cultural and social life thrived despite high poverty, overcrowded and dilapidated housing, and unrelenting discrimination. They documented lively scenes from parks where "Bronzeville's teeming thousands swarm, lounging on the grass, frolicking in the Black Belt's one large swimming pool, fishing and rowing in the lagoon, and playing softball, tennis, or baseball" (1945, p. 603). While noting that certain sections and streets of Bronzeville were known as "lower-class" areas, the authors pointed out that the poor were not confined to any single section of Bronzeville but were "scattered from one end of the community to the other" (p. 602).

Four decades later, William Julius Wilson (1987) called attention to the "out-migration" of the black middle class from poor, central-city neighborhoods as one central reason for the transformation of urban poverty. Analyzing data on the racial and economic composition of neighborhoods in several large cities from 1970 to 1980, Wilson argued that the migration of middle-class African-Americans outside of the "black belt" in Chicago and other cities had led to a new concentration of poverty in the neighborhoods left behind.

Since the publication of Wilson's book, much of the research on non-poor segments of the African-American population has focused on changes over time in geographic location, neighborhood class composition, and ra-

cial composition. Wilson's arguments sparked a tremendous amount of research examining the role of black middle-class migration as a cause of growth in high-poverty neighborhoods (Massey and Eggers 1990; Wilson 1991; Massey, Gross, and Shibuya 1994; Jargowsky 1997; Quillian 1999), as well as research on the changing racial and economic composition in the neighborhoods of different segments of the African-American population (Massey et al. 1994; Sampson and Wilson 1995; Jargowsky 1996; Alba, Logan, and Stults 2000; Adelman et al. 2001; Massey and Fischer 2003; Adelman 2004; Pattillo 2005).

Two broad conclusions can be distilled from this research. First, income segregation among African-Americans has increased over time, meaning that poor and nonpoor blacks are now less likely to live within the same neighborhoods than they were in 1970 (Jargowsky 1996; Massey and Fischer 2003; Pattillo 2005). Second, nonpoor African-Americans continue to live in neighborhoods with lower socioeconomic status, higher crime, lower property values, more pollution, and more physical blight than whites with similar economic status (Logan and Alba 1993; Alba, Logan, and Bellair 1994; Sampson and Wilson 1995; Logan and Stults 1999; Adelman et al. 2001; Adelman 2004; Flippen 2004; Pattillo 2005; Downey and Hawkins 2008; Sharkey 2009; Crowder and Downey 2010). This research has documented how the neighborhood environments of middle- and upper-income African-Americans differ from those of other groups and how they have changed over time; but by focusing solely on individuals' own census tracts, the bulk of this literature does not reveal anything about the larger spatial environment in which African-Americans' neighborhoods are embedded.

Trends in "locational attainment" are important to debates about the black middle class, but equally important are claims about the separation of nonpoor blacks from high-poverty neighborhoods that are the focus of most research on urban poverty (e.g., Wilson 1987; Wacquant and Wilson 1989). Extending the arguments of Wilson beyond the boundaries of the highest-poverty black neighborhoods, Pattillo (1999) argues that the black middle class is unique because of its persistent link to the social problems, poorly functioning institutions, and lack of opportunities found in the urban ghetto (see also Haynes 2001). In her ethnographic research in Chicago, Pattillo describes a vibrant black community in which the majority of families in the community are working, where institutions such as the church are active parts of the community, where the community is highly organized and residents are actively engaged, and where severe poverty is less prevalent and less concentrated than in the distressed Chicago neighborhoods described by Wilson. Yet even in this community, the author relays the routine stories of youths from middle-class backgrounds who are involved with the drug trade, are incarcerated, or are victims of extreme violence.

Pattillo's research reveals how spatial proximity to extremely poor, disadvantaged areas of Chicago and the rigid racial segregation of the city as a whole combine to make it difficult for middle-class blacks to create separation from the problems of the most disadvantaged urban neighborhoods. This research is complemented by the ethnographic work of Lacy (2007), who conducts fieldwork with middle- and upper-income African-Americans living in a range of diverse residential settings, including (1) a predominantly black, middle-income suburban community in Prince George's County, Maryland; (2) a predominantly black, high-income suburban community also in Prince George's County; and (3) a predominantly white, middle-income suburban community in Fairfax County, Virginia. The most notable contrast between the sites of Lacy's fieldwork and Pattillo's fieldwork is that Lacy's sites include black communities that are not linked, spatially or socially, to poor black neighborhoods. In these settings, Lacy finds that African-American families utilize geographic distance to create boundaries from the lower class by moving into exclusive middle-class communities in an attempt to buffer their children from the influence of what they perceive as "ghetto" life. Connections to black social and cultural spaces are strategic and intentional for this segment of the black community and are not the product of constraints on mobility. Although Lacy provides figures describing the distribution of income within the African-American population, her research offers no evidence on how common it is for blacks to live in the types of communities that she describes, beyond stating clearly that these communities are not the norm. One central goal of the present study is to describe the prevalence of spatial advantage and disadvantage in African-American neighborhoods over time and thus to provide evidence on how common the neighborhoods that Lacy describes are across the nation.

An implicit assumption underlying the analysis is that this type of descriptive research on neighborhood inequality and spatial inequality among the black middle class has implications for the study of racial inequality. A common theme of several classic studies of urban poverty is that the burdens associated with life in the urban ghetto—including racial discrimination, violence, and isolation from economic opportunity—do not only make upward mobility less likely but place blacks at a distinct disadvantage when it comes to protecting gains made in social and economic status in one generation and transmitting these gains to the next generation (Clark 1965; Liebow 1967; Rainwater 1970). This idea was reinvigorated by Wilson's research on social isolation in urban ghettos as well as Pattillo's research focusing on majority-black middle-class neighborhoods in Chicago. Pattillo (1999, 2000) argues that middle-class status is different for African-Americans because it does not translate as directly into spatial advantage and spatial separation from the problems of the urban ghetto. Children in black middle-class neighborhoods often are raised in close proximity to

areas where violence is concentrated, where schools are of poor quality, where gang activity is common, and where economic opportunities are sparse. As a result, advances in economic status made by middle-class black parents are precarious, and the risk for downward social or economic mobility is high (see also Isaacs 2007; Sharkey 2009).

The implications of this argument for studies of neighborhoods and racial inequality are profound. Pattillo's argument suggests that it is not only the child's neighborhood environment that may affect his or her life chances but also the larger spatial environment surrounding the child's own neighborhood. Although this article stops short of assessing the effects or consequences of spatial disadvantage, it offers the first national evidence on how spatial disadvantage relates to neighborhood disadvantage in different types of communities. Consistent with Pattillo's ideas, this article also expands the focus of neighborhood research to consider not only neighborhood attainment but also spatial separation from urban disadvantage.

DATA AND METHODS

The Neighborhood Change Database and the American Community Survey

The Neighborhood Change Database (NCDB) is a file created by the Urban Institute and GeoLytics to examine change in the composition of American census tracts over time. The NCDB uses data from the "long form" of the decennial census and makes it possible to analyze the same "neighborhood" over time by developing tract boundaries that are normalized to represent the boundaries of the tract as of 2000. The sample of census tracts for this analysis is limited to tracts located within metropolitan areas and with at least 50 residents as of the given census year.[3] The sample sizes are 45,369 tracts in 1970, 49,827 in 1980, 50,976 in 1990, and 51,131 in 2000.

The long form of the decennial census was discontinued after the 2000 census, which means that information on the social and economic characteristics of census tract residents is no longer available from the census. As an alternative, data on American census tracts are now available from the American Community Survey (ACS). The ACS is a survey of roughly 3 million households per year that is conducted on a rolling basis as opposed to every 10 years. In order to generate reliable estimates of census tract characteristics, it is necessary to combine multiple years of data from

[3] The term "metropolitan areas" is used throughout the text. To be precise, I use the Census Bureau's definitions of primary metropolitan statistical areas and metropolitan statistical areas to define metropolitan areas. The boundaries for metropolitan areas are based on the official definitions in 1999.

the survey. The analyses in this article use files that combine data from survey years 2005–9. Data from the ACS are included to provide more updated figures than those provided by the 2000 census, but these figures may obscure the amount of change that occurred in U.S. neighborhoods because they average data from the years before and during the major economic downturn that began in 2008.

Although figures from the 2005–9 ACS are included in the analyses of trends, primary focus is devoted to census tract data from the 2000 census. There are several reasons why the analysis focuses on the long-form data from the 2000 census. First, data from the 2000 census were collected using the same methods as in previous years, providing consistency in the study of trends. Second, data from the 2000 census are based on a much larger sample than the 2005–9 data from the ACS. Third, data from the 2000 census represent the characteristics of U.S. census tracts at a specific point in time, whereas the data from the ACS are based on several years of data collection, making it more difficult to interpret what these neighborhoods looked like at any given point in time.

Measuring Neighborhood Concentrated Disadvantage and Spatial Disadvantage

Drawing on previous research that emphasizes the multiple dimensions of neighborhood inequality, the analysis utilizes a scale of neighborhood concentrated disadvantage (Sampson, Raudenbush, and Earls 1997). The normalized scale is generated from a principal component analysis of five census tract characteristics found in previous research to load on a single factor, which is referred to as "concentrated disadvantage": welfare receipt, poverty, unemployment, female-headed households, and density of children (percentage of residents under 18). Because much of the analysis is focused on neighborhoods with different racial and ethnic composition, the racial composition of census tracts is not included in this measure (Burdick-Will et al. 2011).[4] The scale of concentrated disadvantage is based on all U.S. census tracts and is generated separately in census years 1970, 1980, 1990, and 2000. The same measure is then constructed using data from the ACS pooled over 2005–9.

In addition to the measure of neighborhood concentrated disadvantage in the census tract, a spatially lagged measure—referred to as *spatial disadvantage*—is constructed to capture disadvantage in the neighborhoods that border the focal census tract (Anselin 1988, 2003; Anselin, Syabri, and Kho 2006; Crowder and South 2008). Spatial disadvantage is measured

[4] The scale of concentrated disadvantage that includes a measure of racial composition (% black) is correlated at .98 with the scale used in the present analysis.

by taking the average value on the measure of concentrated disadvantage in all tracts that surround the focal tract using the "queen criterion," which means that all tracts sharing a border or a vertex with the focal tract are given equal weight in the calculation of spatial disadvantage. Tracts that do not share a border or vertex with the focal tract are assigned a weight of zero and thus are not included in the calculation of spatial disadvantage. The measure of spatial disadvantage is constructed for the full sample of census tracts in each census year. All data on census tracts are based on the boundaries of tracts as of 2000.

In all periods, "advantaged" census tracts are defined as tracts with a level of concentrated disadvantage below zero, the national average; "disadvantaged" tracts are those with a level of concentrated disadvantage of zero or higher. Similarly, "spatially advantaged" tracts are defined as those that are surrounded by tracts with an average level of concentrated disadvantage below zero, and "spatially disadvantaged" tracts are those surrounded by tracts with an average level of concentrated disadvantage of zero or higher. A second measure of spatial disadvantage identifies whether the focal census tract shares a border with any tracts that have a "severe" level of concentrated disadvantage, defined as at least two standard deviations greater than the national average. This measure captures spatial connections to (or separation from) severe concentrated disadvantage.

The measure of spatial disadvantage in this study uses information from only the tracts bordering the focal tract and thus focuses on "spatial contiguity" as the primary means of capturing spatial disadvantage. Alternative approaches to measuring neighborhood characteristics in surrounding neighborhoods incorporate information on all census tracts within a given radius surrounding the focal tract, weighting the characteristics of these tracts on the basis of their proximity to the focal tract. Examples of such alternative measures, which rely on distance decay functions, can be found in studies examining the influence of extralocal neighborhood conditions and neighborhood change on rates of mobility and on individual mobility decisions (e.g., Sampson et al. 1999; Crowder and South 2008, 2011).

In the current application, primary theoretical interest lies in the degree to which middle-class African-American neighborhoods are directly connected with or isolated from communities with high levels of concentrated disadvantage. The arguments of Pattillo and Lacy provide a theoretical basis for measuring spatial disadvantage using the spatial contiguity approach. For instance, Pattillo argues that direct proximity to the traditional black ghetto communities of Chicago alters the experience of African-Americans in middle-class, majority-black communities, distinguishing these communities from white communities with similar economic compositions: "Unlike most whites, middle-class black families must contend with the crime, dilapidated housing, and social disorder in the deteriorating poor neigh-

borhoods that continue to grow in their direction. Residents attempt to fortify their neighborhoods against this encroachment, and limit their travel and associations to other middle-class neighborhoods in the city and suburbs. Yet even with these efforts, residents of black middle-class neighborhoods share schools, grocery stores, hospitals, nightclubs, and parks with their poorer neighbors, ensuring frequent interaction within and outside the neighborhood" (Pattillo 1999, p. 6). Similarly, Lacy points to the geographic separation from high-poverty black communities as a distinguishing feature of the new black middle-class experience:

> The array of identities constructed and asserted by these middle-class blacks through their boundary-work are possible because they live in residential communities that represent exceptions to the rule in terms of where most black people live. Sherwood Park residents needn't worry about gang wars in their community or about an upturn in teenage pregnancy rates, because these things do not happen there. Riverton residents don't worry about their children's safety when they play outside. There are no drive-by shootings in Riverton. . . . The mental stability that these communities provide distinguishes them from the black lower-middle-class neighborhoods typically studied by social scientists. (Lacy 2007, p. 226)

In each case, the arguments do not translate to a geographically linear conception of spatial disadvantage that is assumed with the use of distance decay functions, in which communities that are three miles away from a family's neighborhood are assumed to be one-third as important to the family as a community that is one mile away.[5] Pattillo's argument focuses explicitly on shared boundaries between contiguous communities and the interactions that arise from such shared boundaries. In Lacy's argument, it is the geographic separation from high-poverty communities that is central to the experience of her study populations. The boundaries between communities and the geographic buffer provided by other communities are central to the theoretical arguments about the residential experiences of the black middle class. The analytic decision to measure spatial disadvantage using only the neighborhoods that are contiguous to the focal tract is driven directly by the theoretical claims made by both scholars.

However, the spatial contiguity approach comes with limitations, and some of the findings documented throughout the article are sensitive to the method of measuring spatial disadvantage. To assess the sensitivity of the results, two alternative spatial weights matrices were developed that utilize distance decay functions. The first measure incorporates information from the 20 tracts closest to the focal tract, giving more weight to

[5] Nonlinear functions can also be used, of course, which mitigates the problem of incorporating information from areas that are far removed from the focal tract. For instance, Crowder, Hall, and Tolnay (2011) utilize a nonlinear distance decay function that gives very little weight to tracts beyond distances greater than 10 or so miles.

tracts that are closest. Results using this measure are extremely similar to the results using the spatial contiguity approach and suggest that if one moves slightly beyond the tracts immediately bordering the focal tract, the findings in the article are not affected.

The second measure uses a weighted average of disadvantage in all tracts up to 20 miles away in distance from the focal tract, limiting the focus to the 100 closest tracts, with closer tracts contributing more to the weighted measure. When this measure is used, the gaps in levels of spatial disadvantage between majority-white and majority-nonwhite communities look less severe than when the spatial contiguity measure is used (or the 20 "nearest neighboring tracts" measure). The differences are attributable to the way in which predominantly black neighborhoods (and other nonwhite neighborhoods) tend to be clustered together tightly within relatively small, disadvantaged sections of metropolitan areas. The measure of spatial disadvantage derived from this distance decay function utilizes information from tracts that are located well outside of these sections of cities, whereas the spatial contiguity measure does not extend as far outward and thus does not incorporate as much information from other parts of urban areas. White communities look slightly less spatially advantaged as a result, and nonwhite communities look less spatially disadvantaged. Comparisons of spatial disadvantage among nonwhite communities (for instance, majority-black neighborhoods vs. majority-Hispanic neighborhoods) look very similar, and there are no substantive differences in conclusions about trends over time when using the alternative measure of spatial disadvantage. Notes are included in the text to indicate findings that are sensitive to the measure of spatial disadvantage.

Although the spatial contiguity approach fits well with the theoretical and empirical goals of this article, the implicit assumption made in adopting this approach is that tracts that are more than one neighborhood removed from the focal tract have no impact on individuals and families within the focal tract. For some domains of analysis, such as labor market opportunities, this assumption is likely to be unrealistic, and a measure based on a distance decay function may be more appropriate. There are other limitations of the spatial contiguity approach that create problems of measurement error and should be acknowledged. The use of census tract boundaries to operationalize "neighborhoods" has been challenged on multiple fronts, one being that the boundaries of tracts do not align with resident-based definitions of their "neighborhoods" (Lee and Campbell 1997; Sastry, Pebley, and Zonta 2002). This issue raises the larger challenge of how to create standardized measures of neighborhoods or communities that can be used for this type of national analysis.

One alternative to tracts is a measure developed by Grannis (1998, 2005) that utilizes networks of walkable streets to capture residents' use of space

and the local "order" of segregation in a more accurate way. Measures of pedestrian street networks are not available nationally, but comparisons of the findings presented here with results obtained using Grannis's operationalization of pedestrian street networks in specific cities would be informative (see Grannis 2005). Alternatively, Lee et al. (2008) argue against the use of census tracts to capture racial and ethnic segregation because of their inconsistent size and shape and their inability to capture spatial dynamics at different geographic scales. They propose measures of local environments that capture compositional characteristics of the population living within radial distances of varying lengths from individual census blocks. This approach is extremely effective in measuring population characteristics at different spatial scales. However, this approach is vulnerable to the long-standing argument, dating back to the work of Zorbaugh (1929, pp. 231–34), that sections of cities and suburbs are divided into communities or "natural areas" by an array of barriers—nonresidential streets, railroad lines, highways, streams, and so forth—that serve as boundaries distinguishing and separating communities from each other, with varying levels of permeability. The implication is that physical distance is not sufficient for capturing the organization of urban life or urban communities.

This observation is visible from a quick look at the spatial configuration of Chicago's neighborhoods as shown in figure 1, a map that is analyzed later in the article. If one were to pick a point on the map and draw a circle around it, the circle would likely contain many different types of communities, some of which may be closely connected to each other through institutions and local street networks, and others that may be separated entirely by major highways or parks. The array of boundaries between communities is central to the arguments made in this article, and they are ignored by measures of local environments that focus only on distance. As Grannis remarks in proposing his measure of pedestrian street networks to study racial segregation, "Racial segregation patterns reflect an attempt to separate races along the residential street network, not to keep them spatially distant" (1998, p. 1531).

This critique of pure distance-based measures of communities does not mean that census tracts represent an ideal alternative. As noted by Grannis (1998), census tract boundaries do not correspond with less obvious boundaries created by networks of smaller urban streets, and these street networks may be crucially important for the daily interactions that are central to the arguments of Pattillo and Lacy. This discussion simply serves as a reminder that all measures of spatial advantage and disadvantage are limited and contain some element of measurement error due to the imperfect operationalization of neighborhoods. Again, it would be informative for future research to compare patterns of neighborhood inequality and

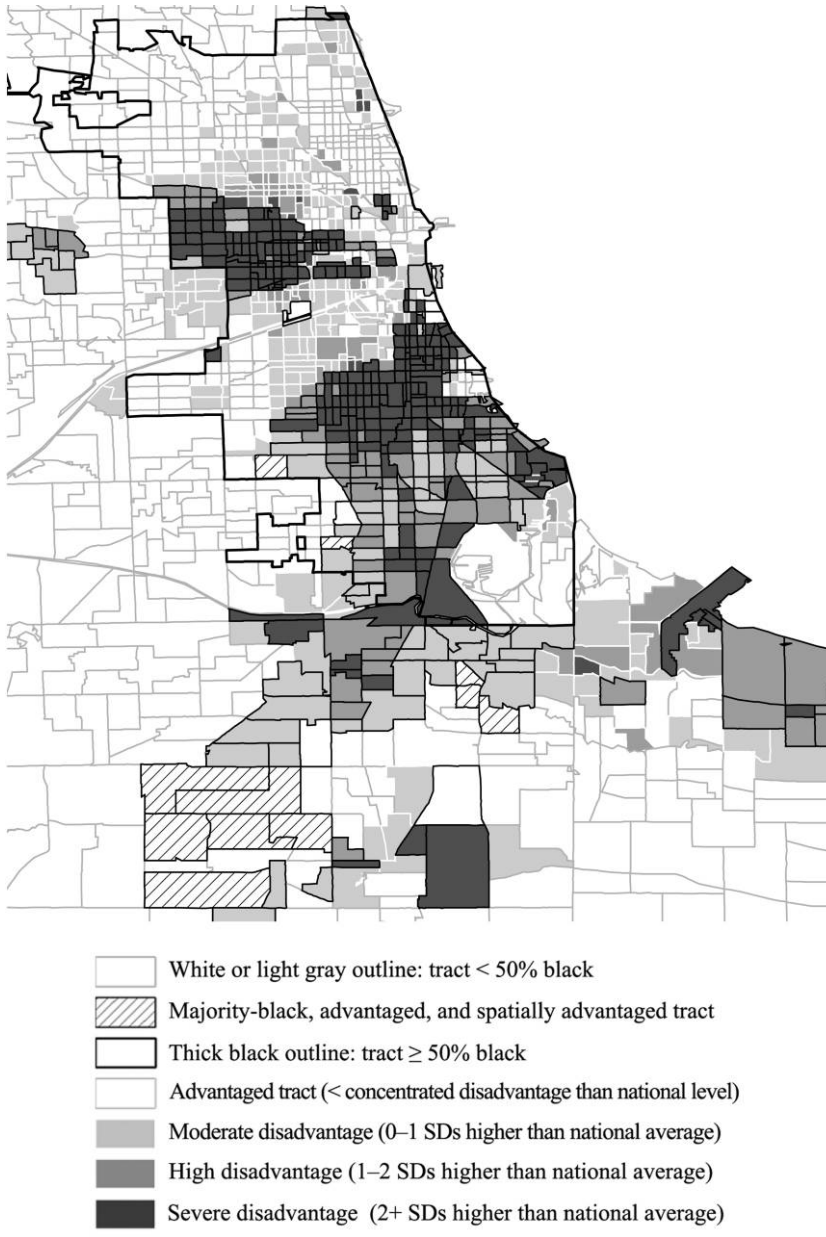

FIG. 1.—Neighborhood disadvantage in and around Chicago as of 2000. Data are from the Neighborhood Change Database.

spatial inequality using tracts with patterns using distance-based measures such as those proposed by Lee et al. (2008; see also Reardon et al. 2008). For the purposes of this study, a strong case can be made that census tracts come closest to a common measure of the neighborhood that is available nationally, that is broadly consistent across all metropolitan areas, and that reflects salient community economic and demographic characteristics and important physical and geographic boundaries that separate communities.

Defining the Black "Middle Class"

There is a long history of scholarship on stratification within the African-American population, an excellent review of which can be found in Lacy (2007, chap. 1; see also Landry 1987). This literature uses various measures to operationalize class within the black population, including occupation, income, wealth, home ownership, and education, along with lifestyle and culture. Because one of the central goals of this article is to provide evidence that is directly relevant to the recent arguments on the black middle class put forth by Lacy and Pattillo, the definitions of middle-class status employed throughout the analysis follow directly from the work of these two scholars, using Lacy's (2007) classification scheme in particular. Lacy argues that class status within the African-American population can be summarized most effectively by categorizing the black population within income groups. Specifically, she identifies three broad segments of the black middle class: the "lower middle class," composed of households earning from $30,000 to $49,999 per year; the "core" black middle class, composed of households earning from $50,000 to $99,999; and the "elite" black middle class, composed of households earning at least $100,000 annually. In certain analyses these three segments of the black middle class are pooled together, and in other analyses the different segments are analyzed separately. When analyzed together, all African-American families earning at least $30,000 per year are pooled and labeled "middle- and upper-income African-Americans." To be consistent with Lacy's classification, income groups are defined using dollars as of 2000. The Consumer Price Index (CPI-U-RS) is used to inflate figures from 1970, 1980, and 1990 into 2000 dollars and to deflate figures from 2005–9 into 2000 dollars (using 2007 to represent the average of the period 2005–9).[6]

[6] The transformation of income figures into 2000 dollars means that the income bins reported in census years 1970, 1980, 1990, and 2005–9 do not align perfectly with the income classifications used by Lacy. To generate equivalent income groups in each census year, I assume that households are evenly distributed within income bins provided by the census. In practice, this assumption is of minimal importance because the income bins

Because this classification is somewhat coarse and does not capture the various dimensions of stratification within the black population, several of the analyses were conducted using alternative definitions of middle-class status that focus on poverty status and educational attainment. In general, the patterns of racial disparities and of trends over time are highly consistent using these alternative definitions, suggesting that the overarching findings related to racial/ethnic group differences and trends over time are not driven by the definitions employed.

A Note about Comparisons

The analysis in this article is descriptive and focuses on comparisons of means or proportions between groups and within groups over time. This type of descriptive sociological or demographic research typically relies on tests of statistical significance to make inferences about differences in the population based on what is observable in the sample. This article does not use tests of statistical significance, for several reasons. The first is that the data are based on the full population of metropolitan census tracts in the United States over time. It is not necessary (or, some might argue, appropriate) to make inferences about a larger "superpopulation" because the population of interest is observed in the data. Second, and more important, the actual comparisons presented in the article provide much more information about differences between groups than would tests of statistical significance. For instance, it is much more helpful to report the difference in the levels of spatial disadvantage in majority-black and majority-white neighborhoods than to report whether there is sufficient evidence to reject the null hypothesis of no difference between the two types of neighborhoods. Third, by blindly applying tests of statistical significance even in places where they do not offer meaningful information, there is the risk of reifying the importance of statistically significant differences between groups as opposed to substantively meaningful differences between groups. The latter are the focus of this study.

RESULTS

The relationship between neighborhood disadvantage and spatial disadvantage is examined from two perspectives. First, census tracts in metropolitan areas around the nation are classified by racial and ethnic composition and by the degree of neighborhood disadvantage and spatial disadvan-

provided by the census are fairly small, meaning that minimal error arises because of the transformation of dollar figures in each year.

tage. Second, the analysis moves to the household level and describes the average environments of individual households from different racial/ethnic backgrounds and from different income groups. As a reminder, in the tables and figures that follow, "advantaged" census tracts are those with a level of concentrated disadvantage below zero, the national average, and "spatially advantaged" tracts are those that are surrounded by tracts with an average level of concentrated disadvantage below zero. "Disadvantaged" tracts are those with a level of concentrated disadvantage of zero or higher, and "spatially disadvantaged" tracts are those surrounded by tracts with an average level of concentrated disadvantage of zero or higher. Analyses using more detailed categories describing the severity of advantage and disadvantage can be found in the full matrices in appendix tables A1–A4.

Neighborhood and Spatial Inequality: A Tract-Level Analysis

Table 1 shows the relationship between concentrated disadvantage and spatial disadvantage in metropolitan census tracts that are predominantly African-American, white, Hispanic, or racially/ethnically "mixed" in census year 2000 ("mixed" tracts are defined as tracts where there is no single racial or ethnic group that composes at least half of the tract population; note also that the categories are not entirely mutually exclusive because Hispanics are allowed to be classified in more than one group). The vast majority of predominantly black and Hispanic tracts, respectively, are disadvantaged and spatially disadvantaged. Whereas 87% of black tracts and 83% of Hispanic tracts are characterized by neighborhood disadvantage and spatial disadvantage, just 53% of mixed tracts and only 16% of predominantly white tracts fall into this category. A majority of predominantly white tracts (68%) are advantaged and surrounded by spatial advantage, compared to 26% of mixed tracts, 4% of black tracts, and 5% of Hispanic tracts.[7]

[7] Note that the relatively high percentage of majority-white tracts that are advantaged and spatially disadvantaged (9%) is due to the fact that such a high proportion of all white tracts are advantaged. These figures are cell percentages; if one shifts attention to row percentages, the figures in app. table A2 show that among the advantaged majority-white tracts, only about 12% are surrounded by spatial disadvantage, which is a much smaller share than for nonwhite tracts. When the measure of spatial disadvantage that relies on a distance decay function is used, the figures shown in table 1 are somewhat different. For instance, the proportion of majority-black and majority-Hispanic neighborhoods that are disadvantaged and spatially disadvantaged drops to 81% and 76%, respectively. The proportion of mixed neighborhoods drops to 44%, and the proportion of white neighborhoods drops slightly to 4%. The proportion of tracts that are advantaged and spatially advantaged changes only slightly for majority-black, majority-Hispanic neighborhoods, and mixed neighborhoods but drops to 54% in majority-white neighborhoods.

TABLE 1

NEIGHBORHOOD DISADVANTAGE AND SPATIAL DISADVANTAGE AMONG TRACTS WITH VARYING RACIAL COMPOSITION IN 2000

	Majority-Black Tracts	Majority-White Tracts	Majority-Hispanic Tracts	Racial/Ethnic Mixed Tracts
Neighborhood advantage and spatial advantage:				
% tracts that are advantaged and surrounded by spatial advantage	4	68	5	26
% tracts that are advantaged and surrounded by spatial disadvantage	4	9	6	9
% tracts that are disadvantaged and surrounded by spatial advantage	5	7	7	12
% tracts that are disadvantaged and surrounded by spatial disadvantage	87	16	83	53
Proximity to extreme disadvantage:				
% tracts bordering at least one severely disadvantaged tract	64	8	35	26
% advantaged tracts bordering severely disadvantaged tract	15	4	7	5
% disadvantaged tracts bordering severely disadvantaged tract	68	23	38	36
n	5,809	40,984	3,940	2,228

NOTE.—Sample is all census tracts within metropolitan areas, Neighborhood Change Database.

These initial figures indicate that neighborhood inequality across different racial and ethnic groups is amplified by spatial inequality. Although this point has been observed in prior research focused on specific cities and metropolitan areas (e.g., Jargowsky 2003), the relationship between neighborhood inequality and spatial inequality has not been examined in a comprehensive way at the national level.[8] Moving beyond the general point that spatial disadvantage amplifies neighborhood disadvantage among nonwhite racial and ethnic groups, what do these results tell us about Pattillo's argument that advantaged neighborhoods of African-Americans are qualitatively different from those of white neighborhoods? To assess this argument it is necessary to isolate the set of advantaged, primarily black neighborhoods and describe the degree to which they are surrounded by spatial disadvantage; the full matrices of neighborhood disadvantage and spatial disadvantage, shown in appendix tables A1–A4, allow for this type of analysis.

Calculations based on the full matrices indicate that about half (49%) of advantaged, majority-black neighborhoods are surrounded by neighborhoods that are more disadvantaged than the average tract across the country. A similar percentage of advantaged majority-Hispanic tracts (54%) and a smaller percentage of advantaged racially/ethnically mixed tracts (25%) are surrounded by disadvantaged tracts. By contrast, only 12% of advantaged majority-white neighborhoods are surrounded by disadvantaged neighborhoods. These figures indicate that predominantly African-American neighborhoods and predominantly Hispanic neighborhoods that are relatively advantaged are commonly surrounded by more disadvantaged neighborhoods; this is less common for mixed neighborhoods and less common still for predominantly white neighborhoods.

The bottom rows of table 1 provide an additional perspective on spatial disadvantage by displaying the proportion of neighborhoods in each category that share a border with at least one severely disadvantaged tract, defined as a tract with a level of concentrated disadvantage that is at least two standard deviations higher than the national average. Rather than considering all of the neighborhoods surrounding the focal tract, this analysis considers whether there is any spatial link to areas of severe disadvantage. Although black and Hispanic tracts have similar levels of overall neighborhood disadvantage and spatial disadvantage, predominantly black tracts are

[8] The only national analysis of spatially lagged neighborhood inequality was conducted as part of a review of Lacy's (2007) book and included an analysis of the number of cities across the country that featured predominantly black communities in 2000 that were of high economic status and were surrounded by other neighborhoods of high economic status. Figures on neighborhood and spatial disadvantage were not included in the book review. See Sharkey (2008*b*).

more likely to share a border with at least one severely disadvantaged tract. Almost two-thirds (64%) of majority-black tracts share a border with a severely disadvantaged tract, compared to 35% of Hispanic tracts, 26% of mixed tracts, and 8% of white tracts.

Advantaged tracts, no matter their racial/ethnic composition, are much less likely to share a border with a severely disadvantaged tract. Within the group of advantaged tracts, however, predominantly African-American tracts are more than twice as likely as tracts with any other racial/ethnic composition to share a border with a severely disadvantaged tract. Fifteen percent of advantaged majority-black tracts share a border with at least one severely disadvantaged tract, compared to 7% of advantaged majority-Hispanic tracts. The same racial/ethnic gaps in exposure to severely disadvantaged tracts are found within the group of disadvantaged tracts: 68% of disadvantaged majority-black tracts share a border with at least one severely disadvantaged tract. Neighborhoods that are not majority-black are much less likely to share a border with a severely disadvantaged tract.

Three conclusions stand out from this first set of analyses conducted at the level of the census tract. First, spatial inequality amplifies neighborhood inequality in all census tracts, no matter their racial/ethnic composition. This finding is not entirely surprising considering that individual census tracts are embedded within larger sections of urban areas that are highly stratified by both race/ethnicity and class. Second, even if the individual neighborhood is relatively advantaged, predominantly black and predominantly Hispanic neighborhoods are highly likely to be surrounded by spatial disadvantage. Roughly half of all advantaged neighborhoods that are majority black or majority Hispanic are surrounded by spatially disadvantaged tracts, reflecting a level of spatial disadvantage that is less common in diverse, multiethnic tracts and rare among majority-white tracts. Third, African-American neighborhoods are unique in the degree to which they are spatially linked to neighborhoods with severe levels of concentrated disadvantage. Predominantly black neighborhoods, whether advantaged or disadvantaged, are much more likely than neighborhoods with different racial/ethnic compositions to share a border with at least one census tract that is severely disadvantaged. This type of spatial link to the nation's most distressed neighborhoods distinguishes African-American neighborhoods from neighborhoods that are composed of other racial/ethnic groups.

These national patterns can be placed into a more local context through maps of specific metropolitan areas. Figure 1 displays census tracts in Chicago, the site for Pattillo's research, and its surrounding suburbs. In this map and those that follow, census tracts outlined in thick black lines are composed of at least 50% African-American residents, and census tracts outlined in white (or light gray) are composed of less than 50% African-

American residents. Tracts are shaded by the level of concentrated disadvantage, with the darkest-shaded tracts indicating severe levels of concentrated disadvantage (more than two standard deviations above the national average) and the white tracts representing "advantaged" tracts (lower levels than the national average). Tracts that are majority black, advantaged, and spatially advantaged are marked with diagonal stripes.

In the Chicago metropolitan area, most of the majority-black tracts that are advantaged and spatially advantaged are located in a few of the suburbs south of the city, and two are located on the western edge of the largely black South Side of the city. Several features of the spatial pattern present in Chicago are found in many metropolitan areas around the country that have a large number of majority-black communities. First, consistent with the national evidence, most majority-black tracts in Chicago and elsewhere are embedded within highly disadvantaged clusters of tracts in racially segregated sections of cities. Even majority-black tracts with relatively low levels of disadvantage are usually surrounded by highly disadvantaged tracts. This pattern is clearly visible in figure 1 and serves as the basis for Pattillo's (1999) argument about the unique nature of middle-class black neighborhoods.

Second, there is a small group of majority-black neighborhoods that are advantaged and spatially advantaged and that are located within or near the boundaries of the central city. These neighborhoods are found at the outer edge of the predominantly black section of the South Side of the city and are contiguous with neighborhoods that are either majority white or racially diverse and relatively advantaged. This pattern of spatial advantage "at the edge" of the predominantly black sections of a city is common to many metropolitan areas around the country. Third, there is another group of majority-black neighborhoods that are advantaged and spatially advantaged and that are located further outside of the central city, in suburban areas south of Chicago. In the small number of metropolitan areas that contain advantaged, majority-black neighborhoods in the suburbs, these neighborhoods typically are clustered together and are contiguous with other advantaged neighborhoods with different racial or ethnic compositions.

Other metropolitan areas with a substantial number of majority-black neighborhoods typically share at least one of the characteristics of Chicago's spatial configuration of black neighborhoods, and some share all of the same features. Metropolitan areas as geographically diverse as Cleveland and Memphis (shown in app. figs. A1 and A2) exhibit all of the same basic features of Chicago's advantaged black communities, although at a smaller scale. In these urban areas, most black communities are located within highly disadvantaged, predominantly black sections of the central city; there are a small number of advantaged black neighborhoods at the edge of the largely black sections of the central cities; and there are a small

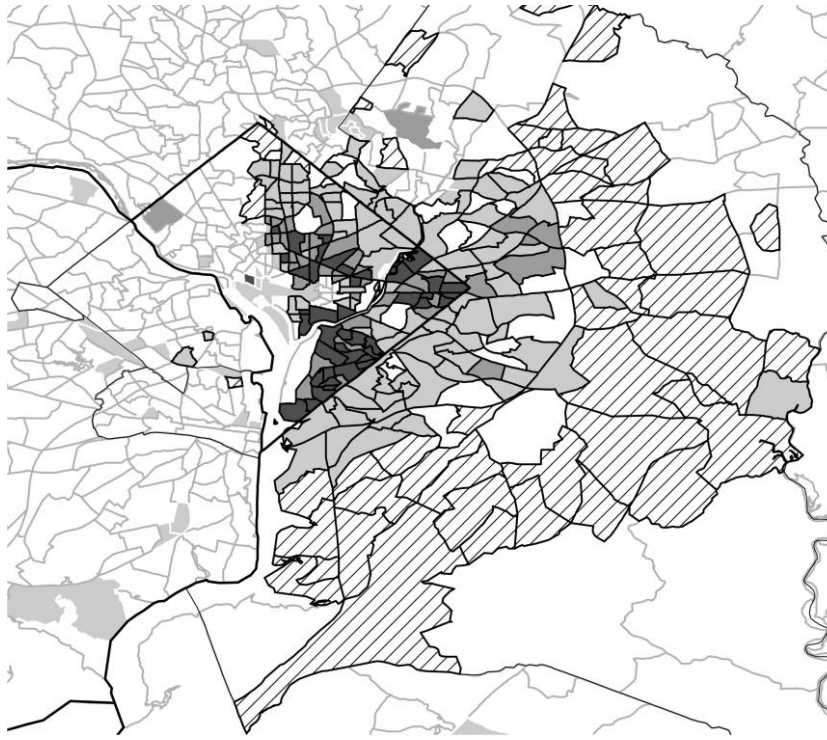

FIG. 2.—Neighborhood disadvantage in and around Washington, D.C., as of 2000. Data are from the Neighborhood Change Database (for key, see fig. 1 above).

number of advantaged, spatially advantaged black neighborhoods that are surrounded by other advantaged communities in the suburbs.

In other metropolitan areas, the same pattern of spatial disadvantage exists, but there are virtually no majority-black neighborhoods that are advantaged and spatially advantaged. The Miami metropolitan area, which is mapped in appendix figure A3, is an example of an urban area in which none of the majority-black tracts are advantaged and surrounded by other advantaged tracts. In the Los Angeles metropolitan area, the few advantaged black neighborhoods are contiguous with more disadvantaged communities, and in 2000 there were only three majority-black neighborhoods across the entire metropolitan area that were advantaged and spatially advantaged (see app. fig. A4).

Figure 2 reveals a very different configuration of advantaged, primarily black communities in the area surrounding Washington, D.C., the setting for Lacy's (2007) research. Suburban Washington, D.C., is notable for the large cluster of advantaged and spatially advantaged majority-black neighborhoods in Prince George's County, Maryland, to the east

of the city. There are suburban sections of a few other metropolitan areas that feature similar clusters of advantaged black communities, such as Richmond, Virginia, and Atlanta (shown in app. figs. A5 and A6), but these areas of predominantly black, advantaged, and spatially advantaged neighborhoods are nowhere near as large as the cluster found to the east of Washington, D.C.

The large section of advantaged, suburban, predominantly black communities makes Lacy's research site a clear outlier and adds context to her observations about the environments of the black middle class. In making the argument that the literature has not considered the full range of residential experiences of the black middle class, Lacy suggests that the primary distinction between her study population and the populations studied in other research on the black middle class is income. Lacy writes, "Lower-middle-class blacks, the focus of most sociological research on the black middle class, have very little in common with the white middle class," and continues by arguing that "middle-class blacks at the top of the black class structure do not experience a middle-class lifestyle in the same way that those at the bottom do. The middle-class subdivisions in the suburbs of Washington, D.C., that I studied do not contain poor residents, nor do these communities suffer from the relentless social and economic maladies that plague poor communities" (2007, pp. 2–3). The distinctions that Lacy notes are likely driven in part by differences in the economic status of Lacy's study population, but they are also driven by the very unique study site selected for her research. The national analysis conducted here indicates that predominantly black, middle-class communities that are isolated from concentrated disadvantage are rare across the country, and there are few urban areas that feature large clusters of such communities, as is found in suburban Washington, D.C. Lacy's arguments about the black middle class are thus driven, in part, by the unique characteristics of her study site. But these conclusions are also driven by a perspective that focuses not only on middle-class black communities but also on middle-class black households living in different types of neighborhoods. The next section analyzes neighborhood inequality at the level of the household.

Neighborhood and Spatial Inequality: A Household-Level Analysis

Results shown in table 2 describe the average environments of all middle- and upper-income black, white, and Hispanic households as of 2000. These figures are generated by analyzing the average levels of neighborhood and spatial disadvantage across all tracts, weighted by the number of middle- and upper-income households from each racial/ethnic group in each type of tract. In this analysis, middle- and upper-income households are defined

TABLE 2
AVERAGE LEVELS OF NEIGHBORHOOD DISADVANTAGE AND SPATIAL DISADVANTAGE AMONG MIDDLE/UPPER-INCOME HOUSEHOLDS FROM DIFFERENT RACIAL/ETHNIC BACKGROUNDS IN 2000

	Black	White	Hispanic
Neighborhood advantage and spatial advantage:			
% in advantaged tracts surrounded by advantaged tracts	31	77	39
% in advantaged tracts surrounded by disadvantaged tracts	8	8	9
% in disadvantaged tracts surrounded by advantaged tracts	9	5	8
% in disadvantaged tracts surrounded by disadvantaged tracts	52	11	44
Proximity to extreme disadvantage:			
% living in tract that borders at least one severely disadvantaged tract	32	6	16
% living in advantaged tract that borders at least one severely disadvantaged tract	6	3	3
% living in disadvantaged tract that borders at least one severely disadvantaged tract	49	22	28

NOTE.—Sample is all census tracts within metropolitan areas, Neighborhood Change Database.

as those earning at least $30,000 annually, in accordance with the definition used by Lacy (2007).

Among middle- and upper-income households, African-Americans are more likely than Hispanics or whites to live in disadvantaged neighborhoods that are surrounded by spatial disadvantage. More than half of middle- and upper-income African-American households (52%) live in neighborhoods that are disadvantaged and surrounded by disadvantage, compared to 44% of Hispanic households and 11% of white households. Only 31% of middle- and upper-income black households live in advantaged tracts that are surrounded by spatial advantage, compared to 39% of Hispanics and 77% of whites.[9] If one isolates middle- and upper-income households in advantaged tracts, similar racial/ethnic patterns of spatial disadvantage emerge. Results not shown in the table indicate that 20% of middle- and upper-income African-American households and 18% of Hispanic households in advantaged tracts are surrounded by spatial disadvantage, compared to 9% of similar white households.

[9] Using the distance decay function to measure spatial disadvantage again produces very slightly different results. When the distance decay function is used, the proportion of middle- and upper-income blacks in disadvantaged and spatially disadvantaged neighborhoods is 49%, compared to 3% for Hispanics and 10% for whites. The proportion of middle- and upper-income blacks in advantaged and spatially advantaged neighborhoods is 22%, compared to 31% for Hispanics and 61% for whites.

The bottom panel of table 2 reinforces the observation that middle- and upper-income African-Americans are unique in the degree to which they live in neighborhoods with a spatial link to areas of severe concentrated disadvantage: 32% of middle- and upper-income African-American households live in a neighborhood sharing a border with at least one severely disadvantaged tract, compared to 16% of similar Hispanic households and 6% of white households. The same racial/ethnic differences in proximity to severe disadvantage are found among those living in advantaged tracts and in disadvantaged tracts, although it is rare for all groups of middle- and upper-income households living in advantaged tracts to share a border with a severely disadvantaged tract.

Collectively, results describing the average neighborhoods of the middle and upper class are consistent with the conclusions from the neighborhood-level analysis shown in table 1. In each case, the results reflect the way in which spatial disadvantage reinforces neighborhood disadvantage for African-Americans and Hispanics. Consistent with Pattillo's arguments, this initial set of results also reveals very clearly that middle-class status is less likely to lead to spatial separation from severe neighborhood disadvantage for African-Americans.

One of the limitations of the results shown in table 2 is that all households earning more than $30,000 are lumped together in a single group, potentially obscuring differences among different segments of middle- and upper-income households. This issue is explored in a more refined way in figure 3, which displays the average level of concentrated disadvantage and spatial disadvantage in 2000 for African-Americans, Hispanics, and whites from different segments of the income distribution. As in Lacy's (2007) income-based classification of different segments of the black middle class, the "lower middle class" is defined as households earning from $30,000 to $49,999 per year, the "core" black middle class is defined as households earning from $50,000 to $99,999, and the "elite" black middle class is defined as households earning at least $100,000 annually. The figure also includes the segment of households earning less than $30,000 annually as a reference group.

African-Americans in each income group live in neighborhoods with substantially greater levels of concentrated disadvantage and spatial disadvantage than both Hispanics and whites, although the gap between blacks and whites is particularly pronounced. The racial and ethnic gaps in neighborhood disadvantage are slightly more severe than the gaps in spatial disadvantage; however, the patterns of racial and ethnic disparities are virtually identical. Focusing on the different segments of the middle class as defined by Lacy, the figure shows that the average lower-middle-class African-American household ($30,000–$49,999) lives in a neighborhood that has a level of concentrated disadvantage roughly 0.7 standard devia-

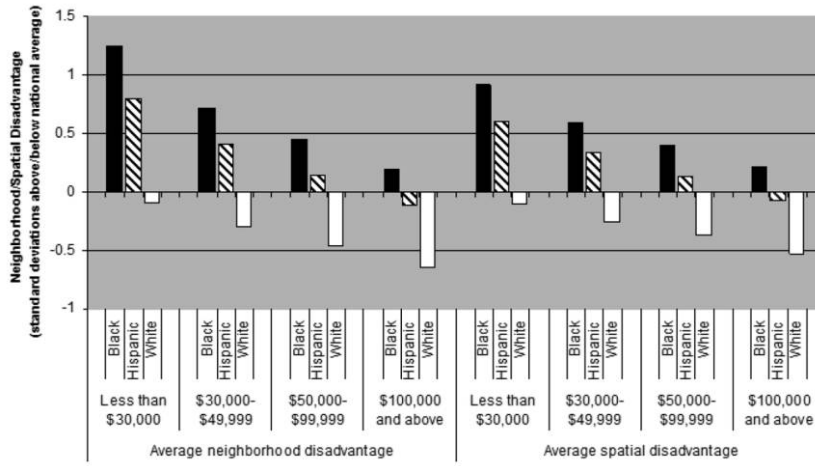

FIG. 3.—Average level of concentrated disadvantage and spatial disadvantage in 2000 for households, broken down by race and income group. Sample is all census tracts within metropolitan areas, Neighborhood Change Database.

tions greater than the national average and a level of disadvantage in the surrounding neighborhoods that is almost 0.6 standard deviations greater than the national average. Hispanics in the same income group live in slightly less disadvantaged environments, while whites in the same income group live in neighborhoods with levels of concentrated disadvantage and spatial disadvantage roughly 0.3 standard deviations lower than the national average.

Households from the core middle class ($50,000–$99,999) and the elite middle class ($100,000+) live in successively less disadvantaged neighborhood environments, but the same racial and ethnic gaps persist within each income group. Perhaps the most interesting comparison from figure 3 is the comparison of African-Americans in the elite middle class with whites in the lower class—that is, whites in households earning less than $30,000 per year. Elite middle-class African-Americans live, on average, in neighborhoods with levels of concentrated disadvantage and spatial disadvantage that are 0.2 standard deviations higher than the national average. Whites in the lower class live in neighborhoods with levels of concentrated disadvantage that are 0.1 standard deviations lower than the national average. In other words, the average African-American household earning more than $100,000 per year lives in a neighborhood with higher levels of disadvantage and spatial disadvantage than the average white household earning less than $30,000 per year. This finding expands on prior research and shows that racial inequality in neighborhood environments—as well as

in the larger spatial environment—is not explained by group differences in household income (see also Logan 2011).

Trends in Neighborhood and Spatial Inequality in Majority-Black Census Tracts

The figures presented to this point tell a story of neighborhood disadvantage and spatial disadvantage as of 2000. However, many of the central questions driving the analysis concern change over time. In particular, a central question is whether there has emerged a "new" black middle class experience in the United States, characterized by spatial separation from high-poverty urban neighborhoods. The figures in table 3 respond to this question by showing the relationship between neighborhood disadvantage and spatial disadvantage in predominantly black neighborhoods from 1970 through the latter half of the 2000s.

Trends shown in table 3, which examines neighborhood inequality and spatial inequality in majority-black tracts, indicate that there has been little change in the degree to which black neighborhoods are surrounded by spatial advantage or disadvantage. The proportion of predominantly black neighborhoods that are advantaged and spatially advantaged has remained between 2% and 4% over this period, and the proportion of black neighborhoods bordered by a severely disadvantaged tract also has remained stable:[10] 65% of majority-black tracts shared a border with a severely disadvantaged tract in 1970, and 63% did so in the late 2000s. The same conclusion is true if one isolates the set of advantaged tracts that are predominantly African-American: from 1970 to 2005–9, results not shown in the table indicate that there has been virtually no change in the degree to which these advantaged tracts are surrounded by spatial disadvantage.

These findings lead to a question: Is there any hint of a new black middle-class neighborhood that has emerged over the past 40 years or so, or have black communities remained just as embedded within disadvantaged sections of urban areas over time? The answer is complex. Other than a slight rise in the proportion of advantaged tracts that are surrounded by other advantaged tracts, the trends shown in table 3 indicate that there has been very little overall change in the degree to which relatively advantaged black neighborhoods are surrounded by spatial advantage. However, the raw number of predominantly black tracts has grown over time. As a consequence, there has been substantial growth in the absolute number of advantaged tracts that are surrounded by spatial advan-

[10] The same absence of change is found when the distance decay measure of spatial disadvantage is used.

TABLE 3
NEIGHBORHOOD DISADVANTAGE AND SPATIAL DISADVANTAGE AMONG MAJORITY-BLACK TRACTS FROM 1970 TO 2005–9

	1970	1980	1990	2000	2005–9
Neighborhood advantage and spatial advantage:					
% tracts that are advantaged and surrounded by spatial advantage	3	2	4	4	4
% tracts that are advantaged and surrounded by spatial disadvantage	3	3	3	4	5
% tracts that are disadvantaged and surrounded by spatial advantage	6	6	6	5	6
% tracts that are disadvantaged and surrounded by spatial disadvantage	89	89	86	87	85
Proximity to extreme disadvantage:					
% tracts bordering at least one severely disadvantaged tract	65	67	66	64	63
% advantaged tracts bordering severely disadvantaged tract	11	19	18	15	20
% disadvantaged tracts bordering severely disadvantaged tract	68	70	70	68	67
n	3,397	4,509	5,187	5,809	5,700
% of all U.S. tracts	7	9	10	11	11

NOTE.—Sample is all majority-black census tracts within metropolitan areas, Neighborhood Change Database and American Community Survey.

tage, consistent with the idea that in many places a new "type" of black middle-class neighborhood has emerged.

In 1970, there were only 92 majority-black census tracts in all U.S. metropolitan areas combined that were more advantaged than the average U.S. neighborhood and that were surrounded by similarly advantaged tracts. In 1980, this number rose to 110 tracts but still represented less than 3% of all majority-black tracts. By 1990, the number of predominantly black advantaged tracts surrounded by other advantaged tracts more than doubled to 233 and then remained stable at 222 in 2000 and 220 in 2005–9. The figures since 1990 still represent only 4% of all majority-black urban tracts, but the absolute number of black neighborhoods that are advantaged and surrounded by advantage has grown substantially.

Further, the location of such neighborhoods has spread over time, meaning that this new type of black community has emerged in several urban areas where it did not exist previously. Appendix table A5 lists all 27 metropolitan areas that had at least 50 majority-black census tracts at any point from 1970 to the late 2000s and displays the total number of majority-black tracts along with the number of majority-black tracts that were advantaged and spatially advantaged at each period. In 1970 only 13 metropolitan areas had more than a single black neighborhood that was advantaged and spatially advantaged, compared to 15 metropolitan areas in 1980, 23 in 1990, 25 in 2000, and 26 in 2005–9. In 1970, only

the Chicago and Washington, D.C., metropolitan areas had at least 10 such neighborhoods, but since that time the number of metropolitan areas with at least 10 spatially advantaged black neighborhoods has expanded to include Atlanta, Baltimore, New York, Philadelphia, and Richmond in addition to Chicago and Washington. Thus, even though the proportion of predominantly black neighborhoods that are advantaged and spatially advantaged has remained roughly constant over the past four decades, the presence of such neighborhoods has grown over time and the geographic locations of such neighborhoods have spread beyond the few metropolitan areas where they first emerged. These new black middle-class neighborhoods continue to represent a tiny fraction of all predominantly black neighborhoods, yet they are important because they represent a new feature of the residential landscape in several urban areas across the country.

Trends in Neighborhood and Spatial Inequality among Middle- and Upper-Income Black Households

Results shown previously indicate that when the unit of analysis is majority-black census tracts, analysis of trends over time suggests very little change in the degree of neighborhood inequality and spatial inequality. However, when the unit of analysis is individual households, the results shown in table 4 reveal important change in the average environments of the black middle class over time. From 1970 to 2005–9, the proportion of middle- and upper-income African-American households that live in advantaged neighborhoods surrounded by spatial advantage grew from 12% to 34%, and the proportion living in disadvantaged tracts surrounded by spatial disadvantage dropped from 75% to 47%.[11] If one isolates households living in advantaged tracts, the same pattern of increasing exposure to neighborhood and spatial advantage is present.

Spatial proximity to extreme disadvantage also has declined steadily among the black middle class, as shown in the bottom panel of table 4. The percentage of middle- and upper-income black households living in tracts that share a border with a severely disadvantaged tract dropped from 51% in 1970 to 27% in 2005–9.[12] A roughly linear decline in proximity to severely disadvantaged tracts across the three decades is present among all middle- and upper-income black households and among those living in advantaged and disadvantaged tracts, respectively.

[11] Trends of change are slightly more pronounced for the subset of black families making at least $100,000 per year than for other groups of middle- and upper-income black families. The same trends are found using the distance decay measures of spatial disadvantage, although the overall amount of change is slightly smaller.

[12] Because of differences in the data available at each census, figures from 1970 and 1980 refer to families and figures from 1990 and 2000 refer to households.

TABLE 4
AVERAGE LEVELS OF NEIGHBORHOOD DISADVANTAGE AND SPATIAL DISADVANTAGE AMONG BLACK MIDDLE/UPPER-INCOME HOUSEHOLDS FROM 1970 TO 2005–9

	1970	1980	1990	2000	2005–9
Neighborhood advantage and spatial advantage:					
% in advantaged tracts surrounded by advantaged tracts	12	19	30	31	34
% in advantaged tracts surrounded by disadvantaged tracts	6	6	8	8	10
% in disadvantaged tracts surrounded by advantaged tracts	7	8	8	9	9
% in disadvantaged tracts surrounded by disadvantaged tracts	75	67	55	52	47
Proximity to extreme disadvantage:					
% living in tract that borders at least one severely disadvantaged tract	51	45	37	32	27
% living in advantaged tract that borders at least one severely disadvantaged tract	9	8	7	6	6
% living in disadvantaged tract that borders at least one severely disadvantaged tract	60	57	54	49	44

NOTE.—Sample is all census tracts within metropolitan areas, Neighborhood Change Database and American Community Survey.

Considered alongside the results from table 3, the patterns found in table 4 present a complex picture of change in the residential environments of the black middle class. On the one hand, there has been almost no change in the prevalence of majority-black neighborhoods that are advantaged and surrounded by spatial advantage. On the other hand, there has been substantial growth in the proportion of middle- and upper-income African-American households in areas that are advantaged and spatially separated from highly disadvantaged neighborhoods. These two findings suggest that the changing environments of the new black middle class are attributable not to the emergence of a new type of predominantly black, middle-class neighborhood but rather to advancements made by individual middle-class black households (see also Owens and Wright 1998).

This finding is explored further in an additional analysis, which examines the degree to which two factors—movement out of majority-black neighborhoods and movement into suburban neighborhoods—help explain the patterns of change depicted in table 4. Movement out of majority-black neighborhoods and movement into the suburbs may affect trends of change over time in two ways. First, because nonblack neighborhoods and suburban neighborhoods have lower levels of neighborhood disadvantage and spatial disadvantage, growth in the proportion of middle- and upper-income blacks living in nonblack neighborhoods or in suburban neighborhoods will lead to improvements in the average neighborhood environments of middle- and upper-income black households. Second, declines

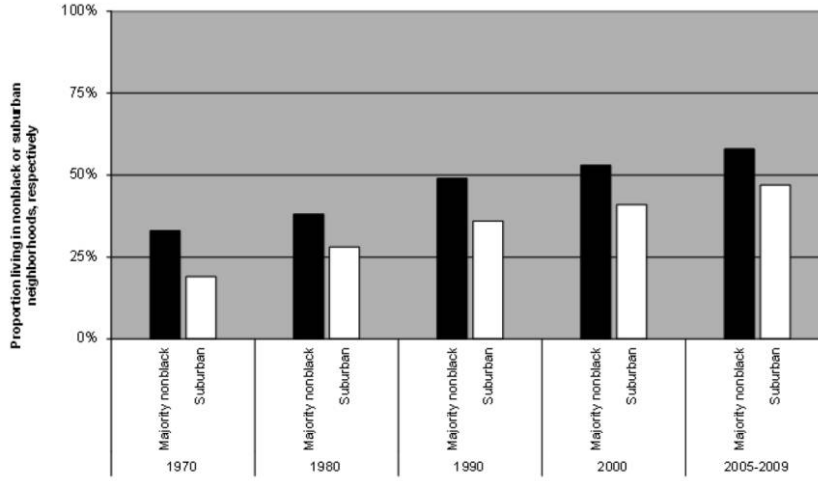

FIG. 4.—Trends of change in the proportion of middle- and upper-income African-American households living in majority-nonblack tracts and suburban tracts, respectively, from 1970 to 2005–9.

over time in the level of neighborhood and spatial disadvantage in nonblack or suburban neighborhoods also will lead to improvements in the average neighborhood environments of middle- and upper-income black households, even if the proportion of such households in nonblack neighborhoods or in suburban neighborhoods remains constant.

Figure 4 confirms that there has been steady growth in the proportion of middle- and upper-income African-Americans living in suburban neighborhoods and in neighborhoods where blacks are not the majority group (see also O'Hare and Frey 1992; Logan and Alba 1995; Logan et al. 1996; Wiese 2005). The proportion of such households living in majority-nonblack neighborhoods has grown from 33% in 1970 to 58% in the late 2000s, and the proportion in suburban neighborhoods has grown from 19% in 1970 to 48% in the late 2000s. Results not shown indicate that there has been no overall change in the level of neighborhood advantage and spatial advantage in nonblack or suburban neighborhoods over time, suggesting that the first mechanism of change has been most important in explaining improvements in the average middle-class African-American household's neighborhood environment.

Patterns of change over time are decomposed further in figure 5. This figure shows the proportion of all middle- and upper-income African-American households living in neighborhoods classified along three dimensions: whether the neighborhood is advantaged and spatially advantaged (labeled "advantaged" in the figure), whether the neighborhood is majority black (labeled "black") or is not ("nonblack"), and whether the

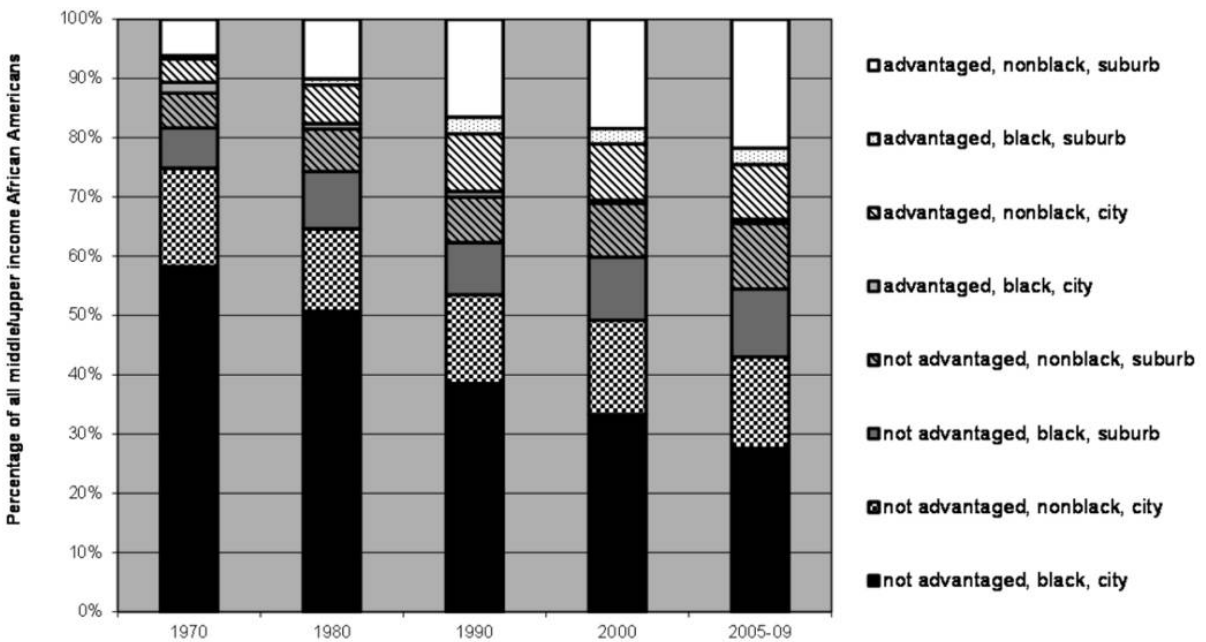

FIG. 5.—Decomposition of the neighborhood environments of middle- and upper-income African-American households from 1970 to 2005–9. "Advantaged" represents tracts that are advantaged and spatially advantaged, "black" represents tracts that are majority black, "nonblack" represents tracts that are not majority black, "city" represents central-city tracts, and "suburb" represents tracts outside of the central city.

neighborhood is in the suburbs ("suburban") or central city ("city"). The classification of metropolitan census tracts by these dimensions leads to eight categories, and the figure displays how the distribution of middle- and upper-income black households has shifted across these categories over time.

In 1970, 58% of such households lived in neighborhoods that were not advantaged and spatially advantaged, that were majority black, and that were located within central cities. But by the late 2000s, only 28% of this segment of African-Americans lived in such neighborhoods. Over this period, the residential environments of the black middle and upper class became much more diverse. There has been growth in the proportion of middle- and upper-income households living in suburban neighborhoods that are not advantaged, regardless of the racial composition of the neighborhood. There also has been growth in the proportion of such households living in advantaged and spatially advantaged tracts within the central city that are not majority black, although only 9% of black middle- and upper-income households lived within such communities by the late 2000s. The largest growth has occurred in neighborhoods that are advantaged and spatially advantaged, that are located in the suburbs, and that are not majority black. The percentage of middle- and upper-income African-Americans living in such communities grew from just 6% in 1970 to about 22% in the late 2000s.[13]

The results presented in figures 4 and 5 can be summarized with a few basic observations. Four decades ago the majority of the black middle and upper class continued to live in neighborhoods that were majority black, that were located in central cities, and that were relatively disadvantaged or else were contiguous with disadvantaged neighborhoods. By the late 2000s, this segment of the black population was spread across a much wider array of communities. There has been substantial growth in the share of middle- and upper-income black households living in communities that are advantaged and spatially advantaged and in which they are not the majority racial group. Some of these communities are in central cities, but a much larger share of middle- and upper-class blacks live in advantaged, nonblack, suburban neighborhoods.

DISCUSSION

This article builds on two important recent arguments about the neighborhood environments of the black middle class from Pattillo (1999) and Lacy (2007). Both of these arguments focus not only on the locational at-

[13] The trends presented in this section pool together all black households earning at least $30,000 per year, but the patterns hold when more refined income categories are used. For instance, if one were to exclude the lower-middle-class group of households making

tainment of middle- and upper-income African-Americans but also on the degree to which these segments of the black population are spatially separated from the high-poverty, racially segregated neighborhoods that are the focus of much of the research on urban poverty. By describing spatial disadvantage as well as neighborhood disadvantage, the analysis provides insight into the role of space in conditioning the experience of middle-class African-American families in a more complete way than is possible with the traditional approach that analyzes neighborhoods as isolated from each other and from the larger urban landscape surrounding them.

The descriptive results based on data from 2000 provide the first national evidence on the relationship between spatial disadvantage and neighborhood disadvantage and show that racial inequality across the nation's urban neighborhoods is amplified by spatial inequality. The vast majority of neighborhoods with a concentration of African-Americans or Hispanics are not only disadvantaged but surrounded by spatial disadvantage in the "extralocal" residential environment. Predominantly Hispanic and predominantly black neighborhoods are similar in terms of their level of neighborhood and spatial disadvantage, but black neighborhoods are unique in the degree to which they are spatially linked with neighborhoods of severe concentrated disadvantage. Almost two out of three majority-black urban census tracts across the country share a border with at least one severely disadvantaged neighborhood, creating in many places a spatial link between majority-black, mixed-income neighborhoods and high-poverty neighborhoods that is less common in predominantly Hispanic neighborhoods and rarely found in majority-white neighborhoods across the nation.

Importantly, racial and ethnic gaps in neighborhood disadvantage and spatial disadvantage are not driven by group-level differences in income. One of the more striking findings from the analysis is that households in the elite black middle class—that is, households making more than $100,000 per year—live in communities that have greater levels of disadvantage, and that are surrounded by communities with greater disadvantage, than even low-income white households making less than $30,000 per year.

These results offer strong support for Pattillo's (1999) argument that middle-class status means something very different for African-Americans than it does for other groups. Pattillo argues that the spatial environments surrounding the black middle class present a range of risks that are not

$30,000–$50,000, the same pattern shown in fig. 4 is present. The proportion of families earning $50,000 or higher in central-city, majority-black neighborhoods that were not advantaged dropped from 51% in 1970 to 21% in 2005–9, and the proportion in advantaged, suburban neighborhoods that were not majority black rose from 10% in 1970 to 32% in 2005–9.

present in the communities of middle-class whites. This argument is supported with ethnographic evidence describing the difficulties that parents in middle-class communities in Chicago face in dealing with poorly functioning institutions like the schools, and in attempting to steer children clear from local gang activity and violence. The evidence presented in the current article suggests that these arguments are relevant across the country, and not just in Chicago, one of the nation's most segregated cities. Middle-class African-American communities and middle-class African-American households remain unique in their residential proximity to areas of extreme disadvantage.

The racial gaps in proximity to urban disadvantage documented in this article demonstrate the need for a more refined approach to the study of "neighborhood effects," in which the appropriate scale at which neighborhoods and the larger environments in which they are embedded are viewed as contingent on theory and evidence specific to the phenomenon or social process under study (Grannis 1998; Sampson et al. 2002; Hipp 2007; Lee et al. 2008; Crowder and South 2011). For example, recent evidence indicates that the scale at which residential segregation is studied can lead to different conclusions about the forces affecting residential segregation by race and ethnicity (Lee et al. 2008; Reardon et al. 2008), and the level of aggregation of community characteristics can lead to different understandings of how community structure relates to crime and perceived disorder (Mears and Bhati 2006; Hipp 2007). Similarly, the appropriate scale for the study of interpersonal interactions may differ from the appropriate scale for the study of daily routines and interaction with local institutions (Grannis 1998; Sastry et al. 2002). The overarching point is that there is no single "neighborhood" that is most salient for all domains of social life. To the extent possible given constraints on data availability, the ways in which the field defines, measures, and analyzes salient dimensions of the neighborhood and the larger residential environment should be guided by strong theory and accumulated evidence.

In the study of black middle-class community life, theoretical arguments developed by Pattillo and Lacy focus on the residential environments surrounding middle-class black families, the boundaries connecting or separating their own communities from higher-poverty communities, and the implications for black families' daily interactions, risks and opportunities, and construction of cultural identities. Drawing on these theoretical arguments, the evidence presented in this article documents persistent racial and ethnic gaps in spatial disadvantage, along with a unique spatial link to areas of extreme disadvantage among black communities. The combination of this theory and evidence suggests the need for a research agenda focusing attention on the importance of the extralocal residential environment in the study of child development, social and economic mobility, and

processes of identity formation for African-Americans.[14] A research agenda focused on the effects of the extralocal neighborhood environment aligns with Pattillo's (2003) argument for a definition of the urban ghetto that extends beyond the neighborhoods where poverty is most severely concentrated to include bordering communities and entire sections of cities that are racially segregated and spatially linked to the most disadvantaged communities within a city. This conception of the ghetto has not yet been incorporated into the literature on neighborhood effects. The stark racial gaps in spatial separation from severe disadvantage documented in this article reinforce Pattillo's argument and highlight the need to consider the ways in which individual neighborhoods are embedded within highly stratified urban landscapes that may influence the risks and opportunities to which individuals are exposed throughout different stages of the life course.

Although racial and ethnic gaps in neighborhood disadvantage and spatial disadvantage appear throughout the results, a second central question addressed in the analysis is whether neighborhood conditions have changed for the black middle class. The answer to this question depends on the unit of analysis. By and large, there is no evidence for the emergence of a "new" majority-black, middle-class neighborhood that is spatially isolated from concentrated disadvantage, but there is strong evidence for the growth of a new residential experience that is increasingly prevalent among middle- and upper-income black individuals and families.

The former claim is based on evidence showing virtually no change, from 1970 to the late 2000s, in the prevalence of predominantly black neighborhoods that are spatially separated from highly disadvantaged communities. Across the full distribution of predominantly black neighborhoods, there has been no change in the average levels of neighborhood and spatial disadvantage, nor is there any evidence of decline in the degree to which relatively advantaged neighborhoods are linked with neighborhoods of severe disadvantage. Despite the lack of change over the full distribution, there has been growth in the number and geographic spread of predominantly black neighborhoods that are advantaged and spatially isolated from severe urban disadvantage. Until the 1990s only a few metropolitan areas contained more than a trivial number of neighborhoods that were advantaged and spatially advantaged, but these neighborhoods had spread to a larger number of urban areas by the 1990s. The growth in the absolute

[14] The beginnings of a research literature focused on the importance of the extralocal neighborhood environment can be found in a small number of studies focusing on crime, health, pollution, residential mobility, and friendships. See, e.g., Sampson et al. (1999), Morenoff, Sampson, and Raudenbush (2001), Morenoff (2003), Crowder and South (2008, 2011), Hipp and Perrin (2009), Crowder and Downey (2010), and Crowder et al. (2011).

number of such neighborhoods and their geographic spread indicate that a new type of African-American neighborhood has emerged in several urban areas across the country. The mere existence of these neighborhoods represents an important change in the demographic landscape in several metropolitan areas around the nation, even if these communities continue to be rare.

Although there has been minimal change in the average middle-class black neighborhood, there has been substantial change in the average residential environments of middle-class black households. Three out of four middle- and upper-income black households lived in disadvantaged neighborhoods surrounded by spatial disadvantage in 1970, compared to less than half in the late 2000s. Half of black middle- and upper-income families lived in a neighborhood sharing a border with a severely disadvantaged neighborhood in 1970, compared to 27% in 2005–9. The gradual shift in the residential environments of the black middle class provides support for Lacy's (2007) contention that to understand the experience of middle-class African-Americans, one has to consider the full range of residential settings in which this segment of the black population has located over time. Lacy's argument was based on fieldwork in suburban Washington, D.C., an area that for several decades has had a wide range of different types of communities in which middle-class blacks live. But the national analysis in this article reveals that Lacy's argument about change over time is relevant across the country. The most common residential environment of middle- and upper-income African-Americans continues to be a disadvantaged neighborhood that is surrounded by other disadvantaged neighborhoods, but a growing proportion of this group now lives in communities that are not spatially linked to areas of high poverty. Results thus confirm the growth of a new black middle-class residential experience that is characterized by spatial separation from severe disadvantage.

These changes have arisen as the black middle and upper classes have transitioned out of central-city, primarily black neighborhoods into a more diverse group of racially mixed residential settings that are increasingly located in suburban areas. As the proportion of middle- and upper-income African-American households in disadvantaged, central-city, majority-black neighborhoods has declined in a linear fashion over time, there has been concurrent growth in the proportion living in advantaged and spatially advantaged neighborhoods that are not majority black and that are located in the suburbs. Movement out of predominantly black neighborhoods has served as a pathway out of highly disadvantaged urban environments for nonpoor African-Americans.

This last point brings this article into conversation with a well-known strand of research on the out-migration of the black middle class from

the traditional black ghettos of central cities. In *The Truly Disadvantaged*, Wilson (1987) argued that black middle-class out-migration was a central factor leading to the growing concentration of poverty in central cities during the 1970s and 1980s. Pattillo (2000) argues that the tendency for middle-class African-Americans to attempt to separate themselves from the core residential areas of the black poor should not be seen as a process unique to the post–civil rights period, but rather as a continuous process that has persisted at least throughout the 20th century. Instead of focusing on the consequences of middle-class black out-migration for the communities left behind, Pattillo places emphasis on the limits of the black middle class to complete the move toward spatial separation from the black poor.

The findings in this study provide an update to the out-migration debate. The migration of middle- and upper-income African-Americans out of primarily black, central-city neighborhoods has continued as an approximately linear trend in the decades since Wilson wrote. The analysis provides evidence revealing a new phase of what Pattillo describes as a long-term, continuous process of black middle-class out-migration. The black middle class is no longer concentrated in relatively disadvantaged, primarily black neighborhoods in central cities. Instead, this segment of the black population is spread across a much more diverse array of residential settings, with an emerging presence in advantaged suburban communities that are not primarily black and that are geographically isolated from severe urban poverty.

What has changed over time is not the phenomenon of middle-class blacks seeking to separate their families from the disadvantages associated with life in the segregated black ghetto but rather the types of destination communities into which middle-class blacks have migrated. One set of implications of these results pertains to the fortunes of black middle-class households. African-American middle-class individuals and households now have new opportunities to enter advantaged communities that are geographically separated from urban poverty, along with the ability to experience any benefits arising from this new advantaged residential position. In combination with these potential benefits, Lacy (2007) documents the new complexities in the ways in which middle- and upper-income black families negotiate residential and social space in managing risks, seeking out opportunities, and constructing communities and identities. As the residential settings of the black middle class become more diverse, the connections between race, class, and space that Lacy identifies are likely to become increasingly salient to the African-American population in urban areas across the country.

The trends documented in this study also have implications for predominantly black middle-class and poor communities. Wilson (1987) argued more than two decades ago that the out-migration of the black middle class

had contributed to a new type of concentrated poverty in black, central-city neighborhoods. As the proportion of middle-class African-Americans living outside of primarily black, central-city neighborhoods has grown over time, this argument remains just as important now as it was then. The demographic processes of class-based migration that Wilson identified in the 1980s have continued, and intensified, in the decades since. Thus, trends in the residential environments of the black middle class portend continuing patterns of concentrated poverty in the majority-black, central-city neighborhoods left behind.

Just more than a decade after Wilson's study, Pattillo (1999) focused attention on the black middle class and argued that middle-class, black communities are unique in the degree to which they are linked with the problems associated with urban areas of extreme poverty. As a growing share of middle- and upper-income African-Americans move out of majority-black communities, Pattillo's arguments about the distinct challenges of economically diverse, majority-black communities have become even more salient. The divergent patterns of steady progress for nonpoor black households and continuing disadvantage for economically mixed black communities can be interpreted in many different ways, but one interpretation is that there may be a growing disconnect between the fortunes of the black middle class and the fortunes of majority-black communities. As the residential destinations of nonpoor African-Americans continue to expand, there may be a weakening link between progress leading toward the reduction of racial inequalities at the family or household level and progress leading toward the reduction of inequality across communities with different racial and ethnic compositions.

This conclusion has important implications for research on the black middle class, as it makes clear the fallacy of conflating the experiences of the African-American population with the trajectories of predominantly black communities. Pattillo's argument about the unique challenges of predominantly black middle-class communities is an argument that could be made in metropolitan areas across the country, and one that is just as salient now as it was several decades ago. As argued by Lacy (2007), however, research on the black middle class can no longer stop at the borders of black communities. In 1970, the experiences of the large majority of middle- and upper-class African-Americans could be captured with studies of disadvantaged communities in central cities. To capture the experiences of the "new" black middle class now requires research conducted in an increasingly diverse set of residential settings, from highly disadvantaged neighborhoods bordering the black ghetto to predominantly white, wealthy suburbs to multiethnic neighborhoods in central cities.

APPENDIX

TABLE A1
FULL MATRIX OF NEIGHBORHOOD DISADVANTAGE AND SPATIAL DISADVANTAGE AMONG MAJORITY-BLACK TRACTS IN 2000

	SPATIAL DISADVANTAGE					
NEIGHBORHOOD DISADVANTAGE	Highly Advantaged	Advantaged	Disadvantaged	Highly Disadvantaged	Severely Disadvantaged	Total
Highly advantaged:						
n	0	17	13	5	2	37
Row %	.00	45.95	35.14	13.51	5.41	100
Cell %	.00	.29	.22	.09	.03	.64
Advantaged:						
n	0	205	173	20	3	401
Row %	.00	51.12	43.14	4.99	.75	100
Cell %	.00	3.53	2.98	.34	.05	6.90
Disadvantaged:						
n	0	233	898	309	36	1,476
Row %	.00	15.79	60.84	20.93	2.44	100
Cell %	.00	4.01	15.46	5.32	.62	25.41
Highly disadvantaged:						
n	0	66	534	902	274	1,776
Row %	.00	3.72	30.07	50.79	15.43	100
Cell %	.00	1.14	9.19	15.53	4.72	30.57
Severely disadvantaged:						
n	1	19	234	744	1,121	2,119
Row %	.05	.90	11.04	35.11	52.90	100
Cell %	.02	.33	4.03	12.81	19.30	36.48

NOTE.—Sample is all majority-black census tracts within metropolitan areas, Neighborhood Change Database ($n = 5{,}809$). Highly advantaged = more than 1 SD below the national average; advantaged = between the national average and 1 SD below the national average; disadvantaged = between the national average and 1 SD above the national average; highly disadvantaged = between 1 and 2 SDs above the national average; severely disadvantaged = more than 2 SDs above the national average. Row % represents the proportion of each tract in each row that falls within each level of spatial advantage/disadvantage. Cell % represents the proportion of all tracts that fall within each cell of the matrix.

TABLE A2

FULL MATRIX OF NEIGHBORHOOD DISADVANTAGE AND SPATIAL DISADVANTAGE AMONG MAJORITY-WHITE TRACTS IN 2000

	SPATIAL DISADVANTAGE					
NEIGHBORHOOD DISADVANTAGE	Highly Advantaged	Advantaged	Disadvantaged	Highly Disadvantaged	Severely Disadvantaged	Total
Highly advantaged:						
n	185	2,277	116	14	1	2,593
Row %	7.13	87.81	4.47	.54	.04	100
Cell %	.45	5.56	.28	.03	.00	6.33
Advantaged:						
n	217	25,172	3,432	141	21	28,983
Row %	.75	86.85	11.84	.49	.07	100
Cell %	.53	61.42	8.37	.34	.05	70.72
Disadvantaged:						
n	3	2,758	4,028	539	31	7,359
Row %	.04	37.48	54.74	7.32	.42	100
Cell %	.01	6.73	9.83	1.32	.08	17.96
Highly disadvantaged:						
n	0	189	847	524	72	1,632
Row %	.00	11.58	51.90	32.11	4.41	100
Cell %	.00	.46	2.07	1.28	.18	3.98
Severely disadvantaged:						
n	1	36	121	189	70	417
Row %	.24	8.63	29.02	45.32	16.79	100
Cell %	.00	.09	.30	.46	.17	1.02

NOTE.—Sample is all majority-white census tracts within metropolitan areas, Neighborhood Change Database (n = 40,984). Highly advantaged = more than 1 SD below the national average; advantaged = between the national average and 1 SD below the national average; disadvantaged = between the national average and 1 SD above the national average; highly disadvantaged = between 1 and 2 SDs above the national average; severely disadvantaged = more than 2 SDs above the national average. Row % represents the proportion of each tract in each row that falls within each level of spatial advantage/disadvantage. Cell % represents the proportion of all tracts that fall within each cell of the matrix.

TABLE A3

FULL MATRIX OF NEIGHBORHOOD DISADVANTAGE AND SPATIAL DISADVANTAGE AMONG MAJORITY-HISPANIC TRACTS IN 2000

	SPATIAL DISADVANTAGE					
NEIGHBORHOOD DISADVANTAGE	Highly Advantaged	Advantaged	Disadvantaged	Highly Disadvantaged	Severely Disadvantaged	Total
Highly advantaged:						
n	0	4	3	0	0	7
Row %	.00	57.14	42.86	.00	.00	100
Cell %	.00	.10	.08	.00	.00	.18
Advantaged:						
n	0	184	208	11	1	404
Row %	.00	45.54	51.49	2.72	.25	100
Cell %	.00	4.67	5.28	.28	.03	10.25
Disadvantaged:						
n	0	234	1,301	233	13	1,781
Row %	.00	13.14	73.05	13.08	.73	100
Cell %	.00	5.94	33.02	5.91	.33	45.20
Highly disadvantaged:						
n	0	23	442	570	85	1,120
Row %	.00	2.05	39.46	50.89	7.59	100
Cell %	.00	.58	11.22	14.47	2.16	28.43
Severely disadvantaged:						
n	0	4	59	216	349	628
Row %	.00	.64	9.39	34.39	55.57	100
Cell %	.00	.10	1.50	5.48	8.86	15.94

NOTE.—Sample is all majority-Hispanic census tracts within metropolitan areas, Neighborhood Change Database (n = 3,940). Highly advantaged = more than 1 SD below the national average; advantaged = between the national average and 1 SD below the national average; disadvantaged = between the national average and 1 SD above the national average; highly disadvantaged = between 1 and 2 SDs above the national average; severely disadvantaged = more than 2 SDs above the national average. Row % represents the proportion of each tract in each row that falls within each level of spatial advantage/disadvantage. Cell % represents the proportion of all tracts that fall within each cell of the matrix.

TABLE A4

FULL MATRIX OF NEIGHBORHOOD DISADVANTAGE AND SPATIAL DISADVANTAGE AMONG RACIALLY/ETHNICALLY MIXED TRACTS IN 2000

	SPATIAL DISADVANTAGE					
NEIGHBORHOOD DISADVANTAGE	Highly Advantaged	Advantaged	Disadvantaged	Highly Disadvantaged	Severely Disadvantaged	Total
Highly advantaged:						
n	1	16	11	3	0	31
Row %	3.23	51.61	35.48	9.68	.00	100
Cell %	.04	.72	.49	.13	.00	1.39
Advantaged:						
n	1	559	165	10	2	737
Row %	.14	75.85	22.39	1.36	.27	100
Cell %	.04	25.09	7.41	.45	.09	33.08
Disadvantaged:						
n	1	222	553	91	14	881
Row %	.11	25.20	62.77	10.33	1.59	100
Cell %	.04	9.96	24.82	4.08	.63	39.54
Highly disadvantaged:						
n	0	36	178	155	19	388
Row %	.00	9.28	45.88	39.95	4.90	100
Cell %	.00	1.62	7.99	6.96	.85	17.41
Severely disadvantaged:						
n	0	12	36	84	59	191
Row %	.00	6.28	18.85	43.98	30.89	100
Cell %	.00	.54	1.62	3.77	2.65	8.57

NOTE.—Sample is all racially/ethnically mixed census tracts within metropolitan areas, Neighborhood Change Database ($n = 2{,}228$). Highly advantaged = more than 1 SD below the national average; advantaged = between the national average and 1 SD below the national average; disadvantaged = between the national average and 1 SD above the national average; highly disadvantaged = between 1 and 2 SDs above the national average; severely disadvantaged = more than 2 SDs above the national average. Row % represents the proportion of each tract in each row that falls within each level of spatial advantage/disadvantage. Cell % represents the proportion of all tracts that fall within each cell of the matrix.

TABLE A5

THE NUMBER OF ADVANTAGED AND SPATIALLY ADVANTAGED BLACK TRACTS IN ALL METROPOLITAN AREAS CONTAINING AT LEAST 50 MAJORITY-BLACK TRACTS IN ANY CENSUS YEAR FROM 1970 TO 2005–9

	1970		1980		1990		2000		2005–9	
	Total	Advantaged	Total	Advantaged	Total	Advantaged	Total	Advantaged	Total	Advantaged
Atlanta, Ga.*	59	2	102	1	150	21	185	13	199	6
Baltimore, Md.*	89	7	110	7	131	15	167	17	169	14
Birmingham, Ala.	31	0	39	0	50	1	62	2	72	1
Chicago, Ill.*	289	15	349	2	393	8	426	12	426	5
Cincinnati, Ohio, Ky., Ind.	27	3	44	2	47	2	61	6	56	2
Cleveland, Lorain, Elyria, Ohio	84	6	114	5	140	8	167	8	169	2
Columbus, Ohio	9	0	27	1	37	2	48	1	52	0
Dallas, Tex.	48	3	61	6	67	1	69	2	66	5
Detroit, Mich.	142	6	219	0	276	2	323	9	326	7
Fort Lauderdale, Fla.	18	0	20	0	33	1	47	1	52	1
Houston, Tex.	79	4	84	8	101	3	99	4	83	2
Jackson, Miss.	25	1	35	1	39	1	50	1	54	1
Kansas City, Mo., Kans.	43	0	51	0	57	0	68	2	73	0
Los Angeles, Long Beach, Calif.	199	2	213	3	155	4	92	3	69	4
Memphis, Tenn., Ark., Miss.*	85	0	81	1	93	1	130	11	138	5
Miami, Fla.	32	0	53	2	65	2	75	0	71	0
Milwaukee, Waukesha, Wisc.	36	0	50	0	68	0	96	0	100	0
New Orleans, La.	79	1	109	4	135	0	153	0	154	1
New York, N.Y.*	359	9	518	14	600	28	615	10	558	35
Newark, N.J.	70	1	102	4	124	9	125	6	120	4
Norfolk, Virginia Beach, Newport News, Va., N.C.	57	1	69	1	73	2	86	2	86	5
Oakland, Calif.	49	0	64	0	60	1	46	1	22	1
Philadelphia, Pa., N.J.*	125	6	161	5	183	13	212	8	218	7
Pittsburgh, Pa.	30	0	37	0	43	0	55	0	56	0
Richmond, Petersburg, Va.*	30	2	51	4	62	8	68	10	72	6
St. Louis, Mo., Ill.	49	0	74	0	88	1	107	1	112	2
Washington, D.C., Md., Va., W.Va.*	156	15	199	27	228	63	262	54	257	67
National total	3,397	92	4,509	110	5,187	233	5,809	222	5,700	220

NOTE.—Total is the number of majority-black neighborhoods in each year, and advantaged is the number of advantaged and spatially advantaged majority-black neighborhoods in each year.

* Contained at least 10 advantaged and spatially advantaged majority-black tracts in any period.

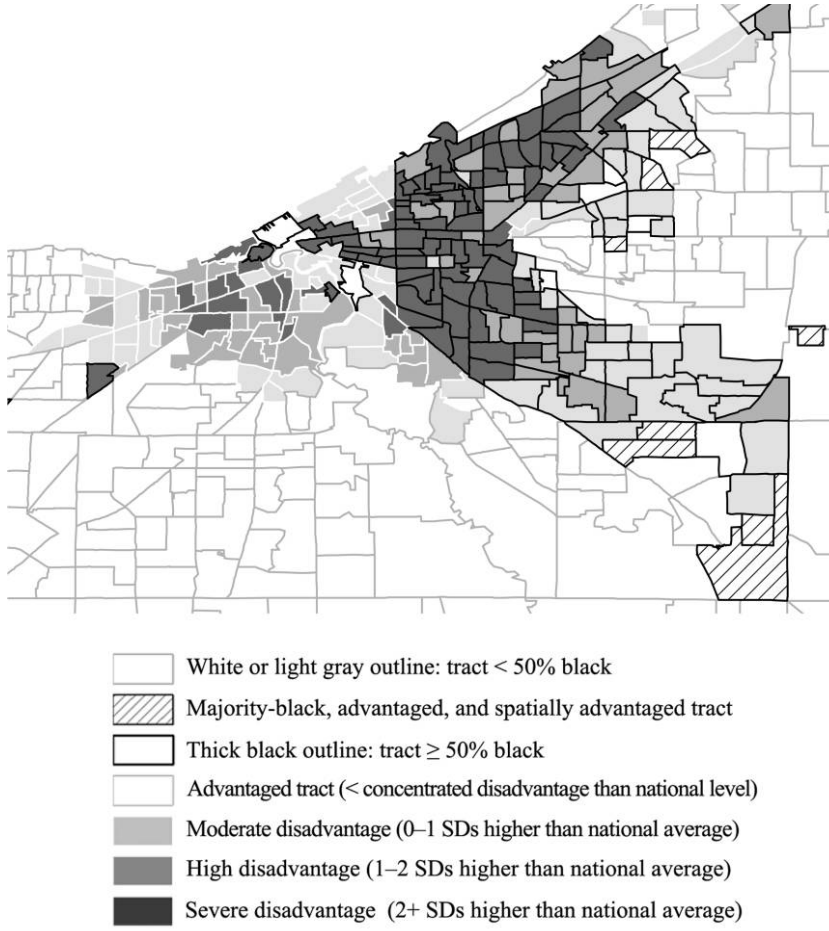

FIG. A1.—Neighborhood disadvantage in and around Cleveland as of 2000. Data are from the Neighborhood Change Database.

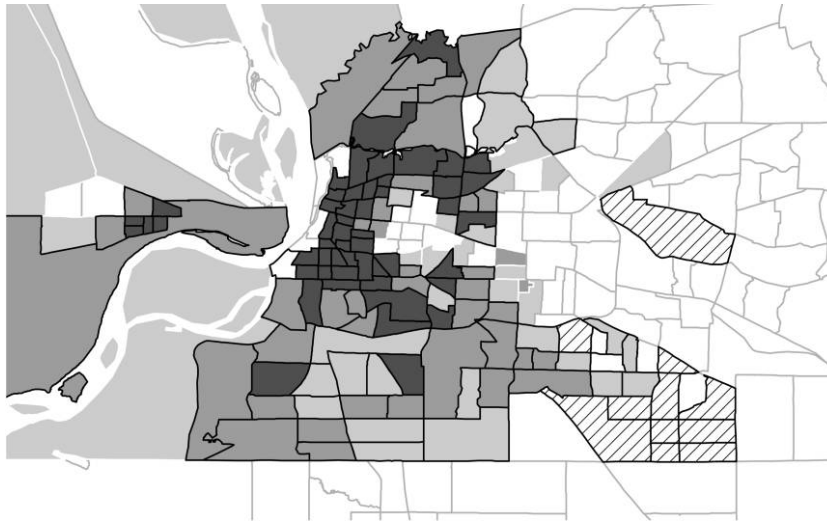

FIG. A2.—Neighborhood disadvantage in and around Memphis as of 2000. Data are from the Neighborhood Change Database (for key, see fig. A1 above).

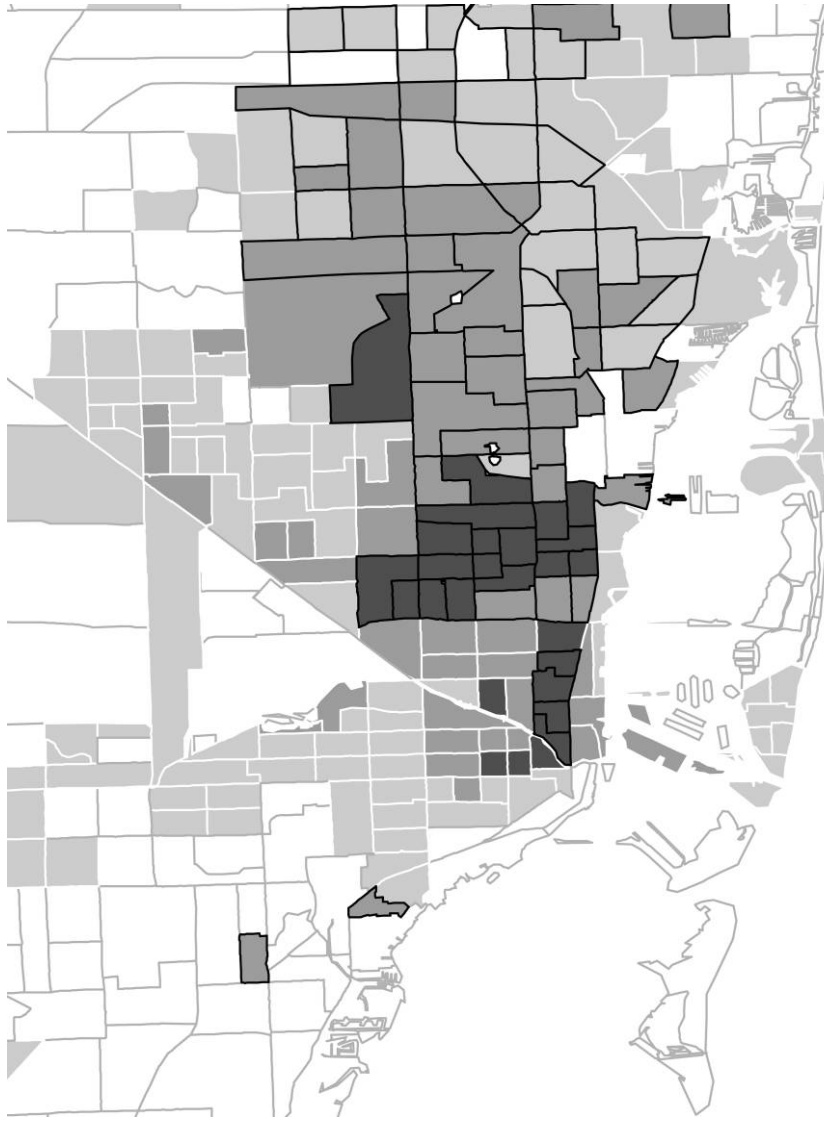

FIG. A3.—Neighborhood disadvantage in and around Miami as of 2000. Data are from the Neighborhood Change Database (for key, see fig. A1 above).

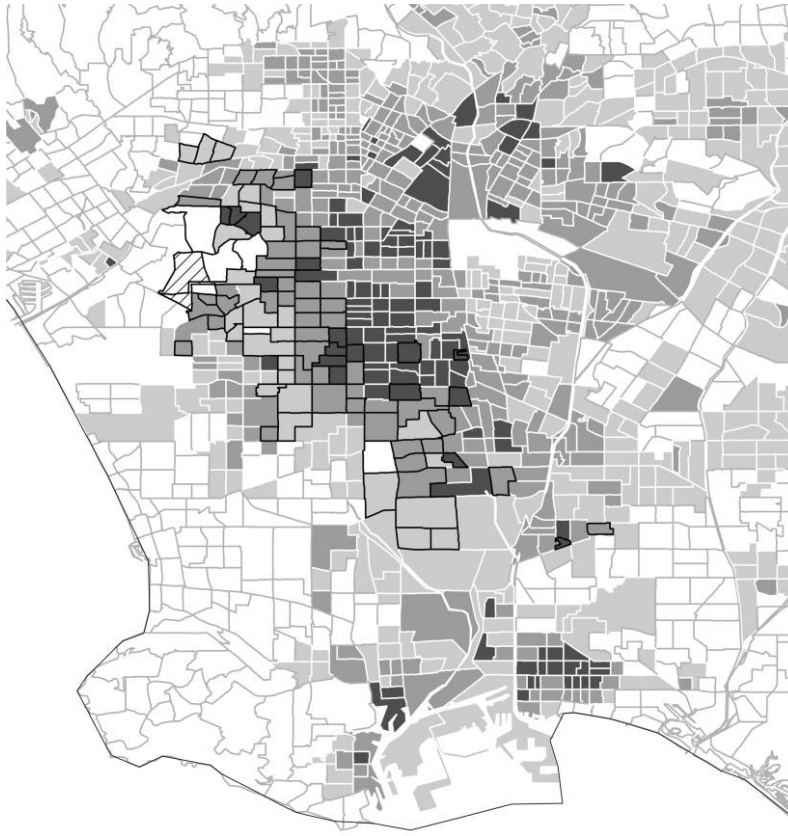

FIG. A4.—Neighborhood disadvantage in and around Los Angeles as of 2000. Data are from the Neighborhood Change Database (for key, see fig. A1 above).

FIG. A5.—Neighborhood disadvantage in and around Richmond, Va., as of 2000. Data are from the Neighborhood Change Database (for key, see fig. A1 above).

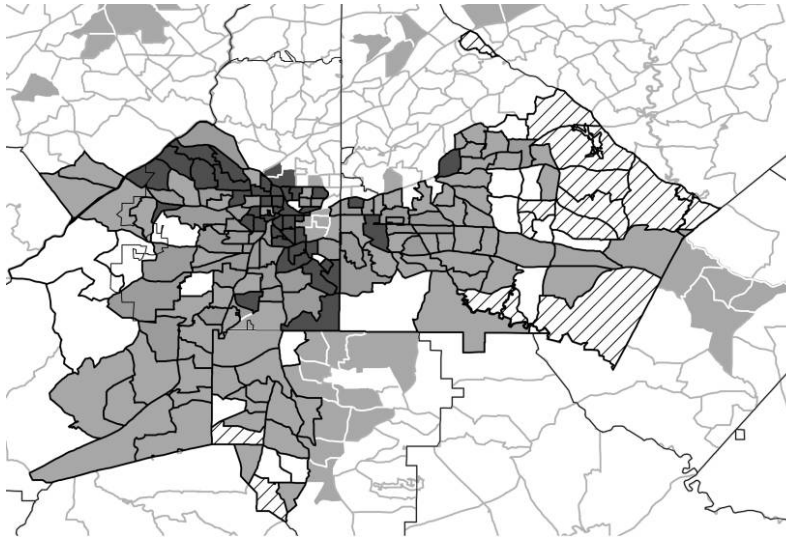

FIG. A6.—Neighborhood disadvantage in and around Atlanta as of 2000. Data are from the Neighborhood Change Database.

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