City & Community

Ethnography, Neighborhood Effects, and the Rising Heterogeneity of Poor Neighborhoods across Cities

Mario L. Small*
Harvard University

Robert A. Manduca
Harvard University

William R. Johnston
RAND Corporation

In the 1980s and 1990s, researchers came to understand poor urban neighborhoods as blighted, depopulated areas, based on important ethnographic observations in a handful of cities. This image helped inform influential theories of social isolation and de-institutionalization. However, few scholars have examined whether those observations were representative of poor neighborhoods nationwide—and whether they are representative today. Based on a descriptive analysis of the largest 100 U.S. metropolitan areas using normalized census tract boundaries, we document an important transformation in the conditions of poor neighborhoods. We find that the depopulation in poor neighborhoods often reported in cities such as Chicago and Baltimore was, in fact, typical across cities in 1990. Today, it is not. Moreover, heterogeneity across cities has increased: The experience of neighborhood poverty is likely to depend more today than in 1990 on the city in question. In fact, the most typically studied cities, such as Chicago, Baltimore, Philadelphia, and Milwaukee, are increasingly *a*typical in this respect. Addressing today's core questions about neighborhood effects, how and why they matter, requires paying far greater attention to heterogeneity, conducting more ethnographic observation in ostensibly unconventional cities, and addressing the historically extreme conditions in a newly unique subset of cities.

INTRODUCTION

In recent years, research on the effects of neighborhood poverty has shifted from addressing the yes-or-no question of whether neighborhoods matter to the more complex questions of when, where, and why neighborhood context affects individual outcomes (Sharkey and Faber 2014; Small and Feldman 2012; see also Sampson, Morenoff, and Gannon-Rowley 2002; Small and Newman 2001). Answering such questions requires paying close attention to ethnographic studies by on-the-ground observers. To truly

*Correspondence should be addressed to Mario L. Small, 33 Kirkland St., Department of Sociology, Cambridge, MA 02138; mariosmall@fas.harvard.edu.

City & Community 17:3 September 2018
doi: 10.1111/cico.12316

understand and properly theorize how neighborhoods matter, researchers must be able to envision what people living in poor neighborhoods are actually experiencing.

But most ethnographies are limited, by necessity, to a few neighborhoods in one or a handful of cities. To know how to interpret their depictions of a given neighborhood, we must know where in the distribution of poor neighborhoods across the country the reported observations lie. To be clear, empirical generalizability is neither the primary nor at times even the appropriate way to assess the quality of an ethnographic study (Small 2009). Instead, the point is that knowing whether a reported neighborhood observation is common or uncommon is important to what those interpreting the observation should infer about other neighborhoods. Consider one of the most commonly reported characteristics of poor neighborhoods in recent decades (and the focus of this paper): their isolation and depopulation. Ethnographers in the late 1980s and early 1990s depicted poor neighborhoods in cities such as Chicago, Baltimore, and Philadelphia as highly depopulated places (Anderson 1990; Klinenberg 1999; Wacquant 2008). As one distinguished observer reported, "[a]bandoned buildings, vacant lots strewn with debris and garbage, broken sidewalks, boarded-up store-front churches, and the charred remains of shops line up miles and miles of decaying neighbourhoods...." (Wacquant 2008:53, based on research in the 1980s). This view helped inform early notions of why neighborhood poverty undermined life chances—for example, researchers came to argue that it "sapped the vitality" of local institutions, eliminating important social buffers (Wilson 1993:23; 1996).

Nevertheless, the extent to which the depictions in these important ethnographies are characteristic of poor neighborhoods nationwide has never been entirely clear. To be sure, these depictions would be expected to differ from those of city neighborhoods in the classic field studies of the urban tradition (Drake and Cayton 1945; Gans 1962; Whyte 1943), since concentrated poverty and depopulation were relatively new phenomena, emerging in the 1970s and 1980s (Wilson 1987, 2012). But already in the late 1990s, scholars in Los Angeles were questioning the relevance of theories developed in the East to the city they were observing (Dear 2001, 2002; Myers 1999). And in recent years, ethnographies have depicted poor neighborhoods in Boston and New York that, rather than being depopulated, are overcrowded (Hyra 2008; Small 2004, 2007). If many poor neighborhoods are not actually depopulated, then theories about why neighborhoods matter based on ethnographies of depopulated areas are likely to account for the mechanisms behind neighborhood effects in only a limited set of cities.

Thus, although research on neighborhood effects has benefited from a number of important ethnographies, we do not yet fully know how to interpret their depictions of the neighborhood poverty experience as one of isolation and depopulation: Was it accurate nationwide in 1990? Is it accurate today? Does the answer to either of these questions depend substantially on the given city?

In what follows, we answer this set of questions based on data on the 100 largest cities in the country. Examining all poor neighborhoods as ethnographers would have observed them, we find that depopulation was, in fact, typical of poor neighborhoods in 1990. Today, however, it is not. Moreover, heterogeneity has increased, such that the experience of neighborhood poverty is likely to depend more on the city in question today than it did in 1990. In fact, the most typically studied cities, such as Baltimore and Chicago, are increasingly *a*typical in this respect, with implications for both how study sites are selected and how neighborhoods are theorized to matter. We propose that addressing today's core questions in neighborhood effects, how and why they matter, requires paying far greater attention to heterogeneity, conducting more ethnographic observation in ostensibly unconventional cities, and addressing the historically extreme conditions in a newly unique subset of cities. We begin by elaborating on our motivation and reviewing the literature.

MOTIVATION AND LITERATURE

Our set of questions is important for theoretical, methodological, and substantive reasons. One reason is theoretical. Knowing whether our collective view of poor neighborhoods is accurate matters because the depictions reported by on-the-ground observers have informed theories about how neighborhoods affect life chances. As Sampson and Raudenbush (1999:603) have argued, "Visual signs of social and physical disorder in public spaces reflect powerfully on our inferences about urban communities."

Research on the effects of neighborhood poverty bears clear witness to this influence. For example, Wilson's view of poor neighborhoods was informed by his on-the-ground observations: "many of the central theoretical arguments of *The Truly Disadvantaged*," he explained, "were inspired . . . by my travels to inner-city neighborhoods in the city of Chicago" (1987:viii). In fact, one of the notable aspects of neighborhood research of the late 1980s and early 1990s was the seriousness with which researchers took the idea of seeing the neighborhoods themselves. When demographers Jargowsky and Bane (1991) sought to determine what poverty rate cutoff would correctly identify the neighborhoods that researchers had described as ghettos, they traveled to urban neighborhoods between 1987 and 1989: "We visited Baltimore, Boston, Detroit, Little Rock, Memphis, Omaha, Philadelphia, San Antonio" and other cities and found that "the 40 percent criterion came very close to identifying areas that looked like ghettos in terms of their housing conditions" (1991:239). Similarly, Wacquant's (2008) influential theory of depopulation as integral to the ghetto was derived from "ethnographic observations . . . on the South Side of Chicago in 1987–1991 . . . " (2008:3).[1]

Such observations often depicted highly depopulated neighborhoods. Wilson observed that neighborhood poverty "sapped the vitality of local business and other institutions, and . . . led to fewer and shabbier movie theatres, bowling alleys, restaurants, public parks and playgrounds, and other recreational facilities" (1993:23). Similarly, in the eight cities listed by Jargowsky and Bane (1991), most tracts with 40% or more persons in poverty in 1990 were, as we show below, depopulated neighborhoods—tracts that had suffered population loss over the preceding two decades. Thus, the authors would likely recognize the vivid picture painted by Anderson of the North Philadelphia neighborhood, as one heads south on Germantown Avenue: "More and more boarded-up buildings appear, along with even more empty lots. In fact, certain areas give the impression of no-man's-lands, with empty dirt or overgrown lots, a few isolated buildings here and there, few cars on the street, and almost no people on the sidewalks. You pass billboards advertising 'forties' (forty-ounce beer), cigarettes, and other kinds of liquor" (1999:25). This picture is remarkably similar to one painted by Wacquant (2008:53): "Walk down 63rd Street in Woodlawn, on the South Side of Chicago . . . along what used to be one of the city's most vibrant commercial strips, and you will discover a lunar landscape replicated across the black ghettos of the United States. . . . Abandoned buildings, vacant lots strewn with debris and garbage, broken sidewalks, boarded-up store-front churches, and the charred remains of shops line up miles and miles of decaying neighbourhoods . . . ” (2008:53). He concluded that “the contemporary ghetto has been afflicted by steady depopulation” (Wacquant 2008:57; see also Klinenberg 1999:266; 2002). This depopulation was a core way in which these neighborhoods differed from the rest of the metropolitan areas in which they were located.

It is therefore not surprising that depopulation has been proposed by many as one of the mechanisms through which neighborhoods matter. It has been tied to low organizational density (Murphy and Wallace 2010; Small and McDermott 2006; Wilson 1993), negative health outcomes (Browning et al. 2006:674-5; Diez Roux and Mair 2010), and a lower sense of community, social organization, and collective efficacy (Bell 2009; Pinard 1963; Sampson 2012; see Jacobs 1961). Depopulation has also been associated with housing prices, as it affects whether residents struggle with housing costs or vacant properties (Mallach 2012). The extent to which these theories help account for the consequences of neighborhood poverty generally depends on the extent to which poor neighborhoods are actually depopulated.

Our second motivation is methodological. It is important to understand how exactly to interpret ethnographic studies that, by necessity, are limited to a single city or a handful of cities. While urban poverty research has benefited from both qualitative and quantitative contributions—moving well beyond the qualitative vs. quantitative debates that once characterized sociology—the literature has not yet taken the next step, which is to agree on how to interpret ethnographic observations systematically. Just about all researchers would agree that one “should not generalize” from single cases, but few have discussed how they should, instead, interpret specific field studies (see Small 2009). For example, it is unclear whether recent ethnographic studies in cities such as Philadelphia or Milwaukee should be seen as representing conditions in neighborhoods that are outliers, toward one or another end of the distribution, or around the statistical mean. In this light, we must note the importance, in the public and scholarly imagination, of the television show *The Wire*, which urbanists have celebrated for its accurate portrayal of urban poverty and used repeatedly in research and instruction (Bennett 2010; Chaddha and Wilson 2010). As an example, consider whether its depiction of Baltimore should be seen as either emblematic of poor neighborhoods or indicative of uniquely harsh conditions: How typical is West Baltimore? We suspect that many researchers would be unable to answer that question with confidence. Taking ethnographic observations seriously as empirical contributions to cumulative knowledge in the study of neighborhood effects requires placing them properly in a distribution, since without this kind of knowledge it is impossible for researchers to know which empirical gaps need to be filled, or for theorists to know how to temper the scope of their propositions.

We stress that neither the intrinsic value nor the core quality of an ethnographic study depend on the position of its observations in a distribution (Small 2009). Single-case studies cannot, strictly speaking, be statistically representative. In fact, ethnographers have at times selected field sites precisely because the latter are unique in some form (Small 2004) or because they represent the intersection of economic, racial, and institutional ghettoization in important ways (Wacquant 2008, 2016; but see Small 2015). Much of the value of ethnographic studies lies in their ability to capture social interaction, meaning systems, institutional processes, spatial dynamics, and other local conditions with empirical rigor. The key here is that social scientists seeking to understand neighborhood poverty as a national phenomenon depend on ethnographic studies, and their reading of such studies ought to be tempered by some clarity about how typical what they are reading is.

Our third motivation is substantive; it is the fact that cities have experienced major transformations over the past 25 years. Though much of the literature's representation of poor neighborhoods is largely based on what they were like in 1990 or earlier, cities have changed dramatically since then. Over the last several decades, many cities have revitalized, as declining crime rates, investment in amenities, and overall economic redevelopment have attracted new cohorts of local and immigrant workers and residents (Clark 2004; Florida 2005; Glaeser et al. 2001; Grogan and Proscio 2002; Lees et al. 2008). In many cities, poor neighborhoods have seen a rise in immigrant populations (see Allard 2008; Brown-Saracino 2009; Glaeser et al. 2012; Jargowsky 2003; Kneebone and Garr 2010; Pattillo 2007). If the departure of the middle class during the 1970s and 1980s helped depopulate poor neighborhoods, it is unclear what population growth across the economic spectrum has done to the profile of poor neighborhoods today.

In addition, several studies have suggested that, with respect to population growth, metropolitan areas over the last two decades have diverged (Boustan and Shertzer 2013; Duranton 2013; Hill et al. 2012).[2] Some cities have witnessed extraordinary growth. For example, the central cities of Raleigh and Las Vegas have expanded by more than 80% over the past two decades. Many, however, have not. The city of Chicago, third largest in the nation, lost more than 200,000 residents between 2000 and 2010.[3] In fact, 24 of the nation's 100 largest central cities experienced net population *loss* between 1990 and 2010. In this context, it is possible that the difference between the present and the past is as much in the degree of heterogeneity across cities as in the conditions of poor neighborhoods in the average city.

Ultimately, poor neighborhoods may be difficult places to live in many different ways: They may be socially isolated, depopulated, and deprived of business and organizations; but they may also be dense, overcrowded, and choked by pollution. Since we do not know whether the common depictions of poor neighborhoods as depopulated apply—or once applied, or continue to apply—to the vast majority, or a large minority, or a handful of cities' disadvantaged areas, we do not know whether theories derived from these depictions about the mechanisms behind neighborhood effects are widely applicable. From theoretical, methodological, and policy perspectives, understanding these basic facts is important.

DATA AND APPROACH

We use data from the Longitudinal Tract Database, which normalizes 1970–2010 census tract data to 2010 boundaries (Logan et al. 2014). Since census tracts are redefined every decade to accommodate the changing population distribution of the United States, it is impossible to study the change in a given set of neighborhoods over time without normalizing data to one consistent set of tract boundaries. We focus on the top 100 largest Metropolitan Statistical Areas (MSAs) and Metropolitan Divisions (MDs) by population in 2010. These metropolitan areas had populations above 600,000 people, and together had a total population of just over 190 million people in 2010.

MSAs are identified by the Office of Management and Budget as contiguous areas encompassing a principal city or cities and the suburbs from which it or they draw commuters (Office of Management and Budget 2009). Certain polycentric metro areas are further divided into Metropolitan Divisions, which identify portions of the MSA that are centered on different principal cities. For example, the Dallas-Fort Worth-Arlington MSA is divided into the Dallas-Plano-Irving Metropolitan Division and the Fort Worth-Arlington Metropolitan Division. We treat these as separate metro areas in our analysis. Consistent with prior work on urban population trajectories (e.g., Hill et al. 2012), we focus on central city tracts, defined as tracts within the principal city or cities of a metro area. About 9% of metropolitan poor tracts in 1990 and 15% in 2010 were outside of principal cities. To account for possible changes in the spatial distribution of poor neighborhoods—most notably, the increasing suburbanization of poverty (Kneebone and Garr 2010)—we also conduct separate analyses on full metropolitan areas, and find similar results. For metropolitan area analyses, see Appendix B.

Our analytic dataset excludes all tracts with fewer than 100 persons in all five decades and all tracts that consist entirely of water. In analyses focusing on a given decade or set of decades, we also exclude tracts with fewer than 100 people in each decade of interest, missing population in any decade of interest, or missing poverty information in the final decade of interest.[4] Our final dataset contains 18,722 tracts in 1970, 18,554 in 1980, 18,862 in 1990, 18,855 in 2000, and 18,813 in 2010. Following convention, we define poor neighborhoods as tracts with poverty rates of at least 40% (Jargowsky 1997, 2003; Quillian 1999). We conducted separate analyses employing a 30% cutoff, and the main results did not change materially (see supplemental results).

Our analytic objective is to capture accurately the trends over time in population loss in poor neighborhoods. Given the many possible ways of understanding that objective, some clarity is warranted. First, we are not examining the possible causal relationship between changes in population density and changes in neighborhood poverty. It is clear that both conditions are the result of larger economic, demographic, and racial-structural factors, and that at least in some periods the conditions have been mutually reinforcing (see Logan 2011; Quillian 1999; Sharkey 2014). Our interest is not causal but descriptive. New research on neighborhood effects has made clear the importance of descriptive analyses that capture the living conditions in poor neighborhoods with precision (e.g., Sharkey and Faber 2014). For this reason, we seek to understand, with respect to depopulation, what those conditions are and whether they have changed.

Second, our analysis does not explore what Quillian (1999) called the dynamic "flows" of people in and out of different levels of poverty. Such analyses require data on not merely neighborhoods and their changes but also individuals and their migration patterns over time. While analyses of this kind have proved useful for understanding neighborhood selection, our interest lies in the logically prior question of whether poor neighborhoods, as they are experienced, resemble today what the ethnographers described in the late 1980s and early 1990s. We are motivated by the need to assess the representativeness of the ethnographic depictions.

Third, finally, our analysis is retrospective in nature. We are interested in the population dynamics that led to conditions in poor neighborhoods as observed at a given time point, not the trajectories that once-poor neighborhoods experienced going forward. While the latter, prospective analysis is also important, it is not a tool to understand equally poor neighborhoods at two time points, and would not address the question of representativeness that animates the present paper. Our goal is to understand the prevalence of depopulation in poor neighborhoods observed in 1990, and compare that to the prevalence in poor neighborhoods observed 20 years later.

The thought experiment we perform is to capture what ethnographers would have witnessed in 1990 if, instead of visiting a handful of neighborhoods in a few core cities, they had traveled to *all* urban poor neighborhoods in the largest 100 metro areas. Would they witness poor neighborhoods that had experienced population loss, as West Baltimore or Woodlawn had? What would they observe if they repeated the exercise in 2010?

This analysis requires selecting all poor neighborhoods at each time point, and tracing the population change over the preceding period in those geographic spaces. The base variable of interest is a dichotomous indicator for whether a neighborhood is presently depopulated:

$$y_{tnc} = \begin{cases} 1 & if\ p_{tnc} < p_{t-lnc}(k) \\ 0 & \text{otherwise} \end{cases}$$

where the raw population p of poor neighborhood n in city c is observed at time t, and compared to its own population at time t-l; t is a decennial census indicator and l is measured in decades. A neighborhood is considered depopulated if its current population is below a threshold, which is a k factor of its earlier population. We will first consider neighborhoods as depopulated if they have experienced at least two consecutive decades of population loss. To understand the severity of the observed depopulation, we vary k in the analyses, though we begin by setting k to 1, which denotes any population loss. Note that because we hold tract geographic boundaries constant over time, changes in population are equivalent to changes in population density.

Our discussion will focus on city rates of depopulation in poor neighborhoods and between-city differences. To temper sensitivity to outliers and avoid overstating the extent of heterogeneity, we primarily report medians and interquartile ranges, rather than means and standard deviations, throughout the study.

FINDINGS

Before presenting the findings, we outline broad demographic changes the cities experienced during this period. For the cities in our sample, the decades between 1990 and 2010 were a period of growth. The median principal city within the 100 largest metropolitan areas had 11.7% more persons in 2010 than in 1990; the median neighborhood, 5.7% more. The median poor neighborhood, however, had lost 9.9% of its residents over this same period, in spite of a temporary increase in the population of such neighborhoods in the 1990s. Poor neighborhoods constituted 9.5% of all tracts in the 100 largest cities in 2010. Thus, the period of interest was one of basic instability amidst overall population decline in poor neighborhoods.

BASIC TRENDS

We begin by examining the conditions of poor neighborhoods in the median city. We describe a neighborhood as depopulated if it experienced two consecutive decades of population loss ($p_{tnc} < p_{t\text{-}1nc} < p_{t\text{-}2nc}$). Setting a minimum threshold of two consecutive decades is consistent with ethnographic observations. The changes that observers in the late 1980s and early 1990s noted had been taking place since at least the 1970s, as the prolonged loss of manufacturing jobs led to the sustained departure of people and businesses from inner city neighborhoods, abandoned buildings, and empty lots (Klinenberg 1999, 2002; Wacquant 2008; Wilson 2012/1987). In 1990, 58.3% of poor neighborhoods in the median city were depopulated, consistent with ethnographic observations. In 2010, however, the figure was only 30.0%. Between 1990 and 2000, a large number of poor neighborhoods had *gained* people over the previous decade; by 2010, much of this growth had on average receded.

It is important to note that about half of the neighborhoods that were poor in one period were not poor in the other, such that ethnographers in the two periods would often be observing different spaces. In the median city, 61.6% of neighborhoods that were poor in 1990 were also poor in 2010; 50.0% of neighborhoods that were poor in 2010 had been poor in 1990. The total—grand, not group—proportions are 55.7% and 52.0%, respectively.

In sum, the depopulation reported in many ethnographies was typical in 1990 and *a*typical in 2010.

HETEROGENEITY

Figure 1 exhibits differences across the largest 100 cities in the extent to which poor neighborhoods were depopulated in 1990 and 2010, respectively. We categorize neighborhoods as depopulated (two consecutive decades of population loss), transitional (population loss in one decade but not the other), and populated (two consecutive decades of population gain). The box plots show the proportion of poor tracts in the 100 largest cities falling into each category. In 1990, the dominant experience was depopulation: The median fraction of poor tracts that were depopulated was 58.3%, well over half.[5] Of the 100 largest cities, the median fraction of transitional poor tracts was 33.3%. And in the median city, no poor tracts in 1990 were populated. In 2010, this was no longer the case: Transitional neighborhoods were the most typical, comprising 41.7% of poor neighborhoods at the median, while the median fraction of depopulated tracts was 30.0% and the median fraction populated was 11.8%. In 2010, then, there was much more heterogeneity across categories: Substantial numbers of neighborhoods in many cities fell into each of the three population categories.

As striking as the rising heterogeneity across population categories was the increasing heterogeneity within each category. In 1990, the interquartile range for populated neighborhoods was just 11.5%. By 2010, that range had increased by a factor of three. The interquartile range for depopulated neighborhoods also increased, from 44.4% in 1990 to 50.5% in 2010, even as the median proportion declined by half. The range of variation for transitional neighborhoods remained roughly constant, but it shrunk as a fraction of the median. These two patterns—rising heterogeneity across population categories, as

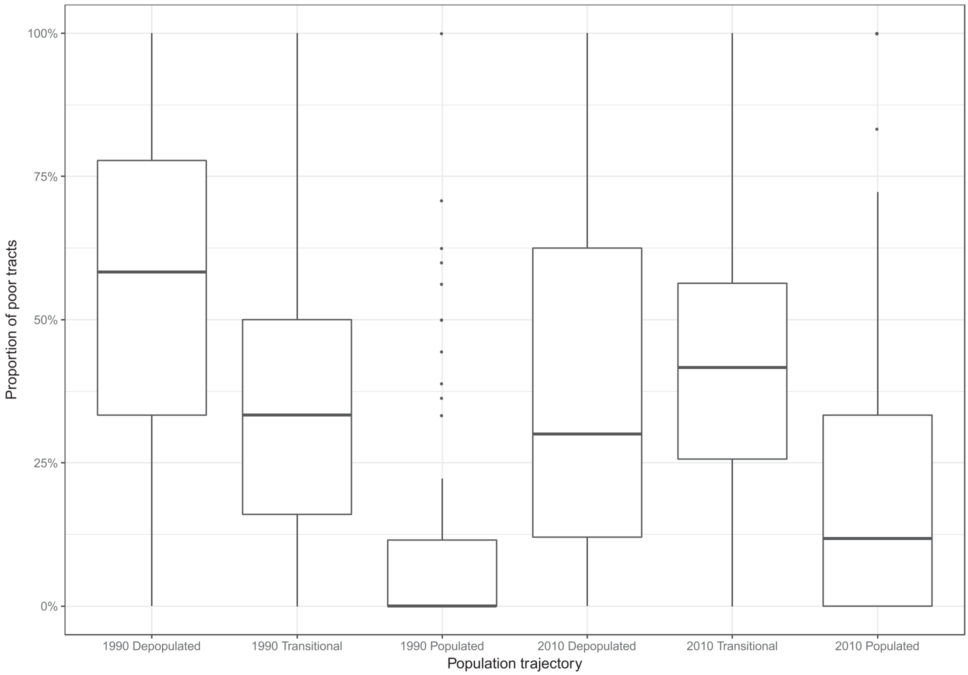

FIG. 1. Proportion of poor tracts depopulated, transitional, and populated in the 100 largest U.S. cities, 1990 and 2010
Source: U.S. decennial census, Longitudinal Tract Database, 1970–2010. Tracts are defined as depopulated if at the year of observation they had experienced two consecutive decades of population loss; transitional if they had experienced one decade of loss and one of growth; and populated if they had experienced two decades of growth. In 1990, in the median city almost 60% of poor neighborhoods were depopulated; in 2010, only 30% were.

indicated by the much larger proportion of transitional and populated poor tracts, and rising heterogeneity across cities in the percentage of tracts falling into each population category—have greatly increased the heterogeneity of poor tracts across categories. In 1990, depopulation was typical; in 2010, no pattern is overwhelmingly typical. Ethnographers in 2010 would witness far more *different* kinds of poor neighborhoods across cities.

As an illustration, consider the cities of Milwaukee, Houston, and Washington, DC. In 1990, the poor neighborhoods in these cities had almost identical population profiles. In each, between 54% and 63% of poor neighborhoods were depopulated, while roughly 40% were transitional and fewer than 10% were populated. By 2010, though, the poor neighborhoods in these cities had diverged sharply from one another. Milwaukee had become even more depopulated: 71% of its poor tracts in 2010 were depopulated, while 19% were transitional and just 9% were populated. In contrast, Washington, DC, was almost entirely a transitional city: 71% of its poor tracts were transitional, while 18% were depopulated and 12% populated. Houston's poor neighborhoods were almost perfectly split between the three categories, with 29% depopulated, 31% populated, and 40% transitional. In 1990, a visitor to these three cities would have likely observed similar patterns of neighborhood poverty in each. In 2010, they could hardly be more different.

The significance of this divergence becomes clear when we consider the cities that have informed how social scientists understand what poor neighborhoods look like. Recall the cities visited by Jargowsky and Bane (1991) in their observations of poor neighborhoods: Baltimore, Boston, Detroit, Little Rock, Memphis, Omaha, Philadelphia, and San Antonio. Note that major recent ethnographic research has been done in Baltimore (Alexander et al. 2014; DeLuca et al. 2016) and Philadelphia (Anderson 1999; Goffman 2014). Consider also Chicago, studied by Klinenberg (1999; 2002), Sampson (2012), Wacquant (2008), Wilson (2012/1987), and others (Chan Tack and Small 2017; Venkatesh 2000). In 1990, in *all* of these cities but Boston, at least 60% of all poor neighborhoods were depopulated. Researchers were right to identify consistencies among these cities, and to speculate that those consistencies were typical of American cities.

But in 2010, the picture in those cities is remarkably different. In *fewer than half* of the cities—Chicago, Baltimore, Detroit, and Memphis—the median poor neighborhood is still depopulated. In Little Rock, Omaha, Philadelphia, San Antonio, and Boston, it is not depopulated; in Boston, it has increased in population over two consecutive decades. Today, the features that observers would consider characteristic of poor neighborhoods would depend on the cities they visited.

MAPPING DEPOPULATED POOR NEIGHBORHOODS

A clearer picture of the national change can be seen in Figure 2, which presents, in U.S. maps, the proportion of poor neighborhoods that are depopulated in each of the largest cities. The top panel shows the 1990 data; the bottom, the 2010 data. The shades of the circles represent the proportion of poor neighborhoods that are depopulated—the darker the shade, the greater the proportion.

The 1990 map makes clear that poor neighborhoods at the time were depopulated across the Northeast, Midwest, South, and Southeast. The major exception to this pattern was California, which had very few depopulated poor neighborhoods. The pattern is particularly notable because a major dissent from canonical urban theory, the Los Angeles school of urbanism, was developed in southern California during this period (Dear 2002).

By 2010, the rates of depopulation in poor neighborhoods had decreased across all regions, with the very notable exception of the Midwest and certain cities of the South. In 1990, California was a notable outlier; in 2010, the Midwest and a few Southern cities are the only parts of the country where change in this measure has proved elusive. The Rustbelt is even more unique than it was as recently as 1990.

The cities with a prevalence of depopulated neighborhoods appear to have high proportions of African American residents living in predominantly black neighborhoods, and many have experienced well-documented difficulties in economic recovery after the nation-wide departure of manufacturing jobs from the central cities. In addition, they have not enjoyed the high immigration rates of cities in the Sunbelt, much of it low-skilled migration that may well have altered the composition of the poor neighborhoods. In fact, many of them, especially in the Rustbelt, appear to be cities that have not grown.

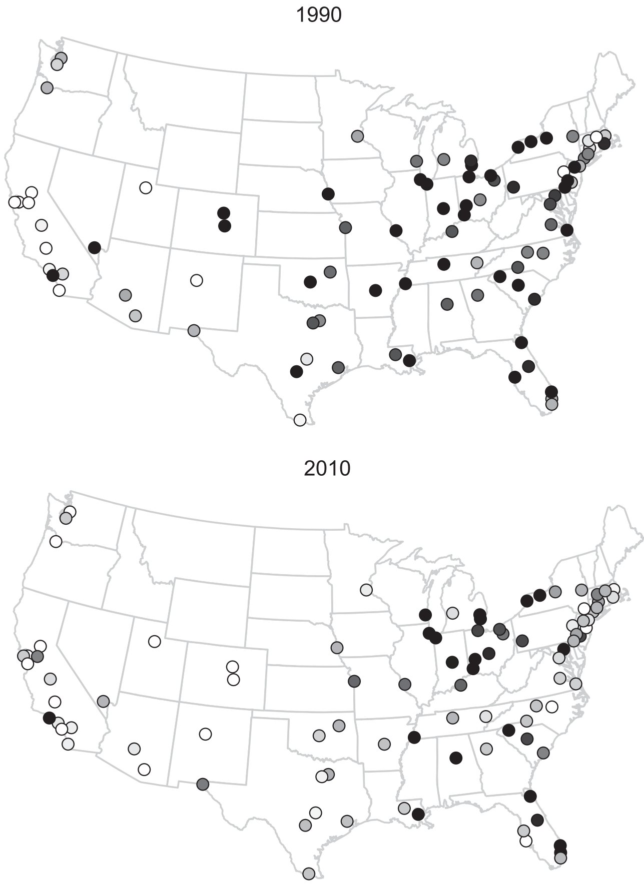

FIG. 2. Proportion of poor tracts that had experienced two consecutive decades of depopulation, 100 largest metros, 1990 and 2010

Note: Darker shade denotes greater proportion of poor neighborhoods depopulated. See Appendix A for precise proportions. *Source*: U.S. decennial census, Longitudinal Tract Database, 1970–2010. Census tracts are identified as depopulated if they experienced two consecutive decades of population loss.

PROBING FURTHER

Where are the depopulated neighborhoods? For a more systematic analysis, we use descriptive regressions to identify the characteristics that most distinguish depopulated from growing neighborhoods. Specifically, we estimate HGLM models of the probability that poor neighborhood n in city c is in one of the three states, depopulated, transitional, or populated, in $t = 1990$ and 2010. The models estimate the equation,

$$y_{tnc} = \beta_{tc0} + \boldsymbol{\beta}_{t1}\mathbf{C_{tn}} + r_{tn}$$

$$\beta_{tc0} = \gamma_{t0} + \boldsymbol{\gamma}_{t1}N + u_{tc}$$

TABLE 1. Median Values of Descriptive HGLM Variables, 1990 and 2010

	1990	2010
City-level variables		
City poverty rate	15.7%	18.5%
City % black	19.8%	22.7%
City % recent immigrants	2.7%	5.2%
City unemployment rate	6.8%	9.0%
City population growth (%)	3.8%	11.8%
City population	404,947	489,921
Neighborhood-level variables—poor tracts		
Tract poverty rate	47.6%	47.3%
Tract % black	62.0%	44.8%
Tract % recent immigrants	2.3%	3.5%
Tract unemployment rate	19.0%	17.9%
N	1,680	1,788

Source: 1970–2010 U.S. Census, with 2010 normalized tract boundaries; 100 largest metros.

where β_{tc0} is a city-level intercept, $\boldsymbol{N}$ is a vector of variables measured at the tract level, $\boldsymbol{C}$ is a vector of variables measured at the city level, and r_{tn} and u_{tc} are error terms at the tract and city levels respectively. All explanatory variables are centered on the grand mean. The sample constitutes all poor tracts in the central cities of the 100 largest metro areas. Consistent with our discussion, these are descriptive models to identify where ethnographers are likely to observe depopulated neighborhoods (not causal models about what produces depopulation over time).

We consider the following city characteristics: proportion African American, proportion recent immigrant (those residing in the U.S. for fewer than 10 years), unemployment rate, size, and population growth (percent change over the previous 20 years). See Table 1. The median values for all of these variables have increased either slightly or moderately between 1990 and 2010; the population growth rate increased by eight percentage points. We also account for the tract's poverty rate, proportion black, proportion recent immigrant, and proportion unemployed, so that our models predict the population state for a poor neighborhood that is at the across-city average for those four variables.

Results from the models are presented in Table 2. The left panel of the 1990 column shows that tracts with more African Americans and fewer immigrants at the time were more likely to be depopulated. The right panel shows that, even after taking these differences into account, cities with more immigrants and greater population growth were less likely to have depopulated neighborhoods. A one percentage point decrease in the proportion of recent immigrants in the city raised the log odds that a neighborhood was depopulated (vs. transitional) by .083. Notably, the poverty level of the city as a whole and the proportion African American as a whole made little difference.

By 2010, some things had changed. The left panel shows that in addition to the proportion black and recent immigrant in a tract, the proportion unemployed is now a significant correlate of depopulation. The right panel shows that, after taking these differences into account, the proportion recent immigrant in the city no longer is statistically significant (though the coefficient is only slightly smaller in magnitude). The overall city growth rate was also more strongly associated with tract population status in 2010 than 1990. In 1990, a one percentage point increase in the city proportion recent immigrant

TABLE 2. HGLM Ordered Logit Coefficients Predicting Log Odds that Poor Tract is Depopulated, Transitional, or Populated

	1990		2010	
Tract poverty rate	−0.32	−0.409	−0.702	−0.764
Tract % black	1.530***	1.480***	1.967***	1.890***
Tract % recent immigrants	−5.192***	−4.215***	−2.555**	−2.087**
Tract unemployment rate	1.012	1.237	2.539***	2.484***
City poverty rate		−0.92		5.119
City % black		−0.298		−0.542
City % recent immigrants		−8.306**		−7.992
City unemployment rate		−0.235		0.115
City population growth (%)		−1.047**		−1.428**
City population (log)		0.15		−0.003
Cutoff for depop. vs. trans.	−2.861***	−2.897***	−2.065***	−2.151***
Cutoff for trans. vs. pop.	−0.165	−0.197	0.593***	0.508***
N	1,677	1,677	1,785	1,785

Source: 1970–2010 U.S. Census, with 2010 normalized tract boundaries; 100 largest metropolitan areas; all poor tracts. Results from HGLM models among central city poor tracts in 1990 and 2010 predicting population trajectory over the previous two decades.

lowered the log odds that a neighborhood was depopulated (vs. transitional) by .083; in 2010, it did so by .080.

Taken together, the results from the HGLM models show that recent immigration was associated with population growth in 1990 but not 2010, while population growth in the city as a whole is essential for the viability of poor neighborhoods. In addition, core neighborhood-level characteristics continue to be important, with unemployment being more so than before.

EXTENT OF DEPOPULATION TODAY

Before concluding, we examine the extent of depopulation in the present, and the degree to which more extreme forms of depopulation, with respect to severity and duration, are concentrated in a narrow subset of cities. We assess eight different indicators of depopulation, varying both k and l. We first consider four different levels of severity, wherein neighborhood n is depopulated if both ($p_{tnc} < p_{t\text{-}1nc} < p_{t\text{-}2nc}$) and ($p_{tnc} < p_{t\text{-}2nc}(k)$), where t is the 2010 census and k is set to 1, 0.9, 0.8, or 0.7. At the extreme, a severely depopulated neighborhood will have lost residents for two consecutive decades and contain less than 70% of its 1990 population. We then consider four different periods of consecutive population loss, wherein the neighborhood n is depopulated if ($p_{tnc} < p_{t\text{-}1nc}$), … or ($p_{tnc} < p_{t\text{-}1nc} < p_{t\text{-}2nc} < p_{t\text{-}3nc} < p_{t\text{-}4nc}$), where t is again the 2010 census. At the extreme, a neighborhood with exceptionally prolonged depopulation will have witnessed four consecutive decades of population loss.

Table 3 exhibits the findings. The top panel shows the proportion of poor neighborhoods that are continuously depopulated at four different levels of severity. The last column shows that, nationally, 20.2% of all poor neighborhoods (within the 100 largest cities) in 2010 had lost population in both the 1990s and the 2000s and had less than 70% of their 1990 population. However, those neighborhoods were highly concentrated:

TABLE 3. Proportion of Poor Tracts that are Depopulated, by Duration and Severity of Depopulation, Central Cities of the 100 Largest Metropolitan Areas, 2010

Severity					
		2010 pop < 1990 pop (k), where k is			
	n	1.0	0.9	0.8	0.7
All	1,793	41.4%	38.7%	30.9%	20.2%
Cities					
25th percentile		12.0%	8.3%	0.0%	0.0%
50th percentile		30.0%	25.0%	13.3%	5.6%
75th percentile		62.5%	59.2%	48.3%	25.0%
N cities with at least 50% poor tracts depopulated		34	31	24	9
Duration					
		Consecutive decades of any population loss			
	n	1	2	3	4
All	1,783	65.4%	41.7%	32.8%	27.8%
Cities					
25th percentile		41.7%	12.7%	0.0%	0.0%
50th percentile		63.1%	32.3%	22.2%	15.5%
75th percentile		83.3%	62.5%	50.0%	40.1%
N cities with at least 50% poor tracts depopulated		64	34	25	16

Source: 1970–2010 U.S. census, with 2010 normalized tract boundaries; central cities in 100 largest metropolitan areas; all tracts that were poor in 2010. In top panel, tract must have lost residents for two consecutive decades. Top and bottom panels will differ slightly in number of tracts because of exclusions if tracts are missing data in particular years. See text.

the across-city median was only 5.6%; the 75th percentile was 25.0%. In fact, only nine cities had a majority of poor neighborhoods that were severely depopulated by that measure. If we set the threshold at 80% of the 1990 population, the figure is 24 cities. The largest cities among these (that also had five or more poor tracts) happen to be among the cities either most studied or most visible in media discussions of urban problems. In descending order, the largest cities are Chicago, St. Louis, Baltimore, Warren (suburban Detroit), Pittsburgh, Cincinnati, Cleveland, Kansas City, Columbus, Detroit proper, and Milwaukee (a full list of cities by severity and duration of depopulation in poor neighborhoods is available in Appendix A). Most of these are Midwest Rustbelt cities with low or negative net population growth.

The bottom panel, which presents the rate of depopulation according to the number of consecutive decades of population loss observed in 2010, paints a similar picture. The most extreme form, four consecutive decades, occurred nationally in 27.8% of all neighborhoods (within the 100 largest cities). This form of depopulation is more prevalent. In 16 cities, the majority of poor neighborhoods in 2010 had lost residents for four straight decades; in 25 cities, for three straight decades. Among these, the largest cities (among those with five or more poor tracts) are the same as above, except that Kansas City and Milwaukee drop off the list while Indianapolis and Jacksonville are added. (See Appendix A for full list.)

In all, the picture is one in which poor neighborhoods in Midwestern (but not necessarily in Northeastern) Rustbelt cities continued the population decline that most cities were facing in the 1970s and 1980s, while much of the rest of the country changed course. At the same time, the levels of depopulation faced by poor neighborhoods in some cities are shockingly high and long-lasting. In cities such as St. Louis, Baltimore, Detroit, Memphis, and Birmingham, most poor neighborhoods have less than 70% of their 1990 population, even though 1990 was already a point of substantial population loss. In cities such as Chicago, St. Louis, Baltimore, Pittsburgh, and Columbus, essentially half of poor neighborhoods are now places with four consecutive decades of population loss.

DISCUSSION AND CONCLUSIONS

Research on neighborhood poverty has benefited from a diversity of disciplinary and methodological perspectives. Ethnographic research by on-the-ground observers has been essential in several ways, including the production of valuable depictions of spaces that many social scientists have not personally experienced, and the generation of important ideas about the mechanisms through which neighborhood poverty is likely to affect life chances. This work has become especially important in light of the most recent work on neighborhood effects, wherein a consensus is emerging that understanding when, how, and why neighborhoods matter—and taking heterogeneity both within and across poor neighborhoods seriously—is important (Chetty et al. 2016; Sharkey and Faber 2014; Small and Feldman 2012; Wodtke et al. 2011). In this multi-disciplinary endeavor, a crucial role of neighborhood demography is to assess the representativeness of observations made through neighborhood ethnography. Our assessment suggests that both how ethnographic observations are interpreted and how neighborhoods are theorized to matter may need revaluation.

We have shown that poor neighborhoods in 2010 were generally less depopulated than poor neighborhoods in 1990. Most importantly, heterogeneity has increased, and whether poor neighborhoods have experienced more than a decade of depopulation depends, more than it did in 1990, on the city in which the neighborhood is located. The field observations of the late 1980s and early 1990s accurately captured most poor neighborhoods at the time—not only in the heavily studied cities such as Chicago, New York, and Baltimore, but also in most large cities across the country. The major exception was California, where few poor neighborhoods were also depopulated. It is thus telling that the most notable dissent from dominant theories of urban poverty in the 1990s was the Los Angeles school, developed based on studies of Southern California (Dear, 2002). As a contributor to that school noted, "Much urban theory and policy, coming out of Midwestern- or Eastern-based analyses, is concerned with how a skills/jobs mismatch has led to increasing unemployment of working-class black men who are left behind in deindustrialized inner cities. This framework is stretched to its limits when it is applied to major immigrant-receiving metropolitan areas such as Los Angeles or New York" (Myers 1999:921).

In 2010, depopulation is no longer characteristic of poor neighborhoods in the United States. Depopulated neighborhoods remain typical in only a minority of large cities, as most American cities have diverged from these patterns, partly due to how deindustrialization and boom-and-bust cycles have affected different cities differently. Today, the most serious forms of depopulation are typical in Midwestern cities with declining overall populations and low proportions of new immigrants, places that have been slow to recover and repopulate as their economies have lost manufacturing jobs. In some of these cities, the levels of depopulation in poor neighborhoods may be unprecedented in the post-war period.

These findings have methodological, theoretical, and substantive implications. First, whereas ethnographers 25 years ago did not need to be overly concerned about which cities they studied, today the selection of the city is a core methodological decision that will strongly influence what they observe and conclude. Today, ethnographers must choose deliberately and infer cautiously. This sensitivity is especially important because many of the universities whose graduate students and faculty have studied urban neighborhoods in recent years are located in or near Chicago, Milwaukee, Baltimore, Detroit, Philadelphia, and several mid-sized Midwestern cities. The selection bias induced by the practical considerations of proximity and feasibility has greater consequences for the collective understanding of poor neighborhoods than it did in the past.

This bias is especially noteworthy because it happens to have been reinforced in recent years by media representations. The long-running and frequently-discussed television show *The Wire*, filmed in Baltimore, seemed to represent the blight in poor neighborhoods so accurately that many scholars have used it in instruction (Bennett, 2010). In the last several years, high-profile police brutality cases have led to especially large riots in Ferguson (Davey and Fernandez 2014), a suburb of St. Louis, and Baltimore (Victor 2015). Chicago's recent uptick in violent crime has caused alarm and political controversy (Fessenden and Park 2016). These cases have brought hundreds of journalists and television reporters—and their cameras—to the cities, creating powerful pictures about what neighborhood poverty looks like. But note that Chicago, St. Louis, and Baltimore are the three largest cities with unusually high proportions of depopulated poor neighborhoods. The pictures depicted in these cities are real, important, and deserving of continued scholarly attention; they are also increasingly unrepresentative.

Theoretically, our findings call attention to the importance of more refined study of the mechanisms through which neighborhood poverty affects life chances. Researchers have long called for work on the mechanisms through which neighborhoods matter (Sampson et al. 2002; Sharkey and Faber 2014; Small and Newman 2001). In recent years, the fielding of the Moving to Opportunity experiments and the availability of large-scale tax data have dramatically advanced the ability of research to document the causal impact of neighborhood poverty on numerous outcomes (Chetty et al. 2016). At the same time, systematic research on mechanisms appears to have lagged behind. Our findings suggest that such research should seriously consider the possibility of heterogeneity, wherein neighborhood poverty in different cities likely affects people through different mechanisms. In cities such as New York, where many poor neighborhoods today are overcrowded, many of the processes are likely to differ from those in places whose poor neighborhoods are highly depopulated, such as Baltimore, Detroit, or St. Louis. For example, cities with exceptionally dense poor neighborhoods may experience substantially different conditions associated with congestion and pollution, such as respiratory problems and other negative health outcomes. In central Harlem, one of the most densely populated poor neighborhoods in the country, somewhere between a quarter and a third of children have been estimated to suffer from asthma (Lite 2008). It may be the case that, over the past 25 years, more of the effect for outcomes that depend on the built environment, infrastructure, and population density has come to depend on the particular city in question.

Substantively, the rising heterogeneity we have documented means that the experience of neighborhood poverty today is likely to be very different in different cities. The cities with the most extreme forms of depopulation have poor neighborhoods with levels of population loss that are likely historically unprecedented, at least in the postwar period. Scholars and commentators have paid great attention to Detroit and New Orleans, where depopulation has happened on such massive scale at the *city* level that it has become impossible to ignore. But the poor neighborhoods in Chicago, Baltimore, St. Louis, Memphis, Pittsburgh, and Birmingham actually resemble those of Detroit and New Orleans; they are places riddled with empty lots and boarded up housing, and facing severe levels of underinvestment. A child born in poverty in such neighborhoods could well expect dramatically worse health and wellbeing outcomes than one born in equally poor places in New York or Los Angeles. In the midst of broad-stroke views of neighborhood poverty, it has been easy to ignore that conditions in the most severe cases may well be direr than they were 25 years ago. The extraordinary severity of neighborhood poverty in such places deserves focus.

Nevertheless, we note that our conclusions are tempered by the natural limitations in our analysis. First, given our guiding question, our focus was purposely descriptive and at the level of the city. We insist that analytically descriptive analyses of this kind are essential to the scientific enterprise. Still, deeper analyses of within-city differences, of neighborhood-level dynamic change, and of the extent to which factors at both the neighborhood and city levels have a causal effect on depopulation remain important in future work. Second, although we believe that a focus on depopulation is essential given the large amount of qualitative and quantitative evidence for its potential consequences, depopulation is but one condition on which poor neighborhoods may vary. We specifically note that we have only documented an increase in between-city heterogeneity in the extent to which poor neighborhoods are depopulated. Our findings must be complemented by work that suggests convergence, rather than divergence, in other variables. For example, the secular declines in violence and in the presence of manufacturing jobs probably converge, rather than diverge, across cities. Finally, many of the variables likely to function as mechanisms linking poverty and life outcomes are probably not merely demographic in nature but also, as depopulation is, related to infrastructure, organizational capacity, and other factors. Identifying alternative sources of data seems important. Poor neighborhoods in our largest cities appear to be in a period of transition, and refining theories about neighborhood processes based on up-to-date observations across different kinds of cities remains essential.

Acknowledgments

We thank Tara García Matthewson, Mary Pattillo, Robert Sampson, and members of the Urban Data Lab workshop and the Harvard Inequality Seminar Series for comments and criticisms. We thank the Harvard Project on Race, Class, and Cumulative Adversity, at the Hutchins Center, for generous support.

Notes

[1]We note that there has been a debate over the use of the term “ghetto” in the literature (Small 2007, 2008). Some researchers use the term to refer to a neighborhood that meets a poverty threshold (Jargowsky 1997); others argue that the ghetto is an institution, of which exclusion and segregation are a core component

(Wacquant 2008). Our analysis does not wade into that debate, and it is focused primarily on poor neighborhoods and depopulation.

[2]Researchers have traced this divergence across cities to multiple factors. One factor is differences in regional economic profiles and histories, as the legacy of manufacturing-centric economies has been shown to have slowed regional development in parts of the Northeast and Midwest, whereas many metropolitan areas on the coasts and those containing large universities are considered to be growing thanks to emerging technological industries (Kodrzycki and Munoz 2015; Manyika et al. 2015; Moretti 2012). A second factor is differential immigration. For example, in New York immigration was responsible for the shift from depopulation during the 1970s to consistent growth in subsequent decades, resulting in an all-time population high by 2000 (Vigdor 2014). Over the past 20 years, immigration has primarily centered on cities in West and Southwest as many immigrants have gravitated to metropolitan areas with job opportunities, thus creating complementary patterns of economic expansion and population growth (Vigdor 2013).

[3]See http://www.cityofchicago.org/content/dam/city/depts/zlup/Zoning˙Main˙Page/Publications/Census˙2010˙Community˙Area˙Profiles/Census˙2010˙and˙2000˙CA˙Populations.pdf. Accessed July 27, 2016.

[4]Three hundred and eighteen tracts are dropped because they consist entirely of water, and 288 further tracts are dropped due to low or missing population in all five decades. This leaves a base sample of 18,905 tracts in the central cities of the 100 largest metros. Another 183 tracts are dropped due to missing poverty information or population in 1970, 351 in 1980, 43 in 1990, 50 in 2000, and 92 in 2010. Apart from these tracts, 904 further tracts have fewer than 100 people in 1970, 285 in 1980, 140 in 1990, 81 in 2000, and 25 in 2010.

[5]Note that because the order of cities is different for the three different population statuses, the median proportions reported here do not sum to one.

REFERENCES

Alexander, Karl, Doris Entwisle, and Linda Olson. 2014. *The Long Shadow*. New York: Russell Sage Foundation.

Allard, Scott W. 2008. *Out of Reach*. New Haven, CT: Yale University Press.

Anderson, Elijah. 1990. *Streetwise*. Chicago, IL: University of Chicaago Press.

———. 1999. *Code of the Street*. New York, NY: Norton.

Bell, Shannon E. 2009. “There Ain’t no Bond in Town Like There Used to be”: The Destruction of Social Capital in the West Virginia Coalfields. *Sociological Forum* 24(3):631–57. https://doi.org/10.1111/j.1573-7861.01123.x

Bennett, Drake. 2010. “This Will be on the Midterm. You Feel Me?” *Slate*, March 24.

Boustan, Leah, and Allison Shertzer. 2013. Population Trends as a Counterweight to Central City Decline, 1950–2000. *Demography* 50(1):125–47. https://doi.org/10.1007/s13524-012-0137-5

Brown-Saracino, Japonica. 2009. *A Neighborhood that Never Changes*. Chicago, IL: University of Chicago Press.

Browning, Christopher R., Danielle Wallace, Seth L. Feinberg, and Kathleen A. Cagney. 2006. “Neighborhood Social Processes, Physical Conditions, and Disaster-related Mortality: The Case of the 1995 Chicago Heat Wave.” *American Sociological Review* 71(4):661–78. https://doi.org/10.1177/000312240607100407

Chaddha, Anmol, and William Julius Wilson. 2010. Why We’re Teaching ‘The Wire’ at Harvard. *Washington Post*, September 12.

Chan Tack, Anjanette, and Mario L. Small. 2017. “Making Friends in Violent Neighborhoods.” *Sociological Science* 4:224–48.

Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. 2016. “The Long-term Effects of Exposure to Better Neighborhoods: New Evidence from the Moving to Opportunity Experiment.” *American Economic Review* 106(4):855–902.

http://www.cityofchicago.org/city/en/depts/dcd/supp˙info/large-lot-program.html [Accessed 12 September 2016].

http://www.cityofyoungstownoh.com/about˙youngstown/youngstown˙2010/vision˙files/vision.aspx [Accessed 12 September 2016].

Clark, Terry Nichols. 2004. “Urban Amenities: Lakes, Opera, and Bars: Do They Drive Development?” In Terry Nichols Clark (ed.), *The City as an Entertainment Machine*, pp. 103–140. Bingley, UK: Emerald.

Davey, Monica, and Manny Fernandez. 2014. Security in Ferguson is Tightened After Night of Unrest. *New York Times*, November 25.

Dear, Michael. 2001. *From Chicago to Los Angeles*. Thousand Oaks, CA: SAGE Publications.

———. 2002. "Los Angeles and the Chicago School: Invitation to a Debate." *City & Community* 1(1):5–32.

DeLuca, Stefanie, Susan Clampet-Lundquist, and Kathryn Edin. 2016. *Coming of Age in the Other America*. New York: Russell Sage Foundation.

Diez Roux, Ana V., and Christina Mair. 2010. "Neighborhoods and Health." *Annals of the New York Academy of Sciences* 1186(1):125–45. https://doi.org/10.1111/j.1749-6632.2009.05333.x

Drake, St. Clair, and Horace Cayton. 1945. *Black Metropolis*. Chicago, IL: University of Chicago Press.

Duranton, Gilles. 2013. "The Growth of Metropolitan Areas in the United States." In Susan M. Wachter and Kimberly A. Zeuli (eds.), *Revitalizing American Cities*, pp. 26–44. Philadelphia, PA: University of Pennsylvania Press.

Fessenden, Ford, and Haeyoun Park. 2016. Chicago's Murder Problem. *New York Times*, May 27.

Florida, Richard. 2005. *Cities and the Creative Class*. New York, NY: Routledge.

Gans, Herbert. 1962. *The Urban Villagers*. New York, NY: The Free Press.

Glaeser, Edward L., Joshua D. Gottlieb, and Kristina Tobio. 2012. *Housing Booms and City Centers. NBER Working Paper Series* (Vol. 53). https://doi.org/10.1017/CBO9781107415324.004

———., Jed Kolko, and Albert Saiz. 2001. "Consumer City." *Journal of Economic Geography* 1(1):27–50. Retrieved from https://doi.org/10.1093/jeg/1.1.27

Goffman, Alice. 2014. *On the Run*. Chicago, IL: University of Chicago Press.

Grogan, Paul S., and Tony Proscio. 2002. *Comeback Cities*, 2nd edition. Boulder, CO: Westview Press.

Hill, Edward W., Harold L. Wolman, Katherine Kowalczyk, and Travis St. Clair. 2012. "Forces Affecting City Population Growth or Decline: The Effects of Interregional and Inter-municipal Competition." In Alan Mallach (ed.), *Rebuilding America's Legacy Cities*, pp. 31–79. New York, NY: American Assembly.

Hyra, Derek. 2008. *The New Urban Renewal*. Chicago, IL: University of Chicago Press.

Jacobs, Jane. 1961. *The Death and Life of Great American Cities*. New York, NY: Vintage Books.

Jargowsky, Paul A. 1997. *Poverty and Place: Ghettos, Barrios, and the American City*. New York, NY: Russell Sage Foundation.

———. 2003. *Stunning Progress, Hidden Problems*. Research report. https://www.brookings.edu/research/stunning-progress-hidden-problems-the-dramatic-decline-of-concentrated-poverty-in-the-1990s/ [Accessed 14 March 2017].

———., and Mary Jo Bane. 1991. "Ghetto Poverty in the United States, 1970–80." In Christopher Jencks and Paul E. Peterson (eds.), *The Urban Underclass*, pp. 235–73. Washington, DC: Brookings Institution Press.

Klinenberg, Eric. 1999. "Denaturalizing Disaster: A Social Autopsy of the 1995 Chicago Heat Wave." *Theory and Society* 28(2):239–95.

———. 2002. *Heatwave*. Chicago, IL: University of Chicago Press.

Kneebone, Elizabeth. and Emily Garr. 2010. *The Suburbanization of Poverty*. Washington, DC: The Brookings Institution.

Kodrzycki, Yolanda K., and Ana Patricia Munoz. 2015. "Economic Distress and Resurgence in U.S. Central cities: Concepts, Causes, and Policy Levers." *Economic Development Quarterly* 29(2):113–34. https://doi.org/10.1177/0891242414565696

https://www.largelots.org/ [Accessed 12 September 2016].

Lees, Loretta, Tom Slater, and Elvin Wyly. 2008. *Gentrification*. New York, NY: Routledge.

Lite, Jordan. 2008. Asthma Treatment Program Helping Harlem Kids Breathe Easier. *New York Daily News*, April 28.

Logan, John R. 2011. *Separate and Unequal*. New York, NY: Russell Sage Foundation.

———., Zengwang Xu, and Brian J. Stults. 2014. "Interpolating U.S. Decennial Census Tract Data from as Early as 1970 to 2010: A Longitudinal Tract Database." *The Professional Geographer* June 2015:1–9. https://doi.org/10.1080/00330124.2014.905156

Mallach, Alan. 2012. "Depopulation, Market Collapse and Property Abandonment: Surplus Land and Buildings in Legacy Cities." In Alan Mallach (ed.), *Rebuilding America's Legacy Cities: New Directions for the Industrial Heartland*, pp. 85–110. New York, NY: The American Assembly.

Manyika, James, Sree Ramaswamy, Somesh Khanna, Hugo Sarrazin, Gary Pinkus, Guru Sethupathy, and Andrew Yaffe. 2015. *Digital America*. Report. http://www.mckinsey.com/industries/high-tech/our-insights/digital-america-a-tale-of-the-haves-and-have-mores [Accessed 14 March 2017].

Massey, Douglas S., and Nancy A. Denton. 1993. *American Apartheid*. Cambridge, MA: Harvard University Press.

Moretti, Enrico. 2012. *The New Geography of Jobs*. Boston, MA: Houghton Mifflin Harcourt.
Murphy, Alexandra K., and Danielle Wallace. 2010. "Opportunities for Making Ends Meet and Upward Mobility: Differences in Organizational Deprivation Across Urban and Suburban Poor Neighborhoods." *Social Science Quarterly* 91(5):1164–186. https://doi.org/10.1111/j.1540-6237.2010.00726.x
Myers, Dowell. 1999. "Demographic Dynamism and Metropolitan Change: Comparing Los Angeles, New York, Chicago, and Washington, DC." *Housing Policy Debate* 10(4):919–54.
Office of Management and Budget. 2009. *Metropolitan and Micropolitan Statistical Areas and Components*. Washington, DC: U.S. Office of Management and Budget.
Pattillo, Mary. 2007. *Black on the Block*. Chicago, IL: University of Chicago Press.
Pinard, Maurice. 1963. "Structural Attachments and Political Support in Urban Politics: The Case of Fluoridation Referendums." *American Journal of Sociology* 68(5):513–26.
Quillian, Lincoln. 1999. "Migration Patterns and the Growth of High-poverty Neighborhoods, 1970–1990." *American Journal of Sociology* 105(1):1–37.
Sampson, Robert J. 2012. *Great American City*. Chicago, IL: University of Chicago Press.
———., and Stephen W. Raudenbush. 1999. "Systematic Social Observation of Public Spaces: A New Look at Disorder in Urban Neighborhoods." *American Journal of Sociology* 105(3):603–51.
———., Jeffrey D. Morenoff, and Thomas Gannon-Rowley. 2002. "Assessing "Neighborhood Effects": Social Processes and New Directions in Research." *Annual Review of Sociology* 28(1):443–78. https://doi.org/10.1146/annurev.soc.28.110601.141114
Sharkey, Patrick. 2014. "Spatial Segmentation and the Black Middle Class." *American Journal of Sociology* 119(4):903–54.
———., and Jacob W. Faber. 2014. "Where, When, Why, and for Whom Do Residential Contexts Matter? Moving Away from the Dichotomous Understanding of Neighborhood Effects." *Annual Review of Sociology* 40:559–79.
Small, Mario L. 2004. *Villa Victoria*. Chicago, IL: University of Chicago Press.
———. 2007. "Is There Such a Thing as "the Ghetto?" *City* 11(3):413–21.
———. 2008. "Four Reasons to Abandon the Idea of 'the Ghetto'." *City & Community* 7(4):389–98.
———. 2009. "'How Many Cases Do I Need?' On science and the Logic of Case-selection in Field-based Research." *Ethnography* 10(1):5–38.
———. 2015. "De-exoticizing Ghetto Poverty: On the Ethics of Representation in Urban Ethnography." *City & Community* 14(4):352–8.
———., and Jessica Feldman. 2012. "Ethnographic Evidence, Heterogeneity, and Neighbourhood Effects after Moving to Opportunity. In Maarten van Ham, David Manley, Nick Bailey, Ludi Simpson, and Duncan Maclennan (eds.) *Neighbourhood effects research: New perspectives*, pp. 57–77. Dordrecht: Springer.
———., and Katherine Newman. 2001. "Urban Poverty After the Truly Disadvantaged: The Rediscovery of the Family, the Neighborhood, and Culture." *Annual Review of Sociology* 27:23–45.
Venkatesh, Sudhir A. 2000. *American Project*. Cambridge, MA: Harvard University Press.
Victor, Daniel. 2015. Videos Show Baltimore Riots Erupting After Freddie Gray Funeral. *New York Times*, July 21.
Vigdor, Jacob L. 2013. *Immigration and the Revival of American Cities*. Report. http://www.as-coa.org/articles/immigration-and-revival-american-cities [Accessed 14 March 2017].
———. 2014. *Immigration and New York City*. Report. http://www.as-coa.org/articles/immigration-and-new-york-city-contributions-foreign-born-americans-new-yorks-renaissance [Accessed 14 March 2017].
Wacquant, Loic. 2008. *Urban Outcasts*. New York: Wiley & Sons.
———. 2016. "Revisiting Territories of Relegation: Class, Ethnicity and State in the Making of Advanced Marginality." *Urban Studies* 53(6):1077–88.
Whyte, William Foote. 1943. *Street Corner Society*. Chicago, IL: University of Chicago Press.
Wilson, William Julius. 1987. *The Truly Disadvantaged*. Chicago, IL: University of Chicago Press.
———. 1993. The New Urban Poverty and the Problem of Race. Tanner Lectures on Human Values, October 22 and 23. University of Michigan.
———. 1996. *When Work Disappears*. New York: Knopf.
Wodtke, Geoffrey T., David J. Harding, and Felix Elwert. 2011. "Neighborhood Effects in Temporal Perspective: The Impact of Long-term Exposure to Concentrated Disadvantage on High School Graduation." *American Sociological Review* 76(5):713–36. https://doi.org/10.1177/0003122411420816

APPENDIX A: CITY BY CITY RESULTS, 100 LARGEST METROS

TABLE A1. Severity and Duration of Continuous Depopulation, Central Cities of the 100 Largest Metropolitan Areas

			2010 pop < 1990 pop (*k*), where *k* is				Consecutive decades of any population loss			
MSA	2010 population	Count of poor tracts	1.0	0.9	0.8	0.7	1	2	3	4
New York, NY	11,575,846	156	13.5%	9.6%	3.2%	2.6%	41.7%	13.9%	6.0%	4.6%
Los Angeles, CA	9,818,603	93	11.8%	11.8%	8.6%	4.3%	40.9%	11.8%	3.2%	2.2%
Chicago, IL	7,883,147	97	73.2%	72.2%	63.9%	35.1%	90.7%	73.2%	66.0%	49.5%
Houston, TX	5,946,800	48	29.2%	27.1%	14.6%	6.3%	65.3%	30.6%	26.5%	14.3%
Atlanta, GA	5,268,860	31	25.8%	25.8%	22.6%	12.9%	74.2%	25.8%	25.8%	19.4%
Washington, DC	4,376,986	17	17.6%	11.8%	5.9%	0.0%	29.4%	17.6%	17.6%	5.9%
Dallas, TX	4,235,751	37	35.1%	32.4%	27.0%	16.2%	73.0%	35.1%	29.7%	24.3%
Riverside, CA	4,224,851	12	8.3%	8.3%	8.3%	0.0%	16.7%	8.3%	0.0%	0.0%
Phoenix, AZ	4,192,829	49	12.2%	12.2%	6.1%	6.1%	73.5%	12.2%	4.1%	4.1%
Philadelphia, PA	4,008,968	66	39.4%	33.3%	21.2%	4.5%	56.1%	39.4%	30.3%	28.8%
Minneapolis, MN	3,279,833	31	9.7%	6.5%	3.2%	0.0%	61.3%	9.7%	6.5%	6.5%
San Diego, CA	3,095,311	12	8.3%	8.3%	8.3%	8.3%	50.0%	8.3%	0.0%	0.0%
Santa Ana, CA	3,010,213	3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
St. Louis, MO	2,837,592	22	54.5%	54.5%	54.5%	50.0%	68.2%	54.5%	54.5%	50.0%
Tampa, FL	2,783,235	12	25.0%	16.7%	8.3%	8.3%	41.7%	25.0%	25.0%	25.0%
Baltimore, MD	2,710,471	23	69.6%	65.2%	65.2%	52.2%	78.3%	69.6%	60.9%	56.5%
Seattle, WA	2,644,584	6	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%
Oakland, CA	2,559,258	8	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%
Denver, CO	2,543,482	9	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%	0.0%	0.0%
Miami, FL	2,496,344	16	31.3%	12.5%	6.3%	6.3%	50.0%	31.3%	18.8%	12.5%
Warren, MI	2,475,630	6	83.3%	83.3%	66.7%	33.3%	100.0%	83.3%	50.0%	33.3%
Pittsburgh, PA	2,356,285	16	62.5%	62.5%	56.3%	37.5%	68.8%	62.5%	56.3%	50.0%
Edison, NJ	2,340,243	2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Portland, OR	2,226,009	2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sacramento, CA	2,149,127	2	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%
Newark, NJ	2,147,727	14	28.6%	28.6%	28.6%	14.3%	50.0%	28.6%	21.4%	7.1%
San Antonio, TX	2,142,504	20	30.0%	25.0%	15.0%	10.0%	55.0%	30.0%	30.0%	30.0%
Fort Worth, TX	2,136,022	15	6.7%	0.0%	0.0%	0.0%	20.0%	6.7%	6.7%	6.7%
Orlando, FL	2,134,411	3	66.7%	33.3%	33.3%	33.3%	66.7%	66.7%	33.3%	33.3%
Cincinnati, OH	2,130,151	32	71.9%	71.9%	62.5%	28.1%	84.4%	71.9%	59.4%	53.1%
Cleveland, OH	2,077,239	49	61.2%	61.2%	51.0%	36.7%	83.7%	61.2%	55.1%	55.1%
Kansas City, MO	2,035,304	23	56.5%	56.5%	56.5%	34.8%	82.6%	56.5%	43.5%	43.5%
Las Vegas, NV	1,951,269	6	33.3%	16.7%	16.7%	16.7%	66.7%	33.3%	0.0%	0.0%
Boston, MA	1,887,698	22	4.5%	4.5%	4.5%	4.5%	13.6%	4.5%	0.0%	0.0%
San Jose, CA	1,836,911	1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Columbus, OH	1,836,534	36	66.7%	66.7%	55.6%	30.6%	77.8%	66.7%	52.8%	50.0%
Detroit, MI	1,820,584	111	69.4%	68.5%	64.0%	56.8%	91.9%	69.4%	57.7%	46.8%
San Francisco, CA	1,776,095	4	25.0%	25.0%	25.0%	0.0%	50.0%	25.0%	0.0%	0.0%
Charlotte, NC	1,758,037	15	26.7%	26.7%	13.3%	0.0%	73.3%	26.7%	20.0%	13.3%
Indianapolis, IN	1,756,241	19	68.4%	68.4%	42.1%	31.6%	84.2%	68.4%	68.4%	68.4%
Fort Lauderdale, FL	1,748,046	4	75.0%	75.0%	75.0%	25.0%	100.0%	75.0%	50.0%	25.0%
Austin, TX	1,716,289	18	5.6%	5.6%	5.6%	0.0%	35.7%	7.1%	7.1%	0.0%
Virginia Beach, VA	1,671,677	9	22.2%	22.2%	11.1%	0.0%	33.3%	22.2%	22.2%	22.2%
Providence, RI	1,600,849	12	16.7%	8.3%	0.0%	0.0%	41.7%	16.7%	0.0%	0.0%
Nashville, TN	1,589,934	18	33.3%	16.7%	5.6%	5.6%	70.6%	35.3%	35.3%	23.5%
Milwaukee, WI	1,555,908	52	71.2%	65.4%	57.7%	40.4%	76.9%	71.2%	46.2%	44.2%
Jacksonville, FL	1,345,596	10	70.0%	70.0%	50.0%	30.0%	90.0%	70.0%	60.0%	60.0%
West Palm Beach, FL	1,320,134	2	100.0%	100.0%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%
Memphis, TN	1,316,097	38	73.7%	73.7%	71.1%	65.8%	94.7%	73.7%	68.4%	57.9%
Louisville/Jefferson County, KY	1,283,557	21	57.1%	57.1%	14.3%	9.5%	81.0%	57.1%	52.4%	42.9%
Richmond, VA	1,258,251	14	21.4%	7.1%	0.0%	0.0%	42.9%	21.4%	21.4%	14.3%
Oklahoma City, OK	1,252,911	14	21.4%	21.4%	21.4%	7.1%	42.9%	21.4%	21.4%	21.4%

(Continued)

TABLE A1. Continued

MSA	2010 population	Count of poor tracts	2010 pop < 1990 pop (k), where k is				Consecutive decades of any population loss			
			1.0	0.9	0.8	0.7	1	2	3	4
Camden, NJ	1,250,679	8	62.5%	50.0%	37.5%	12.5%	62.5%	62.5%	25.0%	25.0%
Hartford, CT	1,212,381	15	40.0%	40.0%	33.3%	6.7%	46.7%	40.0%	20.0%	20.0%
New Orleans, LA	1,167,756	36	72.2%	72.2%	72.2%	66.7%	91.7%	72.2%	63.9%	61.1%
Buffalo, NY	1,135,509	21	81.0%	81.0%	66.7%	42.9%	90.5%	81.0%	66.7%	57.1%
Raleigh, NC	1,130,458	6	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%
Birmingham, AL	1,128,047	13	76.9%	76.9%	76.9%	69.2%	84.6%	76.9%	61.5%	30.8%
Salt Lake City, UT	1,124,197	3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rochester, NY	1,054,323	25	84.0%	76.0%	52.0%	12.0%	92.0%	84.0%	52.0%	48.0%
Tucson, AZ	980,263	10	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	0.0%
Honolulu, HI	953,069	4	25.0%	25.0%	0.0%	0.0%	25.0%	25.0%	25.0%	0.0%
Tulsa, OK	937,478	9	33.3%	11.1%	0.0%	0.0%	100.0%	33.3%	22.2%	11.1%
Fresno, CA	930,450	23	17.4%	13.0%	8.7%	0.0%	34.8%	17.4%	0.0%	0.0%
Bridgeport, CT	916,829	7	28.6%	14.3%	14.3%	14.3%	28.6%	28.6%	28.6%	28.6%
Albuquerque, NM	887,077	2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Albany, NY	870,716	6	33.3%	16.7%	0.0%	0.0%	50.0%	33.3%	16.7%	16.7%
Omaha, NE	865,350	6	33.3%	33.3%	0.0%	0.0%	100.0%	33.3%	33.3%	33.3%
New Haven, CT	862,477	6	33.3%	16.7%	16.7%	0.0%	50.0%	33.3%	0.0%	0.0%
Dayton, OH	841,502	18	88.9%	88.9%	83.3%	55.6%	100.0%	88.9%	72.2%	66.7%
Bakersfield, CA	839,631	6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Oxnard, CA	823,262	1	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%
Allentown, PA	821,173	10	10.0%	10.0%	0.0%	0.0%	20.0%	10.0%	0.0%	0.0%
Baton Rouge, LA	802,484	16	25.0%	25.0%	12.5%	12.5%	56.3%	25.0%	25.0%	18.8%
El Paso, TX	800,647	25	52.0%	48.0%	28.0%	24.0%	80.0%	52.0%	32.0%	28.0%
Worcester, MA	798,552	3	33.3%	0.0%	0.0%	0.0%	66.7%	33.3%	33.3%	0.0%
Tacoma, WA	795,225	4	25.0%	25.0%	0.0%	0.0%	25.0%	25.0%	0.0%	0.0%
McAllen, TX	774,769	11	27.3%	18.2%	9.1%	0.0%	63.6%	27.3%	18.2%	0.0%
Grand Rapids, MI	774,160	6	16.7%	0.0%	0.0%	0.0%	66.7%	16.7%	0.0%	0.0%
Columbia, SC	767,576	8	62.5%	62.5%	50.0%	25.0%	75.0%	62.5%	50.0%	37.5%
Greensboro, NC	723,801	11	27.3%	27.3%	0.0%	0.0%	54.5%	27.3%	27.3%	18.2%
Gary, IN	708,065	6	100.0%	100.0%	83.3%	66.7%	100.0%	100.0%	100.0%	100.0%
Wilmington, DE	705,670	3	33.3%	33.3%	0.0%	0.0%	100.0%	33.3%	0.0%	0.0%
Akron, OH	703,200	15	53.3%	53.3%	46.7%	20.0%	93.3%	53.3%	46.7%	46.7%
North Port, FL	702,281	1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Little Rock, AR	699,755	7	28.6%	28.6%	28.6%	28.6%	83.3%	33.3%	33.3%	33.3%
Knoxville, TN	698,003	7	14.3%	14.3%	14.3%	0.0%	57.1%	14.3%	14.3%	14.3%
Springfield, MA	692,942	8	50.0%	25.0%	12.5%	0.0%	62.5%	50.0%	12.5%	12.5%
Stockton, CA	685,306	8	50.0%	50.0%	25.0%	12.5%	87.5%	50.0%	0.0%	0.0%
Poughkeepsie, NY	670,301	1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Charleston, SC	664,607	12	50.0%	50.0%	41.7%	8.3%	58.3%	50.0%	50.0%	33.3%
Syracuse, NY	662,577	22	40.9%	36.4%	22.7%	13.6%	45.5%	40.9%	40.9%	40.9%
Toledo, OH	651,429	22	63.6%	63.6%	59.1%	36.4%	77.3%	63.6%	59.1%	54.5%
Colorado Springs, CO	645,613	2	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Greenville, SC	636,986	2	100.0%	100.0%	50.0%	0.0%	100.0%	100.0%	100.0%	50.0%

Source: 1970–2010 U.S. Census, with 2010 normalized tract boundaries; 100 largest metros; all tracts that were poor in 2010. In the first four columns, tract must have lost residents for two consecutive decades.

APPENDIX B: RESULTS WITH FULL MSAs

TABLE B1. Median Values of Descriptive HGLM Variables, 1990 and 2010

	1990	2010
City-level variables		
City poverty rate	10.8%	12.5%
City % black	10.2%	12.0%
City % recent immigrants	2.0%	3.4%
City unemployment rate	5.7%	7.8%
City population growth (%)	26.3%	24.8%
City population	899,783	1,312,341
Neighborhood-level variables—poor tracts		
Tract poverty rate	47.6%	47.3%
Tract % black	57.0%	38.8%
Tract % recent immigrants	2.4%	3.6%
Tract unemployment rate	18.8%	17.4%
N	1,864	2,106

Source: 1970–2010 U.S. Census, with 2010 normalized tract boundaries; 100 largest metros.

TABLE B2. HGLM Ordered Logit Coefficients Predicting Log Odds that Poor Tract is Depopulated, Transitional, or Populated

	1990		2010	
Tract poverty rate	−0.475	−0.59	−0.74	−0.756
Tract % black	1.688***	1.593***	2.213***	2.220***
Tract % recent immigrants	−4.086***	−3.139***	−2.195**	−1.704*
Tract unemployment rate	1.048	1.43	2.513***	2.463***
City poverty rate		3.213		2.331
City % black		0.691		−0.786
City % recent immigrants		−11.496**		−14.148**
City unemployment rate		−18.083		1.717
City population growth (%)		−1.069**		−1.235***
City population (log)		0.217		0.044
Cutoff for depop. vs. trans.	−2.653***	−2.616***	−1.849***	−1.892***
Cutoff for trans. vs. pop.	−0.022	0.026	0.704***	0.658***
N	1,861	1,861	2,104	2,104

Source: 1970–2010 U.S. Census, with 2010 normalized tract boundaries; 100 largest metropolitan areas; all poor tracts. Results from HGLM models among central city poor tracts in 1990 and 2010 predicting population trajectory over the previous two decades.

TABLE B3. Proportion of Poor Tracts that are Depopulated, by Duration and Severity of Depopulation, Full MSAs of the 100 Largest Metropolitan Areas, 2010

Severity					
		2010 pop < 1990 pop (k), where k *is*			
	n	1.0	0.9	0.8	0.7
All	2,113	39.4%	36.4%	28.9%	18.5%
Cities					
25th percentile		10.7%	8.2%	0.0%	0.0%
50th percentile		28.0%	23.3%	11.1%	5.4%
75th percentile		55.6%	53.4%	42.0%	19.5%
N cities with at least 50% poor tracts depopulated		30	26	18	7
Duration					
		Consecutive decades of any population loss			
	n	1.0	2.0	3.0	4.0
All	2,080	63.1%	40.0%	31.2%	26.2%
Cities					
25th percentile		38.7%	11.3%	0.0%	0.0%
50th percentile		58.3%	28.8%	22.2%	14.3%
75th percentile		80.0%	55.6%	41.7%	33.3%
N cities with at least 50% poor tracts depopulated		60	30	20	11

Source: 1970–2010 U.S. census, with 2010 normalized tract boundaries; central cities in 100 largest metropolitan areas; all tracts that were poor in 2010. In top panel, tract must have lost residents for two consecutive decades. Top and bottom panels will differ slightly in number of tracts because of exclusions if tracts are missing data in particular years. See text.

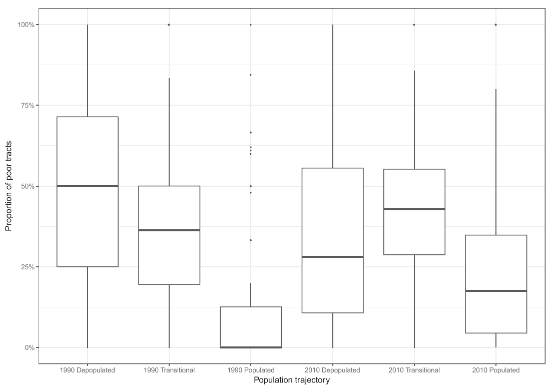

FIG. B1. Proportion of poor tracts depopulated, transitional, and populated in the 100 largest U.S. cities, 1990 and 2010, full MSAs.

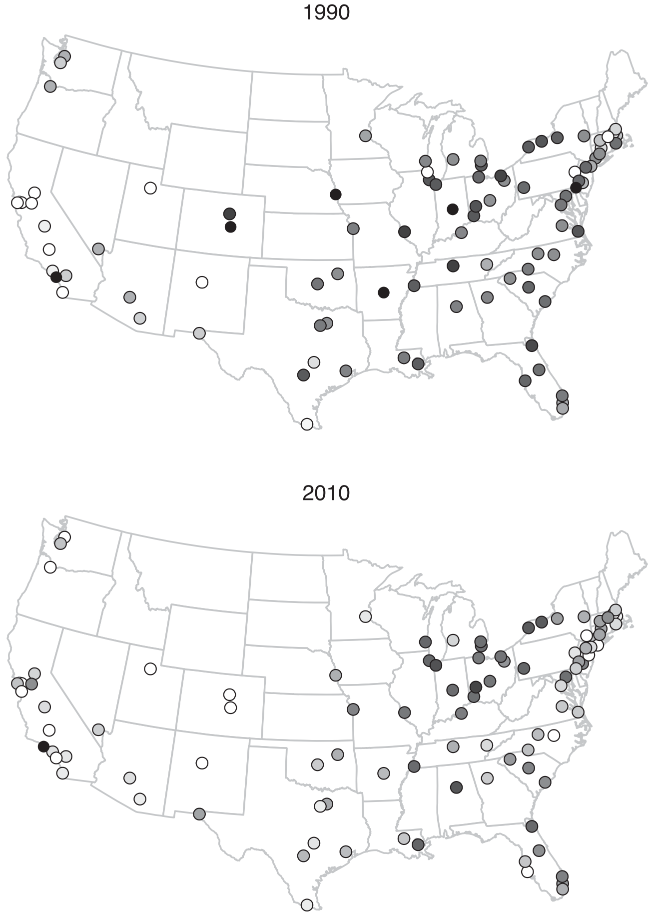

FIG. B2. Proportion of poor tracts depopulated, transitional, or populated, 100 largest metros, 1990 and 2010, full MSAs.