

Ecological Succession and the Historical Emergence of High-Poverty Neighborhoods: 1970-2000

Robert L. Wagmiller, Jr., Ph.D.
Assistant Professor

Elizabeth Ann Gage, M.A.

Department of Sociology
University at Buffalo
430 Park Hall, Box 604140
Buffalo, NY 14260-4140
rw26@buffalo.edu.
(716) 645-2417 ext. 467 – Phone
(716) 645-3934 – Fax

Abstract

The social ecology of urban poverty has changed dramatically over the last thirty years. In the 1970s and 1980s, poverty became much more concentrated in a growing number of socially-isolated and intensely-disadvantaged inner-city neighborhoods. In the 1990s, concentrated poverty unexpectedly and dramatically declined. This study investigates the effect that racial and ethnic succession had on the growth of high-poverty neighborhoods in the 1970s and 1980s and the decline of high-poverty neighborhoods in the 1990s. Drawing on the human ecology literature, we develop arguments for why racial invasion and succession may have contributed to the dramatic increase in the number of high-poverty neighborhoods in the 1970s and 1980s. We test these hypotheses using longitudinal data drawn from the Neighborhood Change Database on urban neighborhoods from 1970 to 2000. Preliminary results indicate that much, if not all, the growth in concentrated poverty is attributable to processes of ecological succession.

Introduction

The social ecology of urban poverty has changed dramatically over the last thirty years. In the 1970s and 1980s, poverty became much more concentrated in a growing number of socially-isolated and intensely-disadvantaged inner-city neighborhoods (Jargowsky and Bane 1991; Jargowsky 1997 and 2003; Kingsley and Petit 2003; Wilson 1987 and 1996). In the 1990s, concentrated poverty unexpectedly and dramatically declined (Jargowsky 2003; Kingsley and Petit 2003). Inner-city neighborhoods, particularly racial and ethnic minority neighborhoods, have always been poorer than the surrounding suburban and white neighborhoods. However, prior to the late 1960s and early 1970s poor individuals and families typically made up only a small share of the population in these neighborhoods. In the 1970s and 1980s, however, poor individuals and families represented a rapidly increasing share of the population in many inner-city neighborhoods. As a result, the number of high-poverty neighborhoods¹ more than doubled between 1970 and 1990 (Jargowsky and Bane 1991; Jargowsky 1997 and 2003; Kingsley and Pettitt 2003).

Urban theorists have attributed the emergence of high-poverty neighborhoods to a series of structural changes in the metropolis that have disproportionately disadvantaged inner-city residents, particularly low-income black residents. Industrial restructuring is believed to have undermined the economic competitiveness of the central city, leading to substantial job losses in the manufacturing sector and limited economic opportunities for low-skill workers in the city (Allen and Farley 1986; Bonacich 1976; Kain 1968; Kasarda 1983, 1985, and 1995; Sugrue 1996; Wilson 1987 and 1996). An influx of new immigrants is thought to have further undermined the labor market position of low-skill native workers in the city (Waldinger 1996). The progressive suburbanization of both population and employment is believed to have concentrated poverty in the inner city (Downs 1997; Kain 1968; Wilson 1987) and racial residential segregation is believed to have concentrated inner-city poverty in low-income black neighborhoods (Massey 1990; Massey and Denton 1993). The enactment of fair housing laws is thought to have spurred an exodus of middle- and working-class African-Americans from traditionally black neighborhoods, further concentrating poverty in low-income black neighborhoods.

Omitted from the ongoing debate about the causes of increasing neighborhood poverty has been a discussion of how ecological processes such as invasion and succession have affected the concentration of poverty in urban America. Yet, there are several reasons to believe that racial succession may have played an important role in the growth of concentrated poverty in the 1970s and 1980s. First, case studies of individual metropolitan areas reveal that many of the new high-poverty neighborhoods have been located in the zone of transition surrounding traditionally black neighborhoods (Jargowsky 1997). Second, increasing disamenities in the city (violent racial unrest, rapidly rising crime rates, increasing taxes, etc.) in the 1970s and 1980s are likely to have accelerated racial transition and succession processes. Third, the same fair housing laws that are believed to have spurred an exodus of middle- and working-class African-Americans from traditionally black neighborhoods may have attenuated the social forces, such as the informal neighborhood norms and juvenile gangs which “defended” white ethnic neighborhoods (Suttles 1962), that impeded invasion and succession processes in the pre-Civil Rights era.

This study investigates the effect that racial and ethnic succession had on the growth of high-poverty neighborhoods in the 1970s and 1980s and the decline of high-poverty neighborhoods in the 1990s. Drawing on the human ecology literature, we develop arguments for why racial invasion and succession may have contributed to the dramatic increase in the number of high-poverty neighborhoods in the 1970s and 1980s. We test these hypotheses using longitudinal data on urban neighborhoods from 1970 to 2000 drawn from the Neighborhood Change Database (NCDB).

Ecological Succession and the Growth of High-Poverty Neighborhoods

Early human ecologists, such as Park (1936), Burgess (1925), and McKenzie (1924), in direct analogy to the plant and animal world, postulated that metropolitan growth and expansion takes place in a successional sequence that is the outcome of a series of territorial invasions. The entry of business enterprises into a residential area, for example, may over time transform the area from a residential neighborhood into a business district. Subsequent invasion and succession may in the future transform the area from a business district into an industrial district. Similarly, the entry of occupants with different status characteristics (race, ethnicity, social class, etc.) into an area can transform the economic or racial status of the area, eventually leading the community to be closely identified with the new group of occupants. Over time invasion and succession processes can dramatically alter the urban landscape. Previously unsettled areas can become new high-status areas as affluent individuals and families migrate into outlying areas. Formerly high- and middle-status areas can decline in status as more well-to-do

¹ High poverty neighborhoods have generally come to be defined as neighborhoods in which 40% or more of the population are living in poverty.

residents leave the area and are replaced by lower status occupants. Gentrification can reverse this process, causing the status of an area or neighborhood to rebound.

In this study, we examine how racial and ethnic succession contribute to the expansion of high-poverty neighborhoods. Current explanations for the emergence of high-poverty neighborhoods emphasize how broader structural changes in the economy and metropolis have negatively affected the residents of new high-poverty neighborhoods, leading to increasing poverty rates in these neighborhoods. Global economic competition and deindustrialization are thought to have made it more difficult for the residents of these neighborhoods to find and sustain employment in high-wage industries (Bonacich 1978; Sugrue 1996; Wilson 1987 and 1996). The suburbanization of employment is believed to have created a spatial mismatch between the geographic location of residents of high-poverty neighborhoods and areas of new employment growth (Kain 1968; Wilson 1987). As cities have become centers of commerce and information processing, a mismatch between central city residents' employment skills and employer's skill demands is thought to have emerged (Kasarda ???). Greater employee loyalty, higher quality work, and ease in recruiting is believed to have led to the development of a hiring queue based on ethnicity that makes it difficult for low-skill native-born workers, particularly African-American workers, to compete with new immigrants for jobs in the city (Waldinger 1996; Waldinger and Lichter 2003). Fair housing laws enacted in the late 1960s are hypothesized to have enabled more affluent blacks to move from traditionally African-American neighborhoods to integrated and predominantly-white neighborhoods, leaving black neighborhoods much poorer than they were in the past (Wilson 1987). Class and racial residential segregation are thought to have concentrated the negative consequences of rising poverty rates in low-income and black neighborhoods (Massey 1990).

Undoubtedly, these structural changes in the economy and metropolis have contributed to the dramatic increase in the number of high-poverty neighborhoods in the 1970s and 1980s. However, this sharp increase is likely also a consequence of broader patterns of neighborhood change in the metropolis. New high-poverty neighborhoods can arise not only because residents in a neighborhood become poorer or because more affluent residents move out of the neighborhood, but also because poor residents migrate into new neighborhoods. Oftentimes, the migration of significant numbers of poor individuals or racial and ethnic minority group members or renters into a neighborhood will spark a change in the neighborhood's racial and socioeconomic status. Sometimes, succession will result in non-poor neighborhoods becoming high-poverty neighborhoods.

One reason that invasion and succession processes may have played a prominent role in the dramatic increase in the number of high-poverty neighborhoods in the 1970s and 1980s is that many of the factors that had prevented African-Americans from migrating into new neighborhoods in the pre-Civil Rights era weakened or declined in the 1960s and 1970s. In the pre-Civil Rights era, a variety of exclusionary mechanisms blocked African-Americans from entering white neighborhoods. Informal norms sanctioned racial discrimination and juvenile gangs defended and maintained the boundaries between white ethnic neighborhoods and adjacent racial and ethnic minority neighborhoods (Suttles 1962 and 1972). The institutionalization of discrimination within the real estate industry slowed or prevented the entry of African-Americans into many white ethnic neighborhoods (Massey and Denton 1993). Discriminatory lending practices made it difficult for blacks to obtain the financing necessary to acquire homes in white neighborhoods (Massey and Denton 1993).

In the late-1960s and early-1970s, white neighborhoods' capacity to prevent the entry of African-Americans declined. Title VIII of the Civil Rights Act of 1968 (Fair Housing Act) prohibited discrimination in the sale, rental, and financing of dwellings, and in other housing-related transactions, based on race, color, national origin, religion, sex, familial status, and disability. The courts ended the systematic placement of public housing in black neighborhoods (Massey and Denton 1993). White support for the principle of "open housing" increased sharply (Schuman, Steeh, and Bobo 1985). Perhaps as importantly, the combination of violent racial unrest, soaring crime rates, continued post-war affluence, and federal, state, and local policies that encouraged suburban development made flight to the suburbs more attractive to many white homeowners than discriminatory efforts to exclude blacks from their neighborhoods. As a result, an increasing number of neighborhoods in the metropolis experienced racial successions, with African-Americans supplanting the white ethnics that had previously inhabited many of these neighborhoods.

Racial succession can have profound effects on the concentration of poverty and the number of high-poverty neighborhoods because of dramatic differences in group poverty rates (Bureau of the Census 2005). In the late 1960s, the black poverty rate averaged more than 35% while the white poverty rate averaged only 10%. In the 1970s and 1980s, the black poverty rate fell slowly while the white poverty rate remained essentially unchanged. As late as the mid-1990s, however, the black poverty rate continued to be greater than 30%. Much as racial differences in poverty rates and high levels of racial residential segregation interact to produce concentrated poverty (Massey 1990), invasion and succession processes interact with group differences in poverty rates to create new high-poverty

neighborhoods. Table 1 illustrates the dramatic effect that racial succession can have on a neighborhood's poverty rate when group poverty rates differ. Assuming a 10% poverty rate for whites and a 30% poverty rate for blacks, a neighborhood that transitions from 100% white to 50% white and 50% black will experience a doubling of its poverty rate, from 10% to 20%. A neighborhood that transitions from 100% white to 100% black will see its poverty rate increase threefold, from 10% to 30%. If poor blacks enter a neighborhood at a higher rate than more affluent blacks or more affluent whites leave a neighborhood more quickly than poor whites, the effect of racial succession on neighborhood poverty rates will be even greater.

<Table 1>

In this research, we examine the effect that ecological succession has had on the sharp increase in the number of high-poverty neighborhoods over the last three decades. We expect that as whites are replaced by non-whites, homeowners are replaced by renters, and the number of vacant homes in a neighborhood increases the likelihood that a non-poor neighborhood becomes a high-poverty neighborhood will increase dramatically. More controversially, we hypothesize that after we control for ecological invasion and succession processes the number of high-poverty neighborhoods in the 1970s and 1980s will increase very little or not at all. To demonstrate the powerful effect that successional processes have had on the number of high-poverty neighborhoods and the concentration of poverty we will use our results to simulate what would have happened if succession had not occurred in the 1970s, 1980s, and 1990s.

Data and Methods

Data for this study come from the Neighborhood Change Database (NCDB), which integrates information on the population and housing characteristics of all census tracts from the 1970, 1980, 1990, and 2000 Decennial Census of Population and Housing into a single database. Census tracts are employed because they represent the closest approximation to neighborhoods available in official statistics (Jargowsky 2003; Quillian 2003), with populations typically ranging between 2,500 and 8,000 inhabitants and boundaries initially drawn to construct geographic units with relatively homogenous population characteristics, economic status, and living conditions. Tract boundaries are periodically redrawn in response to population shifts, making geographic comparability an important concern in any study of neighborhood change. Tract boundaries are redrawn in order to maintain their size and geographic integrity and new tracts are added as the population of a metropolitan area migrates into previously untraced areas. Relatively few tracts maintain stable boundaries over the entire 1970 to 2000 time span.² Because the principal focus of this study is how neighborhood change affects the concentration of poverty, it is important that temporally-consistent geographic units are used. Otherwise, it is impossible to determine whether apparent changes in neighborhood poverty rates are attributable to changes in the spatial distribution of poverty or to changes in the geographic boundaries of spatial units. To avoid this problem, we use census tract data normalized to Census 2000 tract boundaries for all census years. We only include tracts in metropolitan areas because our focus and the focus of past studies has been on the concentration of poverty in urban areas. Our sample of neighborhoods includes the 42,178 tracts in the counties and towns comprising the 204 metropolitan areas defined by the U.S. Bureau of the Census in 1970.^{3,4} Fixed effect regression models are employed to examine the impact of invasion and succession processes on neighborhood transitions from non-high poverty neighborhoods to high poverty neighborhoods.

² Less than 30 percent of the tracts in this sample of metropolitan areas do not change boundaries between 1970 and 2000.

³ Tracts where more than 40 percent of the population in any year resided in group quarters were deleted in order to remove tracts dominated by prisons, military bases, colleges and universities and other formal institutions.

⁴ Prior to 1980 few areas outside of the boundaries of MSAs were tracted. Therefore, it is not possible to construct geographically-comparable tract data for metropolitan areas defined in terms of more recent MSA definitions.

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Table 1: Expected Poverty Rates in a Hypothetical Neighborhood with Different Racial Compositions

% white ^a	% black ^b	% poor
100	0	10
90	10	12
80	20	14
70	30	16
60	40	18
50	50	20
40	60	22
30	70	24
20	80	26
10	90	28
0	100	30

^a Based on an assumption of a 10% poverty rate for whites.

^b Based on an assumption of a 30% poverty rate for blacks.