The Disparate Impact of Metropolitan Economic Change: The Growth of Extreme Poverty Neighborhoods, 1970–1990*

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Abstract: Metropolitan areas have experienced an increase in neighborhood poverty over the last few decades. Two lines of explanation for such poverty growth focus on the role of economic transformations and increasing welfare dependency. This paper considers the argument that the growth of extreme poverty is related to a number of complex economic changes at the metropolitan level that have had variable impacts on the nature of poverty neighborhoods. Using 1970, 1980, and 1990 economic and population data for a sample of 205 metropolitan areas, I found that employment dynamics had significant effects on the growth of extreme poverty among African-Americans, whites, and Hispanics. My interpretations partially confirm Wilson's deindustrialization hypothesis, as metropolitan areas experiencing declining employment availability within the manufacturing/construction sector exhibited the greatest increase in extreme poverty during the 1970s, especially among African-Americans. However, the effect of deindustrialization on neighborhood poverty declined over time. During the 1980s poverty became more generally linked to changes within other economic sectors, notably retail. Moreover, in certain contexts, the public sector functions as an employment niche that limits poverty growth among minorities. My findings provide no support for the "conservative hypothesis" linking concentrated urban poverty to the availability of welfare benefits. Empirical analysis incorporates the concept of metropolitan contingency, or the notion that the impacts of economic change on poverty are significantly conditioned by the nature of metropolitan economic structure.

Key words: extreme poverty, economic transformation, welfare benefits, metropolitan context.

It has been more than 20 years since the beginning of Lyndon Johnson's "War on Poverty," yet urban poverty persists as a major social feature in the metropolitan United States. Perhaps more problematic is that urban poverty has become more concentrated in particular metropolitan neighborhoods and that neighborhood communities having extreme poverty rates have expanded considerably. Jargowsky analyzed the growth of high-poverty neighborhoods in the metropolitan United States from 1970 to 1990 and found that such neighborhoods had expanded in "physical size, number of residents, number of poor residents, and the proportion of metropolitan population living within them" (Jargowsky 1997, 29). This dramatic increase in urban poverty has attracted considerable academic, journalistic, and political attention, which in turn has led to considerable debate regarding its causes and consequences. Much of this debate focuses on the relative importance of two lines of explanation for urban poverty: met-

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ropolitan-level economic processes and the impacts of federal antipoverty programs.

Investigations of the consequences of metropolitan-level economic processes on neighborhoods have considered both the aggregate change in poverty and the geographic concentration of this condition (Wilson 1987, 1991, 1996; Kasarda 1989, 1990, 1993; Galster and Mincy 1993; Galster, Mincy, and Tobin 1997; Hughes 1989a, 1989b, 1990; Jargowsky 1997). Researchers emphasize the role of economic restructuring in decreasing employment opportunities within central cities. More specifically, the growth of neighborhood poverty is often viewed as an outcome of employment decline within certain economic sectors, such as the manufacturing/construction sector, which formerly provided job opportunities for urban residents with modest skill levels and educational backgrounds. While deindustrialization, or job decreases in the manufacturing/construction sector, has significantly affected metropolitan employment opportunities, a number of researchers have explored the notion that job losses in other economic sectors have also had substantial impacts (Durden and Schwarz-Miller 1982; Eisinger 1983; Suggs 1989; Johnson and Oliver 1991, 1992). In this paper I consider the argument that the role of metropolitanwide employment dynamics as a causal factor underlying the growth of urban poverty has been overly generalized, especially in regard to the role of deindustrialization.

A second major explanation for urban poverty focuses on the role of federal antipoverty programs (Gilder 1980; Murray 1984, 1993; Moffitt 1990a, 1990b, 1992; Meade 1986, 1992; Page and Shapiro 1992; Kaus 1994; Bobo and Smith 1994). This perspective is based on the notion that federal social policy has indirectly reinforced or subsidized the poverty conditions that it was designed to alleviate. According to this explanation, welfare programs initiated in the 1960s provided incentive structures that normalized behavior less conducive to economic advancement and more conducive to the creation and continuation of poverty. For example, many scholars and journalists have argued that the proliferation of welfare programs provided incentives for out-of-wedlock childbearing and disincentives for labor force participation and marriage among poor women. Researchers have investigated the incentive effects of welfare programs on urban poverty at the aggregate metropolitan scale by considering the growth of metropolitanwide poverty rates as a function of changes in benefit levels (Massey and Eggers 1990). Concern for such incentive effects are notably absent from explicit investigations of neighborhood-level poverty, despite the fact that welfare dependency is one of a few demographic traits that has been the focus of an emerging "neighborhood effects" literature (Jenks and Mayer 1990; McGeary 1990; Crane 1991; Brooks-Gunn et al. 1993; Duncan 1994; Green, Tigges, and Browne 1995). In short, any influence that welfare receipt has had on the neighborhood geography of poverty has been overlooked.

Aside from a less-than-thorough consideration of overall economic change and the neighborhood-level impacts of welfare programs, much urban poverty literature has not effectively addressed a number of other important questions raised by more recent research. The nature of extreme poverty growth has varied considerably between the 1970s and 1980s, both by race and metropolitan size (Kasarda 1993; Jargowksy 1997). Whereas such growth occurred primarily within predominantly African-American neighborhoods in large metropolitan areas during the 1970s, research has documented substantial growth of neighborhood poverty among whites in smaller metropolitan areas during the 1980s (O'Hare and Curry-White 1992; Mincy 1994, 1997; Mincy and Wiener 1995). Given the changing nature of neighborhood poverty growth, it is probable that the primary causal factors behind this growth have also changed over time.

The research reported here integrates, conceptually and empirically, a broader

view of economic change with an examination of the effects of welfare benefits on the growth of neighborhood poverty. Specifically, I examine the relationships between the growth of extreme poverty neighborhoods and various measures of employment and population change and changes in the value of welfare benefits at the metropolitan level. This investigation also incorporates more recent notions of the nature of the growth of urban poverty. In this paper I consider the argument that the specific form of job dynamics fueling poverty growth in the 1980s has varied from that of the previous decade. I argue that, aside from manufacturing employment, the growth of other forms of employment requiring fewer skills, such as retail employment, may actually function to reduce the growth of poverty. I also consider another important aspect of economic change that has largely been ignored in the poverty literature: public sector employment dynamics. While considerable changes in the public sector have been documented, such changes have yet to be thoroughly considered as possible causal factors behind the growth of neighborhood-level poverty (Eisinger 1983). I also contend that changes in overall job availability, job dynamics in certain sectors, and changes in welfare payments have had more of an effect on poverty growth among certain racial groups than others and that the nature of these impacts have varied over time. Finally, this research incorporates the notion of *metropolitan contingency*, or the idea that metropolitanwide economic processes do not have the same impact everywhere. I argue that the end results of deindustrialization and public sector employment change are not constant across the metropolitan system, but rather they are conditioned by the varied employment structures of urban economies.

The broad purpose of this paper, then, is to analyze the relationships between the growth of extreme poverty neighborhoods and the dynamics of metropolitanwide employment availability, income-generating processes, and the availability of metropolitanwide government welfare assistance programs. To accomplish this purpose, I analyzed these processes by focusing on a number of changes in a sample of 205 metropolitan areas between 1970 and 1990: (1) changes in the availability of total employment, or aggregate level of labor demand, and employment availability within a number of economic sectors; (2) changes in the value of available income maintenance benefits; (3) changes in mean household incomes for non-Hispanic whites, African-Americans, and Hispanics; (4) overall changes in metropolitan population; and (5) racially specific changes in metropolitan demographic composition. These changes were considered separately for the decades 1970 to 1980 and 1980 to 1990. In order to consider longer-term processes, I also looked at these changes over the 20-year period from 1970 to 1990.

I measured the growth of extreme poverty neighborhoods in two ways: change in the percentage of the metropolitan population residing within extreme poverty neighborhoods and change in the percentage of the metropolitan poor residing within such neighborhoods. To track the growth of extreme poverty among different racial and ethnic groups, I considered these measures separately for whites, African-Americans, and Hispanics.[1]

The remainder of this paper is divided into six sections. The first summarizes the treatment of neighborhood poverty in the literature and specifically focuses on previous work connecting the aforementioned causal factors with poverty growth. The second section provides the research context used to investigate the causal factors

[1] I conceptualize the metropolitanwide economy as a collection of structural processes whose effects are modified by demographic factors, specifically race. For example, I argue that these structural processes impact different racial groups in varied ways. I acknowledge that it would be possible instead to consider race as a structural force that modifies the operation of metropolitanwide economies.

behind neighborhood-level poverty. Within this section, I review the main hypotheses under investigation, as well as the data sources and measurement strategies. A third section provides a descriptive analysis of the growth of neighborhood-level poverty and includes a description of the geographic patterns of such growth. The fourth section briefly summarizes the specific methodology and model formulation used. The fifth section provides results of the analysis, with a final section presenting concluding remarks.

Background

Temporal, Geographic, and Demographic Trends

The focal point for much of the recent scholarly investigation of urban poverty within the United States is the work of Wilson (1980, 1987, 1991, 1996). In his focus on Chicago, he showed that the number of extremely poor neighborhoods and the proportion of all poor residing within such communities increased dramatically during the 1970s. His discussions specifically considered the increasing concentration of the African-American poor. Subsequent research generally confirmed Wilson's observations regarding the widespread growth of neighborhood poverty among African-Americans and highlighted additional dimensions of such growth according to regional location, metropolitan size, and race (Jargowsky and Bane 1990, 1991; Massey and Eggers 1990; Kasarda 1993). Jargowsky and Bane (1991) analyzed the growth of neighborhoods with poverty rates of 40 percent or more in 50 large metropolitan areas. They found that during the 1970s the majority of this growth occurred among African-Americans in large midwestern and northeastern metropolitan areas, primarily driven by New York and Chicago alone. Massey and Eggers (1990) showed similar increases for Hispanics during the 1970s. They further determined that the African-American poor disproportionately resided in extremely poor neighborhoods and that poverty growth was principally confined to metropolitan areas outside of the West for African-Americans and in the Northeast for Hispanics. Mincy and Wiener (1995) confirmed the growth of neighborhood poverty within metropolitan areas where African-Americans were overly concentrated, such as the Northeast and North Central regions.

Research on the growth of high-poverty neighborhoods during the 1980s has documented trends that vary from those evident in the 1970s. African-Americans, particularly poor members of this racial group, remained disproportionately concentrated within extremely poor neighborhoods relative to Hispanics and whites (Jargowsky 1994; Kasarda 1993). Although African-Americans and metropolitan areas in the Midwest were still associated with abundant neighborhood poverty, notable regional and demographic shifts in the growth of urban poverty were identified. Through a comprehensive study of the entire metropolitan United States, Jargowsky (1997) showed that the largest rate of increase of poverty concentration during the 1980s occurred among whites, although the absolute levels of white poverty concentration remain low. Over the same time period, he found only slight increases among Hispanics. Aside from the shift in racial composition, Mincy and Wiener (1995) and Mincy (1997) determined that neighborhood poverty growth had become more of a general metropolitan phenomenon during the 1980s, particularly in regard to the regional dimensions of such growth. Growth in concentrated poverty shifted from large metropolitan areas in the Northeast to smaller metropolitan areas in the South and West, especially among whites. Kasarda (1993) focused on the 100 largest central cities, rather than metropolitan areas, yet his results generally substantiate the findings of Jargowsky (1997) and Mincy (1997). In summary, researchers have found substantial variation in demographic and regional dimen-

sions of neighborhood poverty growth in the 1970s and 1980s.

Metropolitan Economic Processes and Poverty

A number of scholarly attempts to understand the underlying causal mechanisms behind the proliferation of urban poverty focus on metropolitanwide economic processes. Wilson attributed the growth of poverty within inner-city neighborhoods to widespread structural transformation affecting urban economies (Wilson 1987, 1991, 1996). His conception of structural economic change centered on the process of deindustrialization, or the decreasing share of metropolitan jobs in the manufacturing sector. According to this view, increasing urban poverty is related to a process in which metropolitan areas shifted from centers of goods production and distribution to centers of service and administrative industries (Wilson 1987; Kasarda 1989). As a result, blue-collar jobs with less skill and/or educational requirements have largely been replaced by white-collar jobs requiring knowledge-intensive skills (Kasarda 1989). Inner-city minorities, particularly African-Americans, were considered to be especially vulnerable to this deindustrialization process. Johnson and Oliver (1991, 1992) found joblessness among African-American males to be strongly related to relative declines in manufacturing activity. Bound and Holzer (1993) found that industrial shifts had limited impacts on overall employment levels, yet they provided evidence that such shifts significantly influenced employment rates among the young and less educated.

Despite the accepted validity of arguments emphasizing the importance of manufacturing decline, analysis directly connecting the growth of urban poverty to deindustrialization is lacking. More importantly, the empirical relationships between deindustrialization and the concentration of neighborhood poverty remain to be rigorously tested. Hughes (1989a) empirically concluded that deindustrialization had a limited impact on increasing urban poverty and poverty-related behaviors measured at the neighborhood level, with this impact only realized through the interaction of deindustrialization and a dummy variable indicative of the North metropolitan region. Through a cross-sectional analysis using recursive structural equation models, Massey and Eggers (1990) found only minor effects of deindustrialization on metropolitan poverty rates among African-Americans and Hispanics. Jargowsky (1997) determined that the functioning of the metropolitanwide economy had more of an effect on neighborhood poverty than neighborhood-level processes. He measured this effect through a consideration of changes in the overall level of mean income and income inequality, however, and found that the bivariate correlations between proportions of jobs in the manufacturing sector and increases in neighborhood poverty among African-Americans were not impressive, particularly for the South and the nation as a whole during the 1980s. In a comprehensive analysis of individual neighborhood poverty rates, Galster, Mincy, and Tobin (1997) provided empirical results suggesting a connection between neighborhood-level poverty and metropolitan-level economic restructuring, a relationship that was particularly strong in predominantly African-American neighborhoods. In this study a summary measure of economic restructuring was used that included changes in the overall availability of jobs, intrametropolitan employment location, and metropolitan shares of manufacturing. Earlier research using similar methodology, but distinguishing overall job availability from changes in manufacturing, provided little empirical support for the view that the dynamics within the manufacturing sector alone were directly related to poverty (Galster and Mincy 1993).

Wilson's research focused specifically on Chicago, a metropolitan area in the Rust Belt that experienced extreme deindustrialization during the 1970s. Whereas deindustrialization had a significant impact on

Chicago and other Rust Belt cities experiencing decreases in manufacturing employment, this process may have had less of an impact in metropolitan areas that did not have a significant manufacturing base (Johnson and Oliver 1991, 1992). Jargowsky (1997) has noted a few metropolitan areas that experienced declines in manufacturing yet actually exhibited decreases in neighborhood poverty. Wilson's reliance on the theory of deindustrialization as the primary determinant of poverty may possibly be explained by the timing of his research and the fact that he was analyzing an extreme case.

In this paper I explore the notion that the poverty impact of deindustrialization is contingent upon the particular economic base associated with metropolitan economies. This exploration engages the theoretical concept of contingency, or the idea that multiple outcomes may be derived from similar causal processes due to the complexity of spatially differentiated contexts (Jones and Hanham 1995; Cooke 1999). Whereas most of the poverty literature ignores the role of contingency, Lobao, Rulli, and Brown (1999) have provided evidence that local contexts do indeed mediate the impact of macro-level processes on spatial inequality. Through a test of the *embeddedness thesis*, their research empirically validated an effect on inequality resulting from the interaction of core-manufacturing employment and locally varied industrial structures. This paper applies their arguments to an investigation of the role that metropolitan economic structures have in mediating the impact of economic change on neighborhood-level poverty. It is logical to assume that the effects of deindustrialization would be more severe in metropolitan areas having employment bases that are overly focused on manufacturing/construction industries than in metropolitan areas with more diverse economies. Simply put, metropolitan areas with a higher percentage of total employment within the manufacturing/construction sector would be more susceptible to potential negative impacts of deindustrialization. It is critical not only to consider levels of employment change within the manufacturing/construction sector, but also to consider the *interaction* of the process of deindustrialization and the economic bases of metropolitan areas prior to the onset of this process.

Welfare Benefits and Poverty

A number of highly publicized works have associated growing urban poverty with the perceived negative consequences of the U.S. welfare system (Gilder 1980; Murray 1984, 1993; Meade 1986, 1992). Perhaps the most widely cited of these works is Murray's 1984 book, *Losing Ground*. In this work, the author suggests that the expansion of federal welfare programs through the 1970s changed the incentives of the poor, making it "profitable for them to behave in the short term in ways that were destructive in the long term" (Murray 1984, 9). According to this view, the increasing generosity of federal welfare programs reinforced certain behaviors conducive to both the realization and perpetuation of poverty. For example, researchers argue that by increasing the benefits available to single women with children, such programs reduced the incentive for marriage among the poor, resulting in a proliferation of female-headed families and out-of-wedlock childbearing (Honig 1973; Ross and Sawhill 1975; Danzinger, Jakubson, Schwartz, and Smolensky 1982; Darity and Myers 1984; Ellwood and Bane 1985; Garfinkel and McLanahan 1986; Ozawa 1989; Moffitt 1990a, 1990b; An, Haveman, and Wolfe 1990; Duncan and Hoffman 1990, 1991). Researchers have also associated increasing welfare benefits with behavioral responses among males that were thought to more directly increase the formation and continuation of poverty, such as decreasing labor force participation by males and avoidance of low-wage work (Murray 1984, 1993; Meade 1986, 1992). Since poverty among female-headed families is generally more common and more severe than

among husband-wife families, the ideas underlying these works are particularly relevant to any discussion of extreme neighborhood poverty.

Although relationships between welfare benefits and poverty-related behavior have been found to exist, there is considerable debate regarding their significance, and much of this research has ignored the contextual influences of metropolitan economic change. In a comprehensive review of research focusing on the incentive effects of welfare on family structure and female labor supply, Moffitt (1992) concluded that such effects were not large enough to explain high rates of poverty.

Despite the considerable public attention that Murray's ideas have garnered, there has been little empirical evidence validating a direct link between increasing welfare benefits and urban poverty. More specifically, potential connections between welfare receipt and poverty at the neighborhood level have largely been overlooked in the literature. Eggers and Massey (1991) did investigate the impact of structural economic change and variation in levels of welfare payments on metropolitan-level poverty rates. They interpret their results to suggest that the value of government transfer payments had a positive impact on poverty rates among African-Americans, although not among Hispanics and whites. However, their structural equation model was cross-sectional in nature and indicated that overall metropolitan earning rates had stronger effects on poverty rates than all other variables considered. In county-level analysis, Jones and Kodras (1990) and Kodras and Jones (1991) found little support for the idea that the expansion of the welfare system had any positive effect on the feminization of poverty during the 1970s. Contrary to the conservative hypothesis, their work provided evidence that measures of public assistance expansion were linked to decreasing poverty among white females and similar measures had no significant impact at all on African-American females. In investigating state-level poverty among families headed by African-American females, Jones (1990) determined that the link between poverty and welfare receipt was contextually dependent on the availability and remunerative level of employment in various states. Jones's results suggest that any work-disincentive effect evident during the 1970s significantly decreased as the level of employment in better-paying occupations increased. Moreover, this research indicated that in states where unemployment was higher, AFDC benefits functioned to enhance income among such families, rather than increase poverty levels.

While these research efforts seem to invalidate the conservative hypothesis, they ignore the potential impact that welfare receipt may have on socioeconomic conditions at the *neighborhood* level. In short, ideas concerning the direct effect of welfare benefit payments on the geography of neighborhood poverty within the context of changing employment opportunity have remained largely unaddressed. I argue that any potential incentive effects related to increasing welfare receipt could be effectively recognized through a consideration of poverty changes at the neighborhood scale. The neighborhood focus is particularly relevant for a number of reasons. First, neighborhood contexts have been shown to directly affect individuals. A "neighborhood effects" literature has provided substantial empirical support for a variety of mechanisms that link individual behavior, economic outcomes, and specific neighborhood contexts (Jenks and Mayer 1990; Crane 1991; Brooks-Gunn et al. 1993; Duncan 1994; Green, Tigges, and Browne 1995). Such effects are thought to have particularly strong impacts on youths, who are most susceptible to behavioral patterns that may have long-term economic implications. In essence, the socioeconomic trajectory experienced by individuals may be partially influenced by the neighborhood environments within which they live. It is possible that individuals who reside within neighborhoods with high levels of welfare receipt would be more likely to receive welfare at some point them-

selves or to behave in a variety of other ways that may be more conducive to the realization of poverty. For instance, Jenks and Mayer (1990) have shown that growing up in an urban neighborhood with a high rate of welfare dependency reduces men's chances of finding well-paid jobs in adulthood.

A second reason that any incentive effects related to welfare receipt is relevant to the growth of neighborhood poverty relates to the residential geography associated with U.S. metropolitan areas. Due to substantial residential differentiation according to class and race, much of the metropolitan populations more likely to receive welfare would tend to cluster in low-income neighborhoods. If increases in welfare benefits lead to aggregate increases in poverty, such increases would most likely be more evident in certain poorer neighborhoods rather than distributed more evenly across urban residential space. Thus, lower-income individuals in any metropolitan area may be more susceptible to poverty due to both the general incentive effect of overall increases in welfare benefits and the independent neighborhood-specific effect of residing in certain residential environments where welfare is more common. For this reason, I argue that if there are incentive effects linking increases in welfare benefits to general increases in poverty, then such effects would result in increasing poverty at the neighborhood scale.

Additional Impacts on Poverty

In response to the work of Wilson and other works focusing on deindustrialization, a number of scholars have contended that much of the literature has overgeneralized the economic transformation within urban areas in the last few decades (Scott 1988; Hughes 1989a, 1989b, 1991; Moore and Laramore 1990; Suggs 1989; Johnson and Oliver 1991, 1992; Cooke 1999; Kodras 1997). Considering the overall research on deindustrialization, to date there has been only modest support for the idea that a declining manufacturing sector significantly affected the concentration of poverty at the neighborhood level. Possible links between poverty and changes within other economic sectors offering jobs requiring modest skill levels, such as retail trade, have not been considered to any large degree. Given the emergence of the service sector as a vital component of the so-called "postindustrial" economy, it is likely that dynamics within this sector may also register impacts at the neighborhood level. For example, Smith (1984) documented that service sector establishments accounted for 86 percent of all private sector employment growth during the 1970s. The fact that the retail sector was one of two categories in which four-fifths of that growth was concentrated means that understanding the relationships between retail dynamics and economic well-being remains critical (Smith 1984; Jones and Kodras 1990).

One additional dimension of economic restructuring that is especially relevant to the investigation of urban poverty involves fundamental changes in public sector employment (Suggs 1989; Johnson and Oliver 1991, 1992). By shifting public sector jobs, particularly those at the municipal level, to privately owned firms, governments have attempted to increase service efficiency and reduce costs (Fitzgerald 1988; Suggs 1989). This has often led to a reduction of the public sector labor force that has not been offset by employment increases in the private sector (Suggs 1989). Most importantly, this has reduced stable, long-term jobs offering moderate to high wages that traditionally have provided employment opportunities for minorities, especially African-Americans. Scholars have shown that the local government sector provided the greatest increase in the proportion of African-American workers from 1970 to 1980 (Eisinger 1983; Suggs 1989). Durden and Schwarz-Miller (1982) have also noted that as the percentage of people employed by government in a given locality increases income disparities between African-Americans and whites

decline. According to Suggs (1989), job losses as a result of privatization are largely concentrated among the least skilled and least senior employees, groups in which minorities often figure disproportionately. It is possible then that metropolitan areas experiencing significant decreases in public sector employment would be experiencing increases in the concentration of neighborhood poverty. Similar to the case of manufacturing/construction employment, this paper will not only consider the changing availability of public sector employment, but will also consider the relative importance of this employment activity within overall metropolitan economies. I hypothesize that the impacts of public sector employment dynamics on neighborhood poverty are conditioned by the base level of such employment prior to the onset of economic change. Those metropolitan areas having a higher percentage of total employment within the public sector at a given time would be more susceptible to the negative impacts associated with declines within this sector.

Research Context and Conceptual Framework

Main Hypotheses

Meeting the aforementioned goals of this research involves testing the following three main hypotheses.

Hypothesis 1: Metropolitan areas exhibiting fewer increases, or actual declines, in overall labor demand and employment availability will have experienced increases in neighborhood-level poverty. It is specifically hypothesized that the dynamics of the manufacturing/construction sector had an important impact on the growth or lack of growth in poverty, especially during the 1970s.

Hypothesis 2: Metropolitan areas associated with the increasing availability of public assistance benefits will have exhibited increases in poverty at the neighborhood level. Thus, this research tests the validity of the conservative hypothesis at the neighborhood scale.

Hypothesis 3: A *metropolitan contingency* effect that mediates the impact of economic processes on neighborhood-level poverty within specific metropolitan areas will be evident. It is hypothesized that neighborhood poverty levels have been affected by the *interaction* of local economic structures and broad forms of economic change, such as deindustrialization and public sector dynamics. I argue that such interactions have had impacts on poverty levels beyond that of the discrete economic process itself.

Data Sources and Sample

To examine the research questions guiding this investigation, data were collected and derived for a sample of the metropolitan statistical areas (MSAs) recognized by the U.S. Census in 1970. To ensure adequate representation of African-Americans and Hispanics for all metropolitan observations, a small number of MSAs were excluded from this sample. In addition, since most of the data were measured at the county level, a number of metropolitan areas (mostly in New England) defined by minor civil divisions rather than counties were also excluded. In order to facilitate comparisons over time, counties that were switched from one MSA to another over time were adjusted to reflect 1980 MSA boundaries.[2]

[2] No corrections were made for the addition of peripheral, formerly nonmetropolitan counties to metropolitan areas during any time period. In other words, the addition of counties for any MSA that was not designated a metropolitan county in previous years was considered real metropolitan growth. While this format led to changes in the geographic area, the expansion of jobs and people into the periphery of metropolitan areas are processes that are too important to disregard. Excluding additional counties that over time represent suburban growth would involve disregarding a nonrandom portion of the data.

Data for this study were collected and derived from four sources: the U.S. Census of Population and Housing for 1970, 1980, and 1990; the Census Summary Tape File (STF-3a) for 1980 and 1990; the Underclass Database (UDB); and the Bureau of Economic Analysis's Regional Information System (REIS). Population counts and mean household income data were collected from the U.S. Census files at the county level for each census year. Measures at the relevant metropolitan scale were then derived from these data. Data used to derive levels of neighborhood poverty at the census tract level were collected from the Underclass Database. This database provides data in a format which standardizes census tract boundaries.[3] The REIS data contain aggregate counts of full-time and part-time employment, by one-digit SIC code, across all counties. REIS data also contain transfer payments by major program at the county level. The employment classification scheme and the scheme used to represent government welfare payments used in this study were derived from this data and are explained below.

Measurements

Measuring Extreme Neighborhood Poverty. In this study I use a common methodology to designate what I refer to as extreme poverty neighborhoods: census tracts having poverty rates equal to or exceeding 40 percent (Danzinger and Gottschalk 1987; Greene 1991a, 1991b, 1994; Jargowsky 1994, 1996, 1997; Jargowsky and Bane 1990, 1991; Kasarda 1993; Mincy and Wiener 1993). Jargowsky and Bane (1991) determined that this measure provides an accurate representation of neighborhoods considered to be "ghetto," "slum," or "barrio" neighborhoods according to the subjective impressions of city residents, city officials, and other researchers. Following Jargowsky's (1997) measurement strategy, I measured extreme poverty in two distinct ways. First, I measured what he referred to as the *neighborhood poverty rate* (NPR), or the percentage of a metropolitan area's total population that resides within extreme poverty neighborhoods. Second, I measured what he referred to as the *concentration of the poor* (CPR), or the percentage of an MSA's poor population that resides in extreme poverty neighborhoods.[4] The NPR indicates the proportion of a metropolitan area's population who may or may not live below the poverty level, but who, at a minimum, must cope with the poverty around them. The CPR indicates the proportion of the metropolitan population who must cope with their own poverty, as well as that within their immediate neighborhood environment (Jargowksy 1997). Although these two measures are similar, they represent distinct conceptions of urban poverty and should provide answers to different questions. For example, while poverty may become more concentrated in certain neighborhoods, fewer numbers or proportions of people may be exposed to such conditions through the context of a residential environment. Likewise, as greater numbers or proportions of people become exposed to extreme poverty, poor households or individuals may or may not become more concentrated. In light of the "neighborhood effects" literature, a consideration of these measures of poverty is par-

[3] The UDB contains U.S. Census data at the tract level for 1970, 1980, and 1990. The data are standardized to fit 1980 census tract boundaries. In other words, data for the years 1970 and 1990 fit the 1980 boundaries.

[4] It is important to note that the term concentration in this context does not refer to population density. Extreme poverty neighborhoods are quite often less dense in terms of persons per areal unit because of high vacancy rates and the overabundance of vacant buildings (Jargowsky 1997). Rather, the concentration of poverty refers to the relative tendency of metropolitan poor to reside in neighborhoods where many of their neighbors also live below the poverty level, rather than being more evenly distributed across metropolitan space.

ticularly relevant (Crane 1991; Brooks-Gunn et al. 1993; Duncan 1994; Green, Tigges, and Browne 1995). These neighborhood measures were calculated separately for whites, African-Americans, and Hispanics for 1970, 1980, and 1990.

The way that the Census Bureau classified persons by race and ethnicity changed between 1970 and 1990. This research involved the creation of mutually exclusive categories by combining information on race and ethnicity to obtain numbers for non-Hispanic whites, non-Hispanic blacks, and Hispanics for 1970, 1980, and 1990. But the exact numbers of non-Hispanic whites in census tracts cannot be calculated from the publicly released 1970 data. This is because many Hispanics, or "people of Spanish origin," when answering the race question, may have classified themselves as white or black, or may have left the question unanswered. Thus, simply reporting the data for whites in general could include a number of Hispanics. To estimate the number of non-Hispanic whites in a consistent manner for 1970–90, I subtracted the number of African-Americans, Hispanics, and other minority groups from the total population in each geographic unit. Since few Hispanics are black, the resulting sum is a reasonably good estimate of non-Hispanic whites. In measuring trends in neighborhood poverty, I report the number of non-Hispanic whites as estimated by this procedure to facilitate comparison over time. I also was not able to separate Hispanics by subgroup (Mexican, Puerto Rican, Cuban) for each time period. This is a drawback, since Hispanic subgroups undoubtedly have very different regional patterns and neighborhood poverty levels. For the purpose of this analysis, and for the sake of comparison, these various population groups are aggregated under the more general term Hispanic. Another problem encountered when using race-specific data involves data suppression. Much of the race-specific data at the census tract level is suppressed to protect confidentiality. To overcome the problems created by suppression, I used standard procedures incorporated by Jargowsky and Bane (Jargowsky and Bane 1990, 1991; Jargowsky 1997).

Measuring Employment Availability. For this study, a consideration of employment availability involved measuring overall metropolitanwide labor demand and the metropolitanwide availability of employment within specific economic sectors. The white male adult unemployment rate was used to estimate overall demand for labor. This is an effective measure because it represents the rate that most accurately responds to labor market conditions. Changing overall labor demand was conceptualized as the temporal difference in this unemployment rate. The classification scheme used to differentiate among separate employment sectors was partially based on formats used in previous research (Browning and Singlemann 1978; Johnson and Oliver 1991, 1992). For the purpose of this study, specific industry classifications, designated by one-digit SIC codes, were used to derive the following specific employment sectors. *Transformative employment* was defined as employment within the combined manufacturing and construction industries; *distributive employment* was defined as employment within the combined transportation and wholesale trade industries; *producer services employment* was defined as employment within Finance, Insurance and Real Estate (FIRE) industries; and *retail employment* was defined as employment within the retail trade industry. *Public sector employment* was defined as the total civilian employment within the combined federal, state, and local government industries. The ratio of the total number of MSA jobs to the total working age MSA population was calculated for each of the four classified employment sectors and used to measure the relative employment prospects available to metropolitan populations.[5] Changing availability within these

[5] The working age population was defined as the total population between 16 and 64 years of age.

sectors was conceptualized as the difference over time in regard to these ratios.

Transformative employment represents employment activities that historically have provided opportunities for those with less skills and with lower levels of education, commonly thought of as "blue-collar" employment. The dynamics of employment within this sector is thought to have particular relevance to changes in urban poverty. For this reason, the proportion of total metropolitan employment within this sector was calculated for each of the three census years and will be referred to as the *transformative base level*. A similar measure, referred to as the *public sector base level*, was calculated for public sector employment and used to indicate the relative importance of this economic activity to overall metropolitan economies. In addition, these base-level factors were used to create two interaction variables indicating the conditional influence of the metropolitan employment base on the effect of change within both of these economic sectors.

Measuring Availability of Government Welfare Assistance. I used the changing value of government transfer payments to represent the effects of federal welfare policy on extreme neighborhood poverty. Most research on the impact of welfare programs has focused on the role of the now-abolished Aid to Families with Dependent Children (AFDC) program. While the real value of AFDC payments fell throughout the 1970s and 1980s, Moffitt (1990a, 1990b, 1992) has shown that states over time had increasingly substituted AFDC with Food Stamps and Medicaid in the total benefit package provided to female family heads. Thus, the total real package available to poor households may not have decreased as much as commonly thought. In fact, according to some researchers, the real value of welfare packages available to a portion of the poor may have actually increased (Moffitt 1990a, 1990b, 1992; Eggers and Massey 1991). At any rate, a strict focus on the value of AFDC benefits alone may understate the potential (dis)incentive effects attached to welfare payments (Moffitt 1990a, 1990b, 1992; Eggers and Massey 1991). For this reason, the value of total payments for all income maintenance benefits comprising the core of the transfer system for the low-income population, with the exception of public housing benefits, were included in this study. This included the combined value of family assistance income (AFDC), food stamps, and other general income maintenance assistance, including general, emergency, refugee, and energy assistance, foster care home payments, and the earned-income tax credit. These combined values were calculated at the metropolitan level for all three census years (1970, 1980, and 1990), with all monetary values standardized to represent 1980 U.S. dollars.[6]

Determining the relative value of welfare payments available within each metropolitan area also required a determination of the numbers of people eligible for such benefits. The eligibility requirements for welfare benefits varies substantially by state, and there is further variation in eligibility requirements between the different programs. Data indicating the exact number of families or individuals eligible in each MSA were not available, although the numbers of individual families living below the poverty line were available at the county level. Despite their poverty, many poor families are ineligible for such benefits. However, eligibility for all of the programs considered here is tied to income levels. While not a totally accurate indicator of benefit eligibility, the numbers of poor families represents the best proxy measurement for welfare eligibility available. Moreover, the purpose of this study was to investigate general trends, not to estimate specific changes in poverty associated with changes in the values of transfer

[6] All monetary values in this analysis represent 1980 values using the Consumer Price Index base formula, including the welfare benefit and mean household income values.

payments. The availability of *governmental welfare assistance* was defined as the ratio of the value of total family maintenance benefits for each MSA to the number of families below the poverty level within each MSA. Similar to employment availability, the temporal differences in this ratio were used to represent the changing availability of welfare benefits.

Measuring Demographic Composition, Population Change, and Mean Income Generation. The minority proportion of total metropolitan populations was calculated separately for African-Americans and Hispanics and used to consider the impact of racial and ethnic composition on neighborhood poverty levels. These figures were also calculated for all three census years, as was the MSA total population. Both total population levels and levels of population change were considered to be important to the changing levels of neighborhood poverty. *Population change* was measured as the percentage change in the total population during the relative time periods, while *metropolitan population* was simply the total population for each given census year. *Mean household income* values for each MSA were derived for total households and separately for white, African-American, and Hispanic households.

Description and Geographic Patterns of Neighborhood Poverty

The temporal and regional dimensions of neighborhood poverty growth in the relevant time period are illustrated in Table 1 and Figures 1 and 2. The maps only show the growth of neighborhood poverty rates (NPR), but the same general regional trends were evident in the growth of concentrated poverty rates (CPR). Table 1 includes the mean values of both neighborhood poverty rates and concentrated poverty rates for whites, African-Americans, and Hispanics for the entire sample of metropolitan areas. Note that the methodology used to account for temporal changes in metropolitan areas could introduce a small degree of measurement error that magnifies the appearances of regional shifts in poverty. This results from the decision to include peripheral counties that were not included within metropolitan areas in earlier years. This essentially allows the various study areas to expand over time, which alters the proportions of the poor and non-poor. As a result, MSAs that expanded considerably would likely exhibit fewer increases, or even decreases, in poverty rates due to the increasing total population. MSAs that did not expand would be more likely to exhibit proportional increases in poverty, simply because their base population would not increase as much. By disregarding such boundary changes, however, a significant subset of data would simply be ignored. Changes in the proportions of the poor and non-poor are a substantial part of the story, and including such changes more accurately gauges the changing metropolitan contexts. For example, the fact that a booming Sunbelt metro experiences declining poverty levels when compared to an MSA with a stagnant population count is a critical part of the poverty dynamic. More practically, ignoring boundary changes could very likely generate more error than omitting them.

Table 1 also illustrates mean values for three subsamples of the collection of MSAs: a regional sample used to represent the northern Rust Belt and the highest and lowest quartiles of the entire sample according to population size. Table 1-A shows that measures of CPR generally increased more, or decreased less, over time than measures of NPR. African-Americans exhibited the highest degree of extreme poverty in all three decades, followed by Hispanics and whites. On average, metropolitan areas experienced declines of white and African-American neighborhood poverty during the 1970s, with poverty among Hispanics increasing slightly according to both measures (Table 1-A). This trend was followed by general

Table 1

Mean Neighborhood Poverty among MSAs (Percentages)

A. Total Metropolitan Sample (205 MSAs)

	1970	1980	1990	1970–80	1980–90	1970–90
NPR-W[a]	2.16	1.44	2.80	–0.74	1.36	0.62
CPR-W	4.53	4.10	8.26	–0.45	4.54	3.71
NPR-A	14.41	10.53	16.93	–3.98	6.40	2.42
CPR-A	18.80	16.88	26.13	–2.06	9.25	7.19
NPR-H	4.84	5.04	8.35	0.14	3.31	3.45
CPR-A	8.59	9.76	14.99	1.13	5.23	6.36

B. North MSA Subsample (71 MSAs in Middle Atlantic and East North Central Census Regions)

	1970	1980	1990	1970–80	1980–90	1970–90
NPR-W	0.86	1.118	2.27	0.32	1.09	1.41
CPR-W	2.14	4.06	8.28	1.92	4.23	6.14
NPR-A	5.03	10.48	17.96	5.45	7.48	12.93
CPR-A	7.65	17.51	27.85	9.86	10.34	20.20
NPR-H	2.11	5.30	9.76	3.18	4.47	7.65
CPR-A	4.09	9.41	17.32	5.32	7.92	13.24

C. Top Quartile by 1980 Population Size (51 MSAs; mean 1980 population = 2,051,061)

	1970	1980	1990	1970–80	1980–90	1970–90
NPR-W	0.86	0.72	0.98	–0.14	0.26	0.12
CPR-W	2.72	2.70	4.50	–0.02	1.80	1.78
NPR-A	12.34	12.98	15.86	0.64	2.88	3.52
CPR-A	20.56	23.60	28.46	3.04	4.86	7.90
NPR-H	3.48	6.12	7.16	2.64	1.04	3.68
CPR-A	8.40	12.96	15.24	4.56	2.28	6.84

D. Bottom Quartile by 1980 Population Size (51 MSAs; mean 1980 population = 124,623)

	1970	1980	1990	1970–80	1980–90	1970–90
NPR-W	2.63	2.24	4.86	–0.39	2.63	2.24
CPR-W	4.43	5.37	12.08	0.94	6.71	7.65
NPR-A	13.55	8.18	19.88	–5.37	11.70	6.33
CPR-A	15.31	10.90	26.25	–4.41	15.35	10.94
NPR-H	6.04	4.73	11.25	–1.67	6.88	5.22
CPR-A	11.39	6.92	17.53	–4.47	10.61	6.14

Source: U.S. Bureau of the Census (1970, 1980, 1990); Underclass Database (1993).

[a] NPR-W = white neighborhood poverty rate; CPR-W = white concentrated poverty rate; NPR-A = African-American neighborhood poverty rate; CPR-A = African-American concentrated poverty rate; NPR-H = Hispanic neighborhood poverty rate; CPR-H = Hispanic concentrated poverty rate.

increases in poverty among all three groups in the 1980s, with poverty indicators increasing most significantly among African-Americans. While whites experienced the lowest magnitude of increase during 1970–80, in 1980 both poverty indicators were double that of the 1970 values for this racial group.

Some variation in neighborhood poverty growth is evident when considering racial differences and the influence of metropolitan population size. In the 1970s the 51 largest MSAs exhibited trends that ran opposite to those exhibited by the entire metropolitan sample (Table 1-C). White poverty decreased less in these larger MSAs, whereas African-American poverty increased. Hispanics exhibited even larger increases than was evident within the entire sample, and such increases were higher than those experienced by African-Americans. In 1970, levels of poverty

among African-Americans and Hispanics in larger MSAs were not much different than the poverty in the average metropolitan area, but by 1980 neighborhood poverty among these minority groups was much more severe in these larger metropolitan areas.

Minority poverty decreased substantially in smaller metropolitan areas during the 1970s, but white neighborhood poverty rates (NPR-W) decreased only slightly. Furthermore, these smaller MSAs experienced slight *increases* in measures of CPR among whites during this decade (Table 1-D). Whites thus experienced fewer decreases, or more increases, in poverty in both the smallest and largest metropolitan areas than was the case for the entire metropolitan sample. During the 1980s both measures of neighborhood poverty increased for all racial groups within smaller MSAs, with all such increases exceeding the averages for the entire metropolitan sample. Meanwhile, larger metropolitan areas evidenced fewer poverty increases than was typical overall (Table 1-C). In short, while neighborhood poverty growth was primarily associated with larger metropolitan areas in the 1970s, the 1980s saw smaller metropolitan areas exhibiting higher levels of such growth.

Figures 1 and 2 and Table 1-B indicate a profound regional dimension to neighborhood poverty growth, particularly during the 1970s. Table 1-B includes the mean poverty values for a subset of MSAs that lie within the U.S. Census–defined Mid-Atlantic and East North Central census divisions. This subset is used here to represent the "manufacturing belt" or Rust Belt, the region known for dominance within the transformative economic sector. The impact of the 1970–80 economic decline in the Rust Belt was apparent in the growth of neighborhood poverty during the decade. In 1970, metropolitan areas within this region exhibited neighborhood poverty rates that were significantly lower than the average rate for the entire metropolitan sample. During the following ten years, the region experienced substantial growth in poverty, particularly among minorities. In contrast, much of the southern Sunbelt, with a few exceptions, experienced declining poverty among African-Americans and whites (Fig. 1). While decreases in poverty among Hispanics were also associated with a number of metropolitan areas in the South, this group did experience substantial increases in the majority of MSAs in the South Atlantic states (Fig. 1).

A shift in the regional dimension of poverty growth occurred during the 1980s. The western portion of the Rust Belt region, including metropolitan areas in such states as Illinois, Indiana, Michigan, Ohio, and Wisconsin, continued to experience substantial increases in neighborhood poverty during the 1980s (Fig. 2). However, over the course of this decade much of the metropolitan Northeast had experienced a significant economic recovery from the earlier decline. Consequently, a number of metropolitan areas in the Northeast, such as New York, Philadelphia, and Newark, exhibited a decline in minority poverty at the neighborhood level. At the same time, many MSAs in the formerly prospering region extending along the Gulf Coast through Texas experienced substantial increases in neighborhood poverty for all racial groups. The collection of metropolitan areas in California also experienced such increases. In summary, the regional contrast that existed earlier between the Rust Belt and the Sunbelt in regard to poverty growth was less evident in this later decade. This is especially true for the growth of white poverty, as this racial group exhibited at least slight increases in neighborhood-level poverty in most MSAs during the 1980s.

Methodology and Model Formulation

The concepts, variables, and specific measurement strategies employed in this analysis are summarized in Table 2. A series of multivariate regression models were constructed, with the temporal differ-

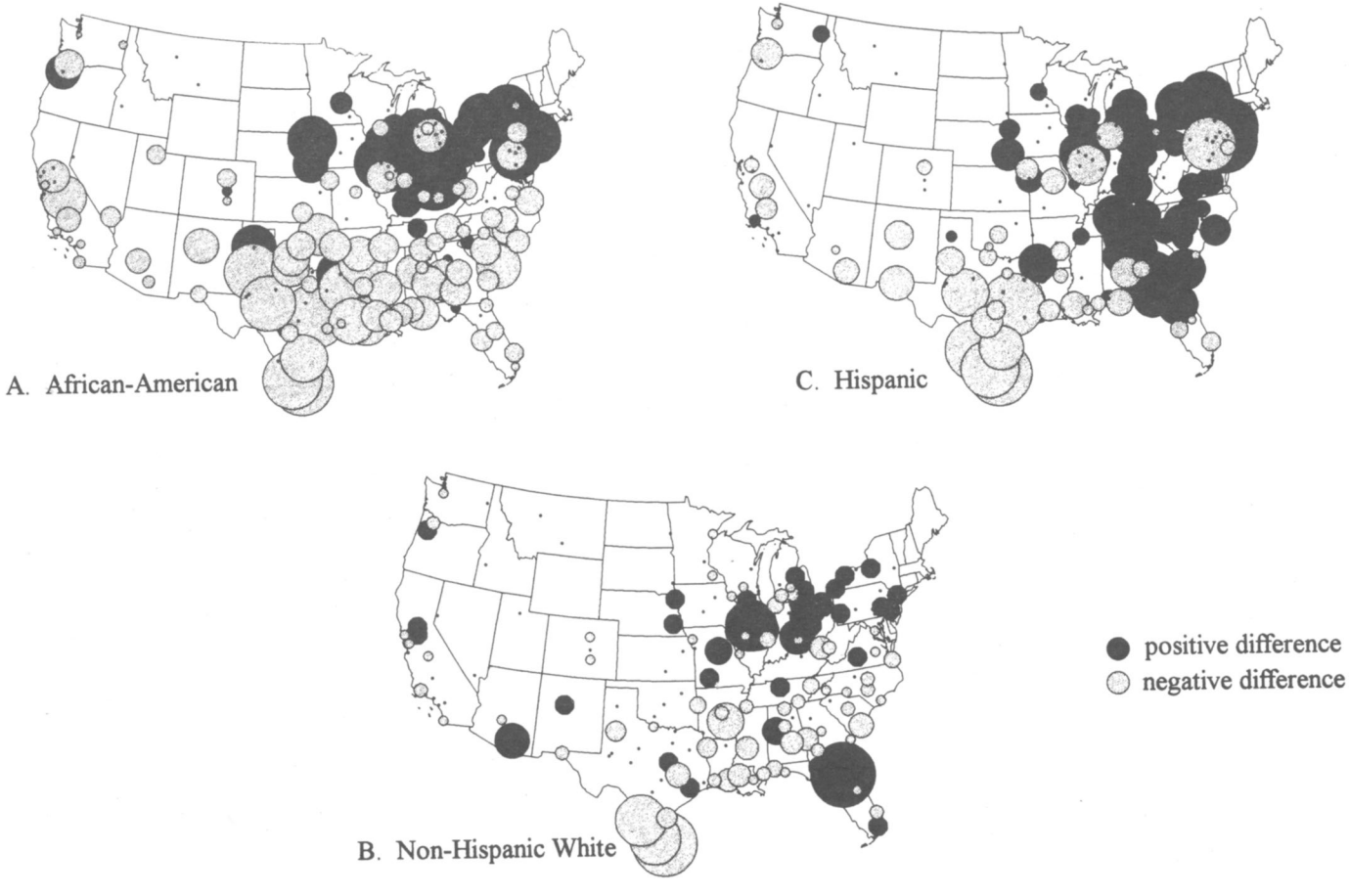

Figure 1. Difference in neighborhood poverty rates (NPR) among racial/ethnic groups, 1970–1980. Measured as the arithmetic difference (1980–1970) in the proportion of each racial/ethnic group residing within extremely poor neighborhoods (i.e., with poverty rates of 40% or more). *Source*: U.S. Bureau of the Census (1970, 1980).

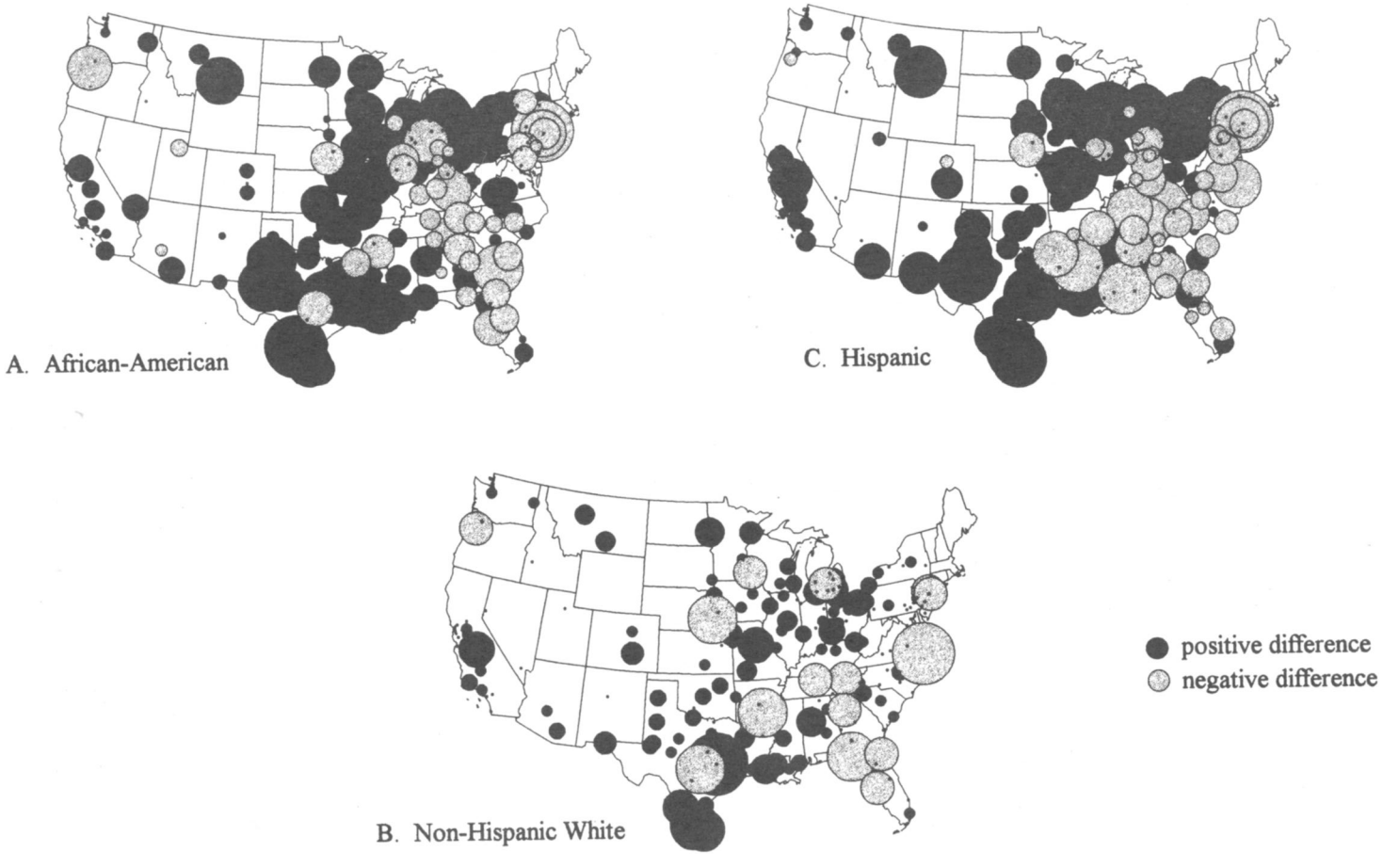

Figure 2. Difference in neighborhood poverty rates (NPR) among racial/ethnic groups, 1980–1990. Measured as the arithmetic difference (1990–1980) in the proportion of each racial/ethnic group residing within extremely poor neighborhoods (i.e., with poverty rates of 40% or more). *Source*: U.S. Bureau of the Census (1980, 1990).

ences in the measures of Neighborhood Poverty Rate (NPR) and Concentrated Poverty Rate (CPR) serving as dependent variables. Changes in the various measures of employment availability, welfare availability, mean income, and demographic composition served as independent variables. The following additional variables were measured cross-sectionally: MSA population, transformative base level, and public sector base level. This enabled recognition of the relationships between poverty growth and two important metropolitan characteristics: population size and the relative employment structure. The variable indicating the interaction of changing transformative employment availability and transformative base level was labeled Deindustrial Change. The variable indicating the interaction of changing public sector employment availability and public sector base level was labeled Public Sector Change. The final independent variable used was the base level value (1970 or 1980) of the poverty measure in question—that is, NPR or CPR. The complete set of independent variables was related to changes in the two poverty measures among whites, African-Americans, and Hispanics for both time periods—1970 to 1980 and 1980 to 1990. This same process was performed for the 20-year time period, as well.

Various degrees of multicollinearity existed among some of the measures of employment availability listed in Table 2. For this reason, some of the employment measures were not used within the models presented in this paper. The strategy used to deal with this problem involved considering the simple correlations between the two poverty measures and each separate employment measure. The relative impacts realized through the inclusion or exclusion of the various employment indicators within the multivariate models were also considered. Changes in FIRE employment availability were not significantly related to changing poverty in any instance and were thus not used. In order to simplify presentation, I only present the results of models that most thoroughly account for changes in neighborhood poverty. Multicollinearity was particularly evident among the interaction terms and the variables used to derive them. In order to reduce this problem, a centering transformation was performed on the original variables that involved subtracting the mean value for each variable from each observation prior to deriving interaction effects. This procedure maintains the variance among the variables yet reduces multicollinearity.

Results of Analysis

Poverty Changes from 1970 to 1980

The results of the multivariate regression procedures analyzing changes in neighborhood poverty during the 1970s are listed in Tables 3 through 5. These results highlight the importance of transformative employment change as a causal factor in neighborhood poverty growth, especially among African-Americans. Besides promoting poverty concentration, declines in the availability of transformative employment had significant impacts on both measures of African-American poverty during the decade. Further, the coefficients associated with the interaction variable (Deind) suggest that a strong transformative base had a conditioning effect on employment change within this economic sector. This indicates that metropolitan areas having a larger proportion of transformative employment in 1970 experienced additional effects of employment change related to the employment base conditions prior to the onset of such change. Thus, African-American poverty was directly affected by transformative employment change and by the conditional effect of this change within the context of such an economic base. It is also noteworthy that African-Americans were the only racial group whose poverty levels fluctuated with overall labor demand.

Table 2

Variables and Specific Measurements

Concepts and Variables	Measurement Strategy
Dependent variables (difference over time)	
Neighborhood poverty rate (NPR)	Proportion of MSA population residing in census tracts with poverty rates of 40% or more
Concentrated poverty rate (CPR)	Proportion of MSA poor residing in census tracts with poverty rates of 40% or more
Independent variables (difference over time)	
Total labor demand (Unemployment)	White male unemployment rate
Transformative employment availability (Trans Emp/Pop)	Total employment within the combined manufacturing and construction industries divided by the working age population[a]
Distributive employment availability (Dist Emp/Pop)	Total employment within the combined transportation and wholesale trade industries divided by the working age population
Retail employment availability (Ret Emp/Pop)	Total retail employment divided by the working age population
FIRE employment availability (FIRE Emp/Pop)	Total finance, insurance, and real estate employment divided by the working age population
Total government employment (Gov Emp/Pop)	Total federal, state, and local government employment divided by the working age population
Welfare availability (Wel/Pov)	Total value ($) of family maintenance benefits divided by the number of families below poverty level[b]
Mean household income by race (Mean HH income)	Mean income for white, African-American, and Hispanic households
Minority/MSA mean household income (Afr-Am/MSA Inc. and Hisp/MSA Inc.)	Mean minority household income divided by the MSA mean household income (for both African-American and Hispanic households)
Percent minority (% Afr-Am and % Hispanic)	African-American and Hispanic % of total MSA population
Percent population change (Pop Growth)[c]	Percent change between two time periods
Independent variables (cross-sectional; base-level measures)	
Transformative base level (Trans Base)	Percent of total employment within the transformative sector at beginning of decade (1970 or 1980)
Public sector base level (Public Base)	Percent of total employment within the public sector at beginning of decade (1970 or 1980)
MSA population size (1970 Pop or 1980 Pop)	MSA population at beginning of decade (1970 or 1980)
Neighborhood poverty base level (NPR/CPR)	Neighborhood poverty rate (NPR) or concentrated poverty rate (CPR) at beginning of decade (1970 or 1980)
Independent variables (interaction terms)	
Deindustrial change (Deind)	(Trans Base * Trans Emp/Pop) = interaction of transformative base level and changing availability of transformative employment
Public sector change (Gov)	(Public Base * Gov Emp/Pop) = interaction of public sector base level and changing availability of public sector employment

[a] Working age population defined as total population between 16 and 65 years of age.

[b] Welfare benefits include values of AFDC, food stamps, and other income maintenance payments; all standardized to 1980 U.S. dollars.

[c] Measured as the % change in population over time, not the temporal difference.

Table 3

Multiple Regression Models of Change in Neighborhood Poverty among African-Americans, 1970–1980

	NPR		CPR	
Variable[a]	b	Beta (Standardized Coefficients)	b	Beta (Standardized Coefficients)
Unemployment	.913 (.483)**	.108	1.497 (.722)**	.145
Trans Base	13.12 (9.49)	–.150	69.31 (59.22)*	.169
Trans Emp/Pop	–34.61 (26.61)*	–.085	–29.37 (14.23)*	–.156
Deind (interaction)	–63.36 (48.32)*	–.170	–56.49 (35.88)*	–.171
Dist Emp/Pop	40.49 (121.2)	.017	58.75 (182.11)	.020
Retail Emp/Pop	–154.36 (122.8)	–.070	–157.67 (181.44)	–.058
Public Base	13.55 (83.4)	.009	–28.84 (124.69)	–.016
Gov Emp/Pop	.348 (12.7)	.001	2.49 (18.88)	.008
Gov (interaction)	–418.53 (950.8)	–.024	–181.06 (1418.4)	–.009
Wel/Pov	–55.50 (90.5)	–.011	–116.7 (121.3)	–.019
Mean HH Income	–95.17 (103.3)	–.054	–131.4 (145.9)	–.061
Afr-Am/MSA Inc.	.283 (1.56)	.009	.738 (2.32)	.020
% Afr-Am	5.44 (4.33)	.012	9.39 (3.22)	.087
% Hispanic	7.78 (11.24)	.023	11.23 (15.23)	.112
1970 Pop	134.2 (.000)**	.129	240.9 (.000)**	.188
Pop Growth	–.788 (3.27)	–.011	1.446 (4.88)	.087
NPR/CPR (1970)	–.702 (.040)**	–.685	–.609 (.051)**	–.664
Constant	5.83 (2.89)**		6.96 (4.32)**	
F	28.679**		15.718**	
Adjusted *R*-Square	.699		.552	

Notes: All parameters estimated by Ordinary Least Squares (OLS); standard errors are in parentheses. All variables measured as arithmetic change unless otherwise noted.

[a] Refer to Table 2 for definitions.

* Significant at $p < .05$.

** Significant at $p < .01$.

Economic impacts on poverty growth among whites and Hispanics were strictly limited to sector-specific dynamics (Tables 4 and 5). Poverty among both of these groups also increased in metropolitan areas having a strong transformative economic base in 1970. Neither group was affected by the changing availability of transformative employment per se, but neighborhood poverty among whites was impacted when such changes occurred in the context of an economic structure strongly focused on this form of employment. Unexpectedly, metropolitan areas having a strong public sector employment base exhibited increases in neighborhood poverty among Hispanics and whites, as well. Increasing poverty among Hispanics was further related to the increasing availability of public sector employment. The only other form of employment dynamic with consequences for poverty growth among any group was related to the retail sector. Neighborhood poverty rates (NPR) among Hispanics declined in metropolitan areas with increasing job availability within this sector.

Changes in measures of income generation and population size had racially specific impacts on neighborhood poverty during the decade. An important result illustrated in Table 4 is the relationship

Table 4

Multiple Regression Models of Change in Neighborhood Poverty among Non-Hispanic Whites, 1970–1980

	NPR		CPR	
Variable[a]	b	Beta (Standardized Coefficients)	b	Beta (Standardized Coefficients)
Unemployment	– 4.16 (.092)	.059	–.229 (.247)	–.073
Trans Base	3.06 (1.81)*	.089	9.76 (4.84)**	.173
Trans Emp/Pop	–12.22 (8.79)	–.077	–26.11 (23.61)	–.101
Deind (interaction)	–46.91 (19.79)*	–.087	–78.74 (87.46)	–.030
Dist Emp/Pop	18.11 (23.08)	.034	23.13 (62.01)	.026
Retail Emp/Pop	8.26 (22.49)	.017	79.45 (60.41)	.101
Public Base	16.50 (2.59)**	.286	38.42 (7.02)**	.408
Gov Emp/Pop	–1.93 (15.56)	–.006	–22.29 (41.75)	–.041
Gov (interaction)	84.49 (179.7)	.021	75.88 (482.5)	.117
Wel/Pov	–87.70 (.000)*	–.101	–81.56 (.000)*	–.106
Mean HH Income	–853.5 (.000)*	–.075	–215.95 (.000)*	–.116
% Afr-Am	7.99 (7.63)	.123	11.34 (16.32)	.198
% Hispanic	11.43 (8.24)	.008	17.23 (9.23)	.101
1970 Pop	35.93 (316.5)	.015	184.7 (234.4)	.047
Pop Growth	.925 (.634)	.059	1.43 (1.74)	.056
NPR/CPR (1970)	–.611 (.027)**	–.785	–.400 (.048)**	–.550
Constant	.510 (.546) **		1.15 (1.47)**	
F	46.23**		9.17**	
Adjusted *R*-Square	.767		.373	

Notes: Refer to Table 3.

[a] Refer to Table 2 for definitions.

* Significant at $p < .05$.

** Significant at $p < .01$.

between the changing value of welfare benefits and white poverty. Metropolitan areas associated with increasing welfare benefits exhibited *decreases* in both measures of neighborhood-level poverty among this group. Both measures of white poverty growth were also negatively related to changes in mean household income. It is noteworthy that measures of poverty growth among the two racial minorities were not significantly influenced by either the changing availability of welfare benefits or changes in household income. Meanwhile, metropolitan population size and population growth rates were strictly related to the growth of minority poverty. Both measures of poverty growth among the two minority groups increased significantly in larger metropolitan areas. Hispanic poverty also became increasingly concentrated (CPR) in metropolitan areas exhibiting more substantial population growth through the decade.

Finally, as indicated by the magnitude of the standardized coefficients, the metropolitan characteristic with the largest statistical effect on the growth of neighborhood poverty, irrespective of how it was measured, was the base-level poverty measure. The 1970 base-level measures (NPR or CPR) were negatively related to poverty growth for all three groups, with the standardized coefficients being quite large and highly significant. This suggests that neighborhood poverty growth did not occur most dramatically in those metropolitan areas already exhibiting high rates of poverty in 1970, but that it became more of a general metropolitan phenomenon over the course of the decade.

Table 5

Multiple Regression Models of Change in Neighborhood Poverty among Hispanics, 1970–1980

	NPR		CPR	
Variable[a]	b	Beta (Standardized Coefficients)	b	Beta (Standardized Coefficients)
Unemployment	.306 (.314)	.331	.515 (.630)	.507
Trans Base	7.34 (5.84)*	.088	11.09 (11.72)	.067
Trans Emp/Pop	-12.14 (29.37)	-.031	-9.76 (59.11)	-.012
Deind (interaction)	169.47 (230.26)	.042	20.81 (460.66)	.003
Dist Emp/Pop	76.85 (76.33)	.060	8.79 (153.48)	.003
Retail Emp/Pop	-136.49 (75.77)*	-.114	-21.46 (151.55)	-.091
Public Base	13.87 (7.63)*	.104	33.22 (15.28)**	.125
Gov Emp/Pop	103.04 (52.35)*	.132	301.24 (103.97)*	.194
Gov (interaction)	-88.24 (597.82)	-.088	187.2 (1194.3)	-.102
Wel/Pov	1501.1 (.000)	.078	2458.4 (.000)	.064
Mean HH Income	-283.64 (296.8)*	-.014	-50.29 (55.67)*	-.012
% Afr-Am	9.65 (14.33)	.102	11.55 (19.26)	.076
% Hispanic	11.34 (5.34)	.088	10.01 (7.88)	.061
1970 Pop	112.2 (.000)**	.201	219.5 (.000)**	.196
Pop Growth	2.89 (2.04)	.077	10.536 (4.08)**	.144
NPR/CPR (1970)	-.559 (.041)**	-.762	-.706 (.047)**	-.775
Constant	1.902 (1.87)*		4.42 (3.61)*	
F	18.19**		17.90**	
Adjusted *R*-Square	.591		.594	

Notes: Refer to Table 3.

[a] Refer to Table 2 for definitions.

* Significant at $p < .05$.

** Significant at $p < .01$.

Poverty Changes from 1980 to 1990

The results of the analysis of changes in neighborhood poverty during the 1980s are listed in Tables 6 through 8. The measures of economic and demographic change generally accounted for less variation in poverty growth than was the case for the 1970s. The primary factors underlying the growth of poverty during the 1980s also varied from the earlier decade. Changing job availability within the transformative sector was not significantly related to poverty growth for any group during the decade. However, the interaction terms again suggest that employment change within this sector, when conditioned by a strong transformative economic base, still significantly impacted poverty growth among African-Americans and whites.

Aside from the contingent role of transformative employment, during the 1980s employment within other sectors also provided important opportunities for African-Americans. Poverty levels among this racial minority were directly related to the changing availability of employment within both the distributive and retail sectors. The results indicate that poverty levels among African-Americans were also linked to public sector dynamics, albeit in complex ways. Both measures of African-American poverty were positively related to the increasing availability of public sector employment during the 1980s, with the standardized coefficients indicating relationships that were quite strong. However, the coefficients for the public sector inter-

Table 6

Multiple Regression Models of Change in Neighborhood Poverty among African-Americans, 1980–1990

	NPR		CPR	
Variable[a]	b	Beta (Standardized Coefficients)	b	Beta (Standardized Coefficients)
Unemployment	.647 (.501)	.111	.484 (.661)	.062
Trans Base	12.21 (12.34)	.090	9.77 (16.35)	.054
Trans Emp/Pop	–93.53 (66.42)	–.151	–135.69 (87.75)	–.164
Deind (interaction)	–604.37 (539.29)*	–.184	–1143.5 (715.8)*	–.181
Dist Emp/Pop	–219.8 (104.8)*	–.170	–253.61 (138.16)*	–.147
Retail Emp/Pop	–100.62 (50.89)*	–.104	–6.86 (51.32)	–.004
Public Base	12.74 (15.78)	.066	12.52 (20.66)	.049
Gov Emp/Pop	342.55 (122.3)**	.322	427.5 (160.22)**	.301
Gov (interaction)	–190.51 (92.37)*	–.210	–208.3 (121.75)*	–.172
Wel/Pov	–98.4 (100.1)	–.058	–22.37 (48.77)	–.099
Mean HH Income	–14.72 (26.7)	–.122	–19.16 (210.6)	–.199
% Afr-Am	.654 (1.612)	.031	1.48 (2.12)	.053
% Hispanic	.456 (.249)	.116	.599 (.329)	. 114
1980 Pop	–803.5 (100.6)	–.084	–37.51 (105.4)	–.029
Pop Growth	1.86 (4.05)	.035	3.07 (5.33)	.043
NPR/CPR (1980)	–.353 (.071)**	–.325	–.373 (.062)**	–.398
Constant	12.08 (2.00)**		16.76 (2.64)**	
F	4.52**		4.89**	
Adjusted *R*-Square	.241		.260	

Notes: Refer to Table 3.

[a] Refer to Table 2 for definitions.

* Significant at $p < .05$.

** Significant at $p < .01$.

action term (Gov) suggest that the impact of public sector employment change on poverty growth was significantly modified by the nature of metropolitan economic structure. In general, increases in the availability of public sector employment were linked to increasing African-American poverty at the neighborhood level. The opposite was true for metropolitan areas having strong public sector economic bases at the beginning of the decade. Within such contexts, increases in the availability of government jobs were significantly related to *decreasing* neighborhood poverty among this group.

Table 7 provides further empirical evidence that white poverty had increasingly become a smaller metropolitan phenomenon during this later decade. Both measures of white poverty were negatively related to 1980 population size. One measure of white poverty also fluctuated with changes in overall labor demand during the 1980s. Aside from the contingent impact of transformative employment change, poverty levels among whites were also directly related to two measures characterizing metropolitan economic structure—the proportions of employment within both the transformative and public sectors. The only form of sector-specific employment change having a direct effect on white poverty during the decade was the increasing availability of jobs within the retail sector.

The important role that metropolitan structure has in modifying the impact of public sector employment change is fur-

Table 7

Multiple Regression Models of Change in Neighborhood Poverty among Non-Hispanic Whites, 1980–1990

	NPR		CPR	
Variable[a]	b	Beta (Standardized Coefficients)	b	Beta (Standardized Coefficients)
Unemployment	.232 (.131)*	.154	.355 (.282)	.011
Trans Base	7.39 (3.31)*	.204	12.38 (7.33)*	.162
Trans Emp/Pop	14.65 (17.80)	.088	9.78 (39.5)	.028
Deind (interaction)	–221.5 (45.7)*	–.114	–273.6 (32.9)*	–.107
Dist Emp/Pop	7.57 (27.8)	.022	46.8 (61.8)	.065
Retail Emp/Pop	–57.8 (26.4)*	–.191	–149.7 (58.9)**	–.235
Public Base	11.8 (4.91)**	.229	30.8 (10.8)**	.285
Gov Emp/Pop	29.2 (32.7)	.102	88.4 (72.7)	.147
Gov (interaction)	–179.1 (251.9)	–.073	–114.9 (255.7)	–.100
Wel/Pov	–49.25 (101.5)	–.090	–514.9 (557.5)	–.105
Mean HH Income	–64.08 (83.65)	–.111	–213.83 (.000)*	–.176
% Afr-Am	1.23 (.068)	.012	.177 (.151)	.080
% Hispanic	7.00 (.064)	.077	.190 (.142)	. 099
1980 Pop	–265.1 (.000)*	–.103	–680.67 (.000)*	–.126
Pop Growth	1.28 (1.11)	.089	2.82 (2.44)	.093
NPR/CPR (1980)	.284 (.080)**	.289	107 (.070)	.126
Constant	2.07 (.531)**		6.62 (1.20)**	
F	4.28**		2.72**	
Adjusted *R*-Square	.229		.206	

Notes: Refer to Table 3.

[a] Refer to Table 2 for definitions.

* Significant at $p < .05$.

** Significant at $p < .01$.

ther illustrated by Table 8. Hispanic poverty levels were positively related to both the proportion of metropolitan employment within the public sector and the increasing availability of such employment. Nevertheless, the interaction terms suggest that in certain contexts poverty levels among this minority declined as a result of the increased availability of public sector jobs. These findings thus indicate that the public sector provides important employment opportunities for Hispanics, as well as functioning as a valuable employment niche for African-Americans. The only other form of employment change that negatively affected Hispanic poverty was the increasing availability of distributive employment. Population size or overall growth rates had no effect on Hispanic poverty levels during the decade, yet poverty among this group significantly increased within metropolitan areas exhibiting proportional increases in the African-American population.

Neighborhood poverty growth in the 1980s continued to be significantly related in some form to the base-level poverty measures, although the strength of these relationships had generally weakened compared to the earlier decade. Poverty growth among African-Americans and Hispanics increased more significantly in MSAs having lower levels of poverty in 1980. The opposite was true in regard to the white neighborhood poverty rate (NPR). This measure of white poverty increased most dramatically in MSAs with higher levels of white poverty at the beginning of the

Table 8

Multiple Regression Models of Change in Neighborhood Poverty among Hispanics, 1980–1990

	NPR		CPR	
Variable[a]	b	Beta (Standardized Coefficients)	b	Beta (Standardized Coefficients)
Unemployment	.152 (.399)	.037	.155 (.650)	.022
Trans Base	13.97 (10.19)	.142	17.69 (16.7)	.104
Trans Emp/Pop	–62.12 (56.58)	–.137	–126.5 (92.5)	–.162
Deind (interaction)	–391.54 (443.9)	–.075	–103.7 (730.4)	–.012
Dist Emp/Pop	–149.1 (85.5)*	–.159	–93.9 (139.8)	–.058
Retail Emp/Pop	–89.7 (82.1)	–.109	–146.8 (134.1)	–.104
Public Base	24.3 (14.2)*	.173	48.7 (23.4)*	.201
Gov Emp/Pop	221.1 (102.1)*	.288	434.8 (167.2)**	.328
Gov (interaction)	–129.17 (77.64)*	–.199	–231.05 (127.14)*	–.207
Wel/Pov	–93.89 (101.3)	–.078	–16.15 (81.6)	–.078
Mean HH Income	–68.09 (69.1)	–.002	–54.47 (65.8)	–.100
% Afr-Am	.214 (.235)	.065	.745 (.385)*	.131
% Hispanic	.319 (.194)	.129	.382 (.321)	.090
1980 Pop	–68.09 (71.3)	–.099	–10.14 (19.3)	–.009
Pop Growth	1.57 (3.36)	.040	–1.55 (.650)	.082
NPR/CPR (1980)	–112 (.083)	–.108	–.389 (.081)**	–.368
Constant	4.76 (1.55)**		10.58 (2.55)**	
F	1.991**		3.279**	
Adjusted *R*-Square	.135		.196	

Notes: Refer to Table 3.

[a] Refer to Table 2 for definitions.

* Significant at $p < .05$.

** Significant at $p < .01$.

decade (Table 7). A final important finding evident in Tables 6 through 8 is the lack of any relationship between changes in welfare availability and any form of neighborhood poverty during the decade.

Poverty Changes from 1970 to 1990

Tables 9 through 11 list the results from models analyzing changes in neighborhood poverty from 1970 to 1990. Some of the same relationships, or lack of relationships, evident in the models reported earlier also existed when considering this longer time frame. Three specific observations merit consideration. First, African-Americans were the only racial group whose neighborhood poverty levels were significantly related to 20-year changes in the transformative sector, although such relationships were only evident in certain contexts. African-Americans were also unique from Hispanics and whites in that both forms of poverty among this group responded to 20-year changes in overall labor demand. Second, the only form of sector-specific employment change having direct impacts on poverty levels involved changes within the retail sector. During the course of the 20-year period, the increasing availability of retail employment was directly associated with decreasing poverty among both African-Americans and whites. Third, the strong negative relationships between the dependent variable and base-level poverty measures were significant for all three racial groups. Over the 20-year period, poverty increased most dramatically out-

Table 9

Multiple Regression Models of Change in Neighborhood Poverty among African-Americans, 1970–1990

	NPR		CPR	
Variable[a]	b	Beta (Standardized Coefficients)	b	Beta (Standardized Coefficients)
Unemployment	1.17 (.539)*	.117	1.984 (.733)**	.158
Trans Base	13.12 (9.49)	.069	16.69 (15.10)	.082
Trans Emp/Pop	48.25 (45.63)	–.137	55.19 (62.19)	.073
Deind (interaction)	–384.6 (31.46)*	–.068	–68.49 (43.85)*	–.095
Dist Emp/Pop	48.63 (91.29)	.026	53.12 (124.8)	.022
Retail Emp/Pop	–149.69 (92.13)*	–.087	–96.17 (26.03)*	–.044
Public Base	–417.77 (700.82)	–.036	–653.73 (958.52)	–.046
Gov Emp/Pop	105.24 (83.24)	.083	129.30 (113.77)	.081
Gov (interaction)	8.48 (14.47)	.032	7.58 (19.65)	.023
Wel/Pov	–50.32 (101.3)	–.015	–9.83 (11.0)	–.022
Mean HH Income	–164.8 (.000)	–.357	–197.6 (.000)**	–.341
% Afr-Am	4.43 (16.23)	.031	19.44 (35.56)	.111
% Hispanic	9.97 (11.11)	.099	15.99 (21.60)	.088
1970 Pop	90.2 (.000)*	.082	185.8 (.000)**	.013
Pop Growth	.976 (26.2)	–.043	2.49 (2.56)	.054
NPR/CPR (1970)	–.702 (.049)**	–.743	–.691 (.055)**	–.695
Constant	18.58 (3.66)**		23.58 (4.99)**	
F	25.33**		19.56**	
Adjusted *R*-Square	.671		.609	

Notes: Refer to Table 3.

[a] Refer to Table 2 for definitions.

* Significant at $p < .05$.

** Significant at $p < .01$.

side the metropolitan areas that exhibited high poverty levels in 1970.

Discussion of Results

The intent of this research was to address three main hypotheses, stated in an earlier section, regarding potential causal factors for the growth of neighborhood-level poverty. In this section I discuss the relevance of this research to those hypotheses. The results summarized above lend partial support for the first of these hypotheses, and no support at all for the second one. The empirical evidence presented provides definitive support for the third hypothesis.

The first hypothesis stated that metropolitan areas exhibiting fewer increases, or actual declines, in overall labor demand and employment availability would have experienced increases in neighborhood-level poverty. This hypothesis specifically incorporated Wilson's deindustrialization argument, or the notion that poverty levels would most strongly respond to the changing availability of jobs within the transformative sector. These results do indeed confirm the important role of metropolitan-level economic dynamics as a major determinant of extreme poverty at the neighborhood level. Significant relationships were validated between metropolitanwide changes in employment availability and neighborhood-level poverty. Moreover, these results tend to reinforce Wilson's hypothesis concerning the neighborhood impact of declining employment

Table 10

Multiple Regression Models of Change in Neighborhood Poverty among Non-Hispanic Whites, 1970–1990

	NPR		CPR	
Variable[a]	b	Beta (Standardized Coefficients)	b	Beta (Standardized Coefficients)
Unemployment	–8.24 (.139)	–.042	–.502 (.362)	–.107
Trans Base	4.45 (3.11)	.130	12.25 (8.07)	.150
Trans Emp/Pop	–12.22 (8.79)	–.077	–28.91 (23.61)	–.096
Deind (interaction)	–29.30 (90.54)	–.025	–78.74 (34.24)	–.048
Dist Emp/Pop	27.58 (26.73)	.070	77.90 (69.37)	.083
Retail Emp/Pop	–54.98 (26.94)*	–.151	–159.94 (69.89)*	–.185
Public Base	25.43 (4.29)**	.443	64.17 (11.29)*	.470
Gov Emp/Pop	19.10 (24.86)	.070	69.24 (64.65)	.106
Gov (interaction)	215.5 (310.06)	.126	88.74 (543.71)	.149
Wel/Pov	19.67 (100.0)	–.001	80.56 (110.5)	.005
Mean HH Income	–129.3 (.000)*	–.200	–229.0 (.000)*	–.149
% Afr-Am	12.4 (44.36)	.189	97.85 (89.45)	.131
% Hispanic	43.9 (48.56)	.003	17.44 (19.67)	.098
1970 Pop	25.54 (101.2)	.011	–12.21 (34.90)	–.021
Pop Growth	.543 (.665)	.084	1.43 (1.74)	.035
NPR/CPR (1970)	–.344 (.048)**	–.506	–.313 (.082)**	–.298
Constant	3.68 (1.05)**		11.84 (2.72)**	
F	7.79**		4.50**	
Adjusted *R*-Square	.331		.203	

Notes: Refer to Table 3.

[a] Refer to Table 2 for definitions.

* Significant at $p < .05$.

** Significant at $p < .01$.

opportunity within transformative industries, especially in regard to African-Americans during the 1970s (Wilson 1987, 1996). Results indicate that metropolitan areas having economic structures strongly focused on the transformative sector were partially more susceptible to the negative impacts associated with economic restructuring. In certain cases, neighborhood poverty levels also fluctuated with changes in the availability of employment within this sector.

However, this research has also shown that the important role of employment availability in reducing poverty was neither strictly related to overall labor demand nor entirely tied to the transformative sector. A major finding of this research is that a number of other economic sectors have also provided employment opportunities that reduced the growth of neighborhood poverty. This was particularly evident during the 1980s, when in varied ways the increasing availability of retail and distributive employment was associated with decreasing poverty among all three racial/ethnic groups. Moreover, changes within the retail sector affected Hispanic poverty as early as the 1970s. This research particularly supports the work of researchers who note that the public sector is an important employment "niche" for African-Americans, additionally expanding this idea to include Hispanics (Waldinger 1996). Most importantly, results from the analysis focusing on 20-year trends indicate that the only form of sector-specific employment change having significant

Table 11

Multiple Regression Models of Change in Neighborhood Poverty among Hispanics, 1970–1990

	NPR		CPR	
Variable[a]	b	Beta (Standardized Coefficients)	b	Beta (Standardized Coefficients)
Unemployment	.421 (.403)	.085	2.20 (.656)**	.224
Trans Base	16.31 (8.59)*	.181	18.52 (14.59)	.104
Trans Emp/Pop	–24.63 (37.15)	–.073	–5.47 (63.53)	–.008
Deind (interaction)	–407.92 (579.75)	–.128	6.84 (436.65)	.001
Dist Emp/Pop	–82.19 (74.27)	–.080	21.03 (126.11)	.010
Retail Emp/Pop	–20.96 (77.07)	.022	–41.08 (131.19)	–.022
Public Base	27.39 (12.17)*	.188	68.46 (20.72)*	.239
Gov Emp/Pop	56.68 (69.47)	.083	132.10 (118.87)	.098
Gov (interaction)	431.71 (579.75)	.070	861.63 (988.37)	.071
Wel/Pov	17.00 (34.00)	.001	–9.89 (11.10)	–.028
Mean HH Income	14.18 (31.00)	.004	–7.72 (11.56)	–.011
% Afr-Am	36.44 (37.50)	.112	11.55 (19.26)	.076
% Hispanic	16.66 (15.63)	.158	10.01 (17.88)	.061
1970 Pop	638.3 (103.2)	.106	12.18 (.000)*	.103
Pop Growth	–1.23 (1.45)	–.062	–1.49 (2.46)	–.039
NPR/CPR (1970)	–.405 (.062)**	–.513	–.726 (.063)**	–.735
Constant	4.59 (2.73)*		8.86 (4.68)**	
F	5.60**		11.24**	
Adjusted *R*-Square	.268		.450	

Notes: Refer to Table 3.

[a] Refer to Table 2 for definitions.

* Significant at $p < .05$.

** Significant at $p < .01$.

impacts on neighborhood poverty growth was in retail.

Based on the results illustrated here, and the results of earlier research, it is evident that employment within the transformative sector has been in the process of being replaced as the primary employment available to those with modest skill levels (Wilson 1987, 1996; Kasarda 1989; Jargowsky 1997). A number of researchers have viewed the rise of low-wage service work, work common within the retail industry, simply as a negative by-product of deindustrialization. In doing so, they have attributed increasing central-city poverty to the reliance of less-skilled workers on jobs within this broad low-wage sector (Wilson 1987, 1996). Findings from this analysis are somewhat limited, in that relative wage rates or earnings were not considered, yet these results do suggest that the availability of such service work actually inhibits the growth of neighborhood poverty rather than functioning to reinforce it. There can be no denying that economic restructuring has been a major causal factor underlying the growth of neighborhood-level poverty. But researchers who strictly focus on the negative impacts associated with this collection of processes may be underestimating the economic opportunities provided by lower-wage service jobs.

The second hypothesis stated that MSAs associated with the increasing availability of public assistance benefits will have exhibited increases in neighborhood-level poverty. The findings from this research

generally refute this notion. A focus on poverty-related behavioral traits most often attributed to increasing welfare benefits was not within the scope of this study. Nevertheless, this research has shown that any direct statistical relationships between welfare benefits and neighborhood-level poverty were race specific and were not constant over time. More importantly, results validated here are consistent with previous research and run counter to the ideas outlined by the conservative hypothesis (Jones and Kodras 1990; Jones 1990; Kodras and Jones 1991). Expansion of metropolitanwide welfare benefits during the 1970s actually reduced neighborhood poverty among whites. This significant negative influence on poverty was not apparent during the later decade. Most importantly, changes in the availability of welfare benefits had no impact at all on levels of neighborhood poverty among racial/ethnic minorities during any time period.

The third hypothesis was that the impacts of economic change on neighborhood-level poverty would be modified by a metropolitan contingency effect. This research investigated the notion that the interactions of economic processes and metropolitan economic structures have had impacts on neighborhood-level poverty beyond that of the discrete economic processes themselves. Findings from this research provide considerable support for this hypothesis. Not only do local economic structures modify the degree to which economic processes affect neighborhoods, they can influence the specific manner in which this impact is realized. Metropolitan economic structures filter the neighborhood-level impacts of both deindustrialization and public sector economic change. At first glance, the general impact of deindustrialization on neighborhood poverty seemed to weaken during the 1980s. The changing availability of transformative employment had no direct impact per se on any form of poverty during this later decade. However, in the context of a strong transformative base, decreases in the availability of such employment did indeed lead to increases in African-American and white poverty. The role that public sector employment change played in reducing minority poverty is even more contingent upon the contextual influences of economic structure. During the 1980s an increasing availability of public sector employment was generally associated with increasing neighborhood poverty among both African-Americans and Hispanics. Yet those MSAs having a strong public sector economic base experienced substantial *decreases* in minority poverty in the context of such employment change. Thus, the significance of this employment niche in terms of reducing neighborhood poverty seems to be limited to very specific conditions.

Summary and Conclusions

The main purpose of this paper was to examine the combined effects of metropolitanwide economic processes and changes in welfare benefits on neighborhood-level poverty. Empirical analysis resulted in several key findings. Some of these findings, in varying degrees, challenge what has become conventional wisdom within the poverty literature. The contributions of this research can be summarized by four main conclusions.

First, perhaps the most important conclusion gathered from this research is that the magnitudes of neighborhood poverty growth, and the underlying factors responsible for such growth, have been quite varied. In short, the nature of the relationships between these phenomena have varied by race, time, and geographic context. The same metropolitanwide processes did not affect poverty among all racial groups to the same degree, or even in the same manner. Poverty growth among African-Americans and whites can generally be accounted for more thoroughly by causal mechanisms considered here than can poverty among Hispanics. Moreover, these same causal mechanisms generally accounted for more neighborhood poverty growth in the 1970s than during the 1980s.

These latter two facts may relate to the inability of the models to account for specific demographic changes also related to the growth of poverty. The increasing formation of female-headed families has been shown to have significant impacts on the realization of poverty across all regions and racial subgroups (Jones and Kodras 1990; Kodras and Jones 1991). In addition, other forms of demographic change, such as natural increase, have been shown to have particularly strong impacts on Hispanic poverty (Jargowksy 1997). It is very probable that neighborhood-level poverty related less to metropolitanwide economic processes during the 1980s as a result of the increasing importance of female headship as a causal factor.

A second major conclusion is that neighborhood poverty has become more of a general metropolitan phenomenon over time. Given the historical scholarly focus on African-American poverty within larger Rust Belt cities, this finding is important. During the 1970s neighborhood poverty growth among minorities did indeed increase most dramatically in larger MSAs, while at the same time increasing for all groups within the Rust Belt region. Much less of a regional disparity existed between the Rust Belt and the Sunbelt in terms of poverty growth during the more recent decade. Another major shift realized in the 1980s was the significant growth in neighborhood poverty within smaller MSAs, particularly among whites. The most striking evidence that neighborhood poverty was becoming more generalized was provided by the recognition that poverty growth among whites during the 1970s and among minorities during both decades was associated with a "reverse contagion" process at the metropolitan level. This phenomenon did not increase most dramatically in MSAs already having high rates of neighborhood poverty, but was becoming more widespread by significantly increasing elsewhere.

Third, much of the literature focusing on causal factors responsible for neighborhood-level poverty has been overly generalized. This is especially true of research strictly focusing on the negative consequences of deindustrialization and the concomitant growth in the service economy. As an economic process, deindustrialization has undoubtedly had significant impacts on employment opportunities within metropolitan areas. Results from this study are consistent with much of the literature in documenting such impacts. In addition, this research substantially contributes to this literature by providing compelling evidence that the availability of jobs within the distributive, retail, and public sectors also furnishes opportunities that suppress the growth of neighborhood poverty, especially among minorities. This finding runs counter to the widely held assumption that the growth of the fast food economy is a primary cause of declining conditions evident within urban neighborhoods, an idea that prevails throughout the poverty literature (Jones and Kodras 1990; Wilson 1996). It is imperative to move beyond a strict focus on the negative consequences of economic restructuring and recognize that job growth in sectors other than the transformative sector can indeed lead to reductions in neighborhood-level poverty. These findings also highlight the necessity of reevaluating the neighborhood-scale validity of the conservative hypothesis.

Finally, we can no longer afford to ignore the important role of context when attempting to understand the impact of economic processes on neighborhood poverty. We must recognize theoretically that poverty levels respond to forms of economic change in ways that are contingent upon locally specific circumstances. More practically, we must consider the degree in which geographically varied economic structures modify the impacts of economic processes on localized employment opportunity. This research has demonstrated that the same economic processes do not affect poverty levels throughout the metropolitan system in the same manner, or to the same degree. This is specifically true when considering changes within the public sector.

The nature of the empirical link between changes within this sector and changes in poverty levels is totally contingent upon the context of local economic structure. Thus, when investigating the impacts of economic restructuring it remains critical to consider the *interactions* of local economic structure and broader economic processes.

A number of additional empirical tasks remain to be adequately addressed. First, it is necessary to more thoroughly consider the role of metropolitan context. For example, how do changes within the retail sector impact neighborhood poverty within metropolitan areas having a strong transformative economic base? Second, we must consider the contextual impacts of other potential causal factors of poverty growth, such as racial segregation, employment decentralization, and neighborhood-level sorting factors. Are poverty levels affected more by deindustrialization in the context of intrametropolitan employment change? In short, a strict focus on metropolitanwide economic processes only provides part of the story. Finally, we must thoroughly distinguish between the specific causal factors of increasing poverty and those that strictly relate to the increasing concentration of the poor. It is very likely that these different forms of poverty growth relate in varied ways to different economic, demographic, and cultural processes.

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