

**Why Work Disappears:  
Neighborhood Racial Composition and Employers' Relocation Intentions\***

John Iceland  
University of Michigan

David R. Harris  
University of Michigan

**JCPR Working Paper, October 1998, #1**

---

\* This research is being supported by grants from the Joint Center for Poverty Research at University of Chicago/Northwestern University and from the Russell Sage and Rockefeller Foundations. Please direct all correspondence to John Iceland, Population Studies Center, University of Michigan, 1225 South University Avenue, Ann Arbor, MI 48104-2590, iceland@umich.edu.

## **Why Work Disappears: Neighborhood Racial Composition and Employers' Relocation Intentions**

### **Abstract**

Over the past 25 years there has been a dramatic decline in the number of quality jobs located in central cities. This has disproportionately had an adverse impact on the economic prospects of African-Americans. One issue that has been neglected by most urban poverty researchers is the reasons why firms move. Using data from a representative sample of employers in Boston, Atlanta, Los Angeles, and Detroit, we assess the extent to which firms in these cities are more likely to express relocation intentions in neighborhoods with an increasing proportion of African American residents. Results indicate that firms in Boston and Los Angeles are indeed considerably more likely to express desires to flee neighborhoods with an increasing proportion of black residents. This exacerbates spatial mismatches in black urban communities. In Detroit and Atlanta, race displays little effect on firms' relocation intentions. Perhaps firms which are sensitive to race have long since relocated in Detroit and Atlanta, given their long histories of black/white balkanization and conflict.

## **Why Work Disappears: Neighborhood Racial Composition and Employers' Relocation Intentions**

In his most recent book, William Julius Wilson (1996) examines what happens to inner-city neighborhoods and their residents when work disappears. Extending the themes of his earlier work (1987), Wilson uses survey data and in-depth interviews to capture the desolation, abject poverty, and hopelessness that are now endemic in America's ghettos. Wilson's central thesis is that over the past 25 years there has been a dramatic decline in the number of quality jobs located in inner cities. As jobs left central cities for suburbs, small towns, and foreign locations, both blacks and whites of means also moved away from cities. Consequently, what now remains in inner cities is a group of people, mostly African-Americans, who lack the opportunity to support themselves through formal work.

While Wilson's analysis has been a powerful voice in both academic and policy circles, it does not provide the last word on urban poverty. One issue that has been neglected by Wilson, and indeed most other urban poverty researchers, is the reasons why firms move. While some have examined such related issues as employers' racial preferences (Kirschenman and Neckerman 1991) and skill requirements in the modern workplace (Holzer 1996), no poverty researcher has conducted a comprehensive, empirical study of the role of race in firm relocation decisions. This omission impedes our ability to develop effective antipoverty policies. In short, if we are to truly understand urban poverty, we must look not only at what happens when work disappears, but also at the reasons *why* work disappears.

This study uses a representative sample of firms in Boston, Detroit, Atlanta, and Los Angeles. These cities provide a diverse set of economic circumstances and historical contexts from which to study patterns of firm behavior. The goal is to assess the extent to which firms in these cities are more likely to express relocation intentions in neighborhoods with an increasing proportion of African American residents. Specifically, the following alternative hypotheses are tested:

1. Employers' desire to move increases as the percentage of local residents who are black increases.
2. Once we control for factors that may be correlated with race—such as skills of the local labor force and neighborhood income levels—the size of the local African-American population no longer displays an effect on firm relocation intentions.

One clarification concerning the use of terms is in order: in this paper, the role of “neighborhood racial composition” in firm relocation intentions is meant to be synonymous with the role of “the proportion of a neighborhood’s residents who are African-American” in such intentions. Although the two phrases are clearly not really synonymous, the former phrase is often used here because it is more parsimonious than the latter.

## **Background**

### *Race and Space*

Few dispute that racial discrimination in hiring and promotion played a principal role in blocking black economic progress during the pre-Civil Rights era. While there is clear evidence that such discrimination in the labor market continues (Turner, Fix, and Struyk 1991; Kirschenman and Neckerman 1991), attention has shifted to other forces that might also limit blacks’ economic prospects. One prominent theory is the spatial mismatch hypothesis. Its central premise is that the suburbanization of low skill jobs, coupled with the continued concentration of blacks in the inner city, inhibits minority access to employment opportunities. The separation of African-Americans from job growth handicaps residents in their job search and commuting patterns, tending to depress central city employment and wages (Peterson and Vroman 1992; Holzer 1991, 1996; Ihlanfeldt and Sjoquist 1989, 1990; Fernandez 1994, 1997).

The spatial mismatch hypothesis was originally proposed by John Kain (1968), who asserted that the rapid postwar dispersal of employment, accompanied by continuing high levels of racial residential segregation, placed blacks in an economically vulnerable position. Ellwood (1986), in an effort to clarify and test Kain’s ideas, outlined three conditions that must exist in order for spatial mismatches to occur:

1. Racial residential segregation constrains blacks’ options in adjusting to the relocation of firms within a metropolitan area.
2. Firms and employment opportunities are not equally distributed across all neighborhoods in a metropolitan area.
3. Commuting and search costs impose differential constraints on people living in various neighborhoods. Thus, persons living in certain neighborhoods (e.g. in the inner city) are disadvantaged in their employment prospects.

Regarding the first of these conditions, there is little disagreement that racial residential segregation permeates the American urban landscape. High levels of black/white segregation remain a fact in U.S. metropolitan areas, despite modest declines over the past few decades (Farley and Frey 1994; White 1987). A tour of any major city reveals that many neighborhoods are racially homogeneous. The role of racial residential segregation in perpetuating minority poverty has been highlighted by Douglas Massey and Nancy Denton in the book *American Apartheid* (1993). They and others document how practices such as steering African-American home buyers and renters from predominately white neighborhoods discourage integration (Yinger 1986, 1995; Galster 1990). Moreover, studies of bank records continue to find evidence of discrimination in lending markets, with blacks less likely to receive mortgages than equally qualified whites (Massey and Denton 1993; Yinger 1995).

The evidence regarding firm location, Ellwood's second condition, tends to show that the movement of employment opportunities from central cities to suburbs has resulted in increasing black disadvantage in the labor market (Ihlanfeldt and Sjoquist 1989; Fernandez 1994; Zax and Kain 1996). Kasarda (1995), for example, using data from four cities (New York, Chicago, Philadelphia, and Detroit), describes three coinciding trends: 1) rapid job growth in the suburbs, 2) slow or negative job growth in the central city, and 3) relatively slow black suburbanization. These trends are consistent with the spatial mismatch hypothesis. Kasarda (1995) also finds that the 1980s were characterized by general declines in the proportion of inner-city blacks that worked full-time and increases in the proportion of blacks that did not work at all.

Distance from job opportunities hinders the employment prospects of African-Americans by imposing higher commuting costs (discussed below), and by hampering knowledge of employment opportunities. Firms often recruit employees through ads in local newspapers, and particularly through word of mouth (Holzer 1996; Hanson and Pratt 1992). Wilson (1987; 1996) highlights the social isolation of ghetto residents, and the relative dearth of employment networks in their communities (see also Fernandez and Harris 1992). Similarly, in a study of the low wage labor market in central Harlem, Newman and Lennon (1995) find that even minimum wage jobs in the fast food industry become "the object of fierce competition" in the inner city. At the restaurants in their sample, the ratio of applicants to

hires is approximately 14 to 1. High school graduates in their 20s now dominate jobs that were once the domain of high school dropouts and young people new to the labor market. The authors conclude that this battle among blacks in the lower tiers of the labor market is the result of a sizable decline in the number of jobs available in Harlem.

Finally, much empirical work on spatial mismatches revolves around commuting costs (Ellwood's third condition). Longer commuting times increase monetary and time costs, thus reducing work incentives (Ihlanfeldt and Sjoquist 1990; Holzer and Ihlanfeldt 1996; Fernandez 1997). Research tends to show that blacks and inner-city residents have longer travel times to work than similar whites (Kasarda 1995; Holzer, Ihlanfeldt, and Sjoquist 1994; Holzer 1991). The time cost per mile traveled also appears to be substantially higher for young blacks than for young whites—partially because of lower rates of automobile ownership among the former group (Holzer, Ihlanfeldt, and Sjoquist 1994). Thus, blacks continue to find more employment in central cities than in suburbs mainly because central city firms tend to be closer to both public transit and black neighborhoods (Holzer and Ihlanfeldt 1996). Commuting times also appear to have a differential impact on blacks and whites because blacks often have long commutes out of necessity (given residential restrictions), while whites may have long commutes out of choice (Zax 1991; Fernandez 1997).

In summary, there is mounting evidence that spatial mismatches produce negative labor market outcomes for minorities. Specifically, the evidence tends to show that blacks are increasingly at a disadvantage because they lack information about employment opportunities in distant suburban communities, and because of greater time and money costs associated with commuting to such locations. The implication of these findings is that 'space' is a key problem that minorities must surmount, as physical distance from opportunities has profound negative consequences.

As it has been described thus far, the spatial mismatch hypothesis portrays racial differences in employment as the result of discrimination in housing markets, and race-neutral decisions about firm relocation and public transportation. Businesses choose sites that best fit their needs, and it just so happens that these sites tend to be far from black populations. However, it may be no accident that optimal sites are overrepresented in predominantly white areas. Employers often have definite preferences about the race of

their workers, and are knowledgeable about the characteristics of local labor forces (Hanson and Pratt 1992; Holzer 1996; Kirschenman and Neckerman 1991; Cain 1986; Turner, Fix, and Struyk 1991; Wilson 1996; Anderson 1990). As a result, what appear to be race-neutral firm location decisions may in fact reflect the firm's racial preferences and covert policy of discrimination.

In addition to the race of local residents, there are other ecological factors that firms likely consider when evaluating the desirability of sites. The skill level of the local labor pool is often advanced as an important factor in site selection (Calzonetti and Walker 1991; Carlton 1979; Wilson 1987; Fernandez 1994; Hanson and Pratt 1992). Due to the high productivity of skilled labor and, especially in recent years, the difficulty of finding suitable workers, firms seek to increase their odds of attracting skilled workers by locating near such populations. Firms may also be concerned about the socioeconomic status (SES) and general social climate of sites. This factor matters not just because it is correlated with race and skills, but also because firms prefer safe, well-maintained locations for their businesses, and a more affluent customer base. Workers' preferences means that firms will better be able to retain quality employees if they can offer them desirable neighborhoods in which to work (Gottlieb 1995).

### *Contributions*

This study is unique in its use of data on a large sample of employers to distinguish between preferences for racial groups and responsiveness to other site characteristics. Other studies that have addressed employers' racial and social preferences are case studies (Fernandez 1994; Hanson and Pratt 1992). Inevitably, however, questions about the generalizability of these findings arise. Hanson and Pratt focus on only a handful of firms involved in manufacturing and producer services in Worcester, Massachusetts, and Fernandez looks at one food-processing plant in highly segregated Milwaukee. Neither of the two studies directly compares the role of racial and nonracial factors in firms' relocation decisions. The strength of this analysis is the simultaneous evaluation of the effect of neighborhood racial composition—focusing on blacks in particular – and other factors in firm relocation decisions by using employer data from a representative sample of firms in four metropolitan areas.

*The Detroit, Boston, Atlanta, and Los Angeles Contexts*

Detroit has a lengthy history of racial residential segregation. Even as early as the 1910 to 1929 period population trends emerged which would later produce a central city demographically dominated by African-Americans surrounded by largely white suburbs (Farley 1996). Long a center of the auto and defense industries, Detroit's fortunes took a down-turn in the post World War II period. Racial conflict over economic opportunities, residential segregation, public schools, and political power periodically flared. Forty-three people died in the 1967 riots, and thousands were arrested. The acceleration of Detroit's declining share of the auto and defense industries in the 1960s and 1970s exacerbated these conflicts, and had particularly negative repercussions for the African-American community (Farley 1996). As of 1990, the Detroit metropolitan area contained 4.3 million people, 21 percent of whom were black. The city of Detroit had a total population of a little over one million people (U.S. Bureau of the Census 1991). Although there are signs that Detroit's economic decline has slowed, or perhaps even ended, economic problems persist, as do high levels of racial tension.

Boston is an old city with a long history. But as late as 1940, the African-American population in Boston numbered just 23,000, or about 3 percent of the city's population. During World War II many skilled and unskilled laborers came to Boston to work in industrial plants, army posts, and shipyards. As a result, the black population nearly doubled in the 1940s (O'Connor 1993). The African-American community became more assertive against economic and social injustices during the 1950s and 1960s as their numbers grew and social change swept the country. In recent decades, racially charged debates over urban renewal and public school busing have been common. As of 1990, the metropolitan area contained 3.8 million people, of whom 5.6 percent were black. Nearly 600,000 people now live in the city of Boston (U.S. Bureau of the Census 1991).

Atlanta is a city with two historical legacies, being both the former Imperial Capital of the Ku Klux Klan, and the "Black Mecca"—the home of W.E.B. DuBois and Martin Luther King and a large and prosperous African-American middle class (Rutheiser 1996). Over the past three decades Atlanta has

experienced rapid economic and demographic growth. Yet this growth has largely occurred outside the city limits, especially to the north; the city of Atlanta actually lost population during the 1980s (Research Atlanta Inc., 1993). As of 1995, Atlanta's central city was the home to an estimated 424,300 persons, while the metropolitan area as a whole contained almost 3.4 million. Atlanta has long had a large African American population, though it has really only been in the post World War II period when blacks gained any significant political power (Bayor 1996). Whites suburbanized rapidly in the 1960s and blacks followed suit in the 1970s and 1980s. The suburbs remain highly segregated by race and class, with more affluent whites concentrated in the north and blacks in other areas, particularly the south (Research Atlanta Inc., 1993). As of 1990, African-Americans comprised about a quarter of the metropolitan population, though about two-thirds of the central city's population. Despite its attempts to present itself as a modern, progressive city embodying the New South, Atlanta's central city is characterized by high levels of poverty and racial residential segregation (Rutheiser 1996).

Los Angeles is an ethnically diverse and fragmented city which has grown to become the country's second largest metropolis. As of 1990, Los Angeles was a metropolitan area without any ethnic majority, though Hispanics seem likely to become the majority sometime in the next century (Waldinger and Bozorgmehr 1996). Changes in the region over the past couple of decades have produced a band of mixed ethnic neighborhoods in LA county, though segregation is still prominent (Clark 1996). The African-American community in Los Angeles is bifurcated, with a split between the growing numbers of well-to-do and those who are faring poorly. Low-skill African Americans are increasingly unemployed or under-employed-- as many of the area's low-skill jobs go to immigrants (Grant et. al. 1996). After long being concentrated in South Central Los Angeles, blacks have been suburbanizing at rapid rates since the 1970s (Grant et. al. 1996). Los Angeles has a diversified economic base, with concentrations in business and management service, tourism, health-related services, wholesale trade, and aerospace. The early 1990s witnessed a large decline in aerospace and defense-related industries. As of 1990, about 14.5 million people resided in the greater LA metropolitan area, 8.5 percent of whom were African-American. The comparable figures for LA county are 8.9 million, of whom 11.2 percent were black.

Comparing the economies of the four cities, Detroit's is clearly the most troubled. The Boston economy is strong, with many bustling industries—such as finance and government—in the central city (O'Connor 1993). Similarly, despite a deep recession in the early 1990s, the Los Angeles economy is diversified and growing. Atlanta continues to boom, though growth has occurred in outlying areas while the central city continues to decline. Racial residential segregation is highest in Detroit, and high but declining in the other three cities. Detroit and Atlanta have the largest African-American populations, and both share long histories of racial tension. In many ways race has been and still is the overriding issue in local politics and government of these two cities (Eisinger 1980). Racial tension is also high in Los Angeles, as exemplified by the riots in 1965 and 1992, though the greater racial and ethnic mix adds complexity to race relations in that city.

### **Data and Methods**

We examine data from the Multi-City Employer Survey (MCES). The MCES was directed by Harry Holzer and is part of the Multi-City Study of Urban Inequality (MCSUI). Between 1992 and 1994, researchers at several universities surveyed households in the Atlanta, Boston, Detroit, and Los Angeles metropolitan areas (MSAs). Shortly thereafter, Holzer interviewed 3,220 employers in these same four MSAs. The goal of the project was to provide a comprehensive look at poverty and inequality by collecting data on both the supply and demand sides of the labor market. Because of missing tract identifiers and

missing data for some firms on their relocation intentions,<sup>1</sup> our final analysis consists of 2,568 employers in the four metropolitan areas.<sup>2</sup>

The MCES sample has two sources. One-third of the firms are the current or last employer of MCSUI household respondents. The other two-thirds of the MCES sample was randomly selected from telephone directories and other sources. All firms that had hired an employee for a job that did not require a college degree were eligible, providing that the job was filled in the previous three years. At each firm the person responsible for hiring was interviewed. The response rate for the MCES was 67% among screened firms, which is comparable to other recent employer surveys (See Holzer [1996] for further information on the design and collection of the MCES.).<sup>3</sup>

The MCES has three qualities that make it particularly well-suited for testing our hypotheses. First, it contains a large sample of employers in multiple metropolitan areas, which allows us to examine relocation decisions among a broad range of firms in diverse settings. Second, the MCES contains firm-level data which is important for understanding why firms move. Third, the current location of each firm has been geocoded down to the level of census tracts. As a result, this analysis goes beyond crude city-suburban analyses of employer location, and more precisely examines the impact of local ecological factors on the spatial distribution of jobs.

---

<sup>1</sup> Some firms also had missing values for other firm characteristics which are control variables in the following multivariate analysis. In order to avoid dropping too many observations from this analysis, values for these missing firm characteristics were imputed. Missing values were predicted (using the impute command in STATA) by regressing the missing values on other firm characteristics. The characteristics used as independent variables in the regressions were: firm size, metropolitan area dummy variables, central city indicator, percent employees who are black in the firm, and firm sector. For a discussion of different methods of imputation, see Little and Rubin (1987). All but two of the 14 firm-level variables (see Table 1 for the list) had from 1 to 17 percent of their values imputed (most of these had under 10 percent of their values imputed). The two variables that had higher imputation rates are: percent of firm customers who are black (25 percent) and firm sales growth indicator (32 percent).

<sup>2</sup> The omission of 638 cases out of 3,206 potentially introduces some bias into the analysis. In an attempt to estimate the potential risk of bias, firm characteristics in the two samples—one consisting of observations with missing tract data (the 638 case excluded from our multivariate analysis) and the other in which they are not (2,568 cases)-- were compared. The two samples significantly differ ( $p < 0.05$ ) across only 5 of the 14 firm characteristics which serve as control variables in our models. Thus, while the sample may not be completely representative of the firms in the four cities, the bias appears to be modest.

<sup>3</sup> It was hoped that the MCES would yield a random sample of firms in the four MSAs, with firm representation being proportional to workforce size. However, due to issues related to the two-part design of the sample, weights must be applied to correct for the under-representation of some firms in the data (Holzer 1996).

Firm relocation intentions are assessed by examining the anticipated behavior of firms and drawing inferences about the role of various ecological factors in the decision process. This approach has advantages over the subjective, attributional method that is often employed in studies of firm location (Hanson and Pratt 1992; Blair and Premus 1987; Morgan 1967). The attributional method identifies an informed person at the firm and asks him or her to rank the factors that guided site selection. The biggest problem with this approach is the difficulty of finding someone who can, and will, honestly and accurately evaluate the role of diverse factors in relocation decisions. Consequently, the approach is subject to significant bias and may yield unreliable results (Calzonetti and Walker 1991).

While this analysis is certainly not the first to infer firm preferences from mobility behavior (Carlton 1979, 1983; Gottlieb 1995; Schmenner, Huber, and Cook 1987), it is the first to simultaneously evaluate the role of race and other factors in relocation decisions. Previous work has either ignored race effects, limited its focus to one industry, or failed to distinguish between current and historical effects on site selection (Gottlieb 1995; Blair and Premus 1987). This study, therefore, represents a marriage between the methodology of firm location and the theory of spatial mismatch.

### *Mobility Incidence*

The analysis focuses on the factors that incite firm flight. The central question addressed is: What is the impact of neighborhood racial composition on employers' relocation intentions? Answers to this question provide information about which policies might help municipalities retain firms.

To predict mobility incidence, the following logistic regression model is estimated:

$$E[Y_i] = [1 + \exp(-B_0 - B_1F_i - B_2N_i - B_3P_i - B_4N_i * P_i)]^{-1},$$

where  $Y_i$  is the moving intentions of firm  $i$ ,  $F_i$  is characteristics of firm  $i$ ,  $N_i$  is 1980-1990 changes in the traits of the site where firm  $i$  is currently located,  $P_i$  are place dummy variables indicating the metropolitan area in which firm  $i$  is located and whether the firm is in a primary central city, and  $N_i * P_i$  indicates interactions between neighborhood characteristics and the metropolitan area in which firm  $i$  is located.

The dependent variable in this model is based on the MCES item, "Are you currently planning to relocate?" Firms intending to move are coded "1". As is clear from the text of this question, our indicator

of mobility incidence refers to anticipated, not actual, moves. We are unable to directly examine firm departures because the MCES is cross-sectional and contains limited information about firms' former locations. In particular, there is no data on previous site characteristics. Nevertheless, there are at least two reasons why we believe that findings about expected mobility incidence are of interest. First, even when an anticipated move is not followed by an actual move, the fact that a firm expressed a desire to relocate suggests site preferences. Second, expected and actual mobility incidence likely provide largely redundant information because most firms that expect to move will actually move in the short run. Support for this assertion appears in the MCES data. It shows that the proportion of firms that expect to move (nearly 8.4 percent) is similar to the proportion that are located in a new site in the previous two years (8.5 percent).

The analysis focuses on the relationship between relocation plans and changes in site characteristics. *Changes* in site characteristics are used rather than cross-sectional measures of these characteristics because the decision to relocate is by its nature a dynamic process. In this analysis, sites are operationalized as census tracts. While census tracts are often used as proxies for neighborhoods in studies of individuals (Jencks and Mayer 1990; Duncan, Brooks-Gunn, and Klebanov 1994; Brooks-Gunn, Duncan, Klebanov, and Sealand 1993; Hogan and Kitagawa 1985), studies of firms have been reluctant to define sites as tracts because the pool of potential workers and customers likely extends beyond tract boundaries. Instead, studies often define sites as metropolitan areas or counties. Whereas tracts are probably smaller than sites, there is little doubt that metropolitan areas and counties are too large. Given this uncertainty, for now sites are defined as tracts. In future work the effect of how sites are conceptualized on the magnitude of contextual effects will be examined. The merger of the MCES and tract-level data from the 1980 and 1990 U.S. Censuses provides measures of site characteristics. The key race variable is measured as the 1980 to 1990 change in proportion of a tract's population that is black. Changes in local skill levels are measured with a variable representing the change in the proportion of the neighborhood population between the ages of 18 and 64 that has obtained at least a high school diploma or equivalent.<sup>4</sup> Changes in neighborhood SES and social climate is proxied by changes in the median family

---

<sup>4</sup> Analyses were also run where skill levels were measured with a variable representing the change in the proportion of the neighborhood population with a college degree. This variable was not included in the analysis because it is more highly correlated with changes in both neighborhood income levels and rents,

income in the tract. Change in the population of the tract measures the growth of an area. Finally, changes in gross rent measure changes in the value of property, which affects firms' costs and perhaps their willingness to relocate.<sup>5</sup>

The analysis controls for a number of firm characteristics. These variables include indicators of firm size, industry, whether the firm experienced growth in the previous year, the proportion of the firm's employees who have a college degree, the proportion who are black, whether the firm's supervisor is black, the proportion of the firm's customer base which is black, and whether the firm has been located at the present site for 10 years or more. A number of attitudinal dummy variables are also contained in the analysis. These include whether the firm's customers prefer workers of their race, whether employees prefer workers of their own race, whether the firm always targets a specific neighborhood, and whether the supervisor thinks inner city job applicants are weaker.

The models also contain an interaction between changes in neighborhood percent black with the metropolitan area dummy variables-- as the effect of race likely differs across cities with different histories and current conditions. Some models are also run with interaction terms between changes in racial composition and the initial (1980) proportion of African-American residents in the neighborhoods. Firms located in areas which already had a larger proportion of blacks in 1980 may be less likely to move away from such areas because they may be more indifferent to race. Finally, separate models are also run by whether the supervisor is white and whether the firm is located in the suburbs. Firms with white supervisors may be more likely to seek to relocate away from neighborhoods with more blacks. Suburban firms may

---

thus increasing the potential for multicollinearity. The magnitude of the race effect actually differs little regardless of which measure of change in skills is used. Overall, the problem of multicollinearity is less severe with dynamic data than when using cross-sectional measures. By far the highest pair-wise correlation amongst the five neighborhood variables in the analysis is that between changes in income and rents at 0.45. The next highest is the modest 0.16 correlation between changes in population and skill levels.

<sup>5</sup> Some analyses were also run with a control variable for total crime in an area. This measure is not used in the main analysis for two reasons. First, the data on crime is measured at the "place" level, which is a crude measure of a site. Second, crime data is missing for a number of places, and this would further reduce effective sample sizes. Nevertheless, in analyses with the crime variable, the effect of race is similar to that which is discussed in the results section. That is, crime does not appear to mediate the effect of race in the analysis.

also be more sensitive to racial composition because these firms might already be located in the suburbs precisely because they wanted to avoid central city locations which contains more African-Americans.<sup>6</sup>

## Results

Table 1 reports descriptive statistics for the sample firms. The sample is constrained to insure consistent sample sizes throughout the analyses. About 8.4 percent of the firms report a relocation intention. Of note, firms tend to be located in tracts with a growing proportion of African-American residents—the average increase over the decade was three percentage points. Neighborhoods also displayed increases in educational levels, income, and rents, though the latter two figures are not adjusted for inflation. About a quarter of the firms are located in each of the four metropolitan areas, and just over a quarter of the firms are in primary central cities. The various characteristics of the sample firms are also shown in Table 1.

**Table 1. Descriptive Statistics for Variables in the Analysis**

Variable	Mean	Std. Dev.
<b>Firm Characteristics:</b>		
% firms planning to relocate	.084	.277
Number of employees in firm	658.1	5,218.0
% college degree positions	.299	.296
% black employees	.178	.230
Customers prefer workers of own race indicator	.204	.370
Employees prefer workers of own race indicator	.206	.372
% customers black	.180	.172
Sales growth indicator	.700	.402
Minority supervisor indicator	.231	.412
10 or more years at site indicator	.618	.479
Firm always targets specific neighborhood	.118	.320
Supervisor thinks inner city applicants are weaker	.153	.328
<b>Industry:</b>		
% firms manufacturing	.193	.392
% firms services	.395	.486
% firms retail trade	.235	.421
<b>Change in Neighborhood Characteristics, 1980-90:</b>		
Change % black	.030	.112

<sup>6</sup> Other interactions were also examined, such as neighborhood racial composition with industry, the percent employees who are black, the percent of customers who are black, a firm growth indicator, and changes in neighborhood median income and education levels. These interactions tended to be insignificant or only very marginally significant.

Change in population	740.1	2,844.7
Change % with high school diploma +	.075	.098
Change median household income	21,656.1	13,163.7
Change in gross rent	319.0	135.7
<b>Place Characteristics:</b>		
% of firms in Boston	.275	.447
% of firms in Atlanta	.251	.434
% of firms in Los Angeles	.235	.424
% of firms in Detroit	.239	.426
% in primary central cities	.272	.445
<b>N</b>	2,568	

---

Results from the multivariate analysis are presented in Table 2. The impact of changes in the neighborhood African-American composition is tested with nested models. Model 1 displays the effect of race with the metropolitan area and central city control variables. In Model 2 the firm-level control variables are added. Finally, neighborhood level controls variables are added in Model 3. Basically, the effect of changes in the black population is highly significant in all three models. Firms are more likely to express relocation intentions in neighborhoods with an increasing proportion of blacks. The magnitude of the effect declines by 8.1 percent in Model 2 versus Model 1, and by another 6.4 percent in Model 3, indicating that firm-level characteristics and neighborhood level characteristics mediate a modest proportion of the effect; nevertheless, a strong relationship remains even after all these controls are included in the analysis.

**Table 2. Logistic Regression of Whether Firms Are Planning to Relocate**

Covariates	Model 1		Model 2: with firm characteristics		Model 3: Model 2 + neighborhood characteristics	
	<i>Coefficient</i>	<i>S.E.</i>	<i>Coefficient</i>	<i>S.E.</i>	<i>Coefficient</i>	<i>S.E.</i>
<i>Change in Neighborhood Characteristics, 1980-1990</i>						
<b>Change in % black</b>	<b>11.926 ***</b>	<b>3.766</b>	<b>10.965 ***</b>	<b>3.780</b>	<b>10.266 ***</b>	<b>3.876</b>
Change in population					-1.0E-04 ***	2.9E-05
Change in % with a high school diploma or greater					0.852	0.839
Change in median household income					-1.4E-05 *	7.3E-06
Change in gross rent					1.3E-03 *	6.9E-04
<i>Metropolitan area and central city indicators</i>						
Boston (omitted)						
Atlanta	0.181	0.234	0.173	0.251	0.351	0.262
Los Angeles	0.606 ***	0.224	0.589 **	0.235	0.659 ***	0.246
Detroit	0.210	0.239	0.104	0.248	0.142	0.265
Atlanta*change in neighborhood % black	-12.187 ***	3.855	-11.326 ***	3.860	-10.508 ***	3.952
L.A.*change in neighborhood % black	-7.355 *	4.451	-5.716	4.471	-5.227	4.553
Detroit*change in neighborhood % black	-10.728 ***	3.939	-9.416 **	3.945	-9.133 **	4.024
Central city firm	-0.006	0.168	0.135	0.177	0.062	0.179
<i>Firm Characteristics</i>						
Number of employees in firm			-3.8E-04 **	1.8E-04	-4.1E-04 **	1.8E-04
% college degree positions			0.171	0.267	0.173	0.270
% employees black			-0.522	0.443	-0.580	0.448
Customers prefer workers of their race			0.059	0.213	0.076	0.214
Employees prefer workers of their race			0.022	0.211	0.030	0.212
% customers black			0.162	0.544	0.201	0.551
Sales growth indicator			-0.172	0.176	-0.171	0.177
Minority supervisor indicator			-0.166	0.197	-0.195	0.198
10 or more years at site indicator			-0.521 ***	0.151	-0.554 ***	0.152
Firm always targets a specific neighborhood indicator			-0.768 **	0.302	-0.808 ***	0.303
Supervisor thinks inner city job applicants are weaker			0.438 **	0.197	0.452 **	0.198
Manufacturing sector firm			0.598 **	0.245	0.576 **	0.246
Services sector firm			0.152	0.232	0.156	0.233
Retail/wholesale trade sector firm			0.175	0.245	0.192	0.247
Constant	-2.729 ***	0.172	-2.454 ***	0.316	-2.599 ***	0.416
N	2,568		2,568		2,568	
-2 Log L	727.925		699.496		691.126	
Degrees of Freedom	8		22		26	

\*\*\*p<0.01 \*\*p<0.05 \*p<0.10

The metropolitan area interaction terms indicate that the effect of changes in racial composition differs across metropolitan areas. In fact, the impact of the race coefficient shown in all the models refers to the race effect in Boston—the omitted metropolitan area. The computed odds ratio associated with this coefficient in Model 3 indicates that a one percentage point increase in the proportion of neighborhood residents who black over the decade increases the odds of a firm expressing relocation intentions by 1.11 times ( $e^{(10.266/100)}=1.11$ ) in Boston (the 10.266 term is divided by 100 in order to scale the value to reflect the impact of a one percentage point change). For Atlanta, we have to add the effect shown in the interaction term to the main race effect. Thus, neighborhood changes in racial composition have virtually no effect on the odds of a firm expressing relocation intentions in Atlanta ( $e^{(10.266-10.508)/100}=1.00$ ). The significant coefficient of the Atlanta interaction term indicates that impact of race is significantly different in Atlanta versus Boston. In Los Angeles, the odds ratio associated with the coefficients indicates that each additional percentage point increase in the proportion of neighborhood residents who black over the decade increases the odds of a firm expressing relocation intentions by 1.05 times ( $e^{(10.266-5.227)/100}=1.05$ ). The overall race effect is statistically significant in Los Angeles at the 0.05 level.<sup>7</sup> The impact of race does not significantly differ in Boston versus Los Angeles. Finally, in Detroit, the odds ratio associated with the coefficients indicates that neighborhood changes in racial composition have no significant impact on the odds that a firm will express a firm relocation intention ( $e^{(10.266-9.133)/100}=1.01$ ).

Regarding the effect of the neighborhood-level control variables in the Table 2, results indicate that firms in neighborhoods with growing populations are considerably less likely to express relocation intentions. Such neighborhoods are vibrant areas that attract both residents and businesses. Results also show that firms are modestly less likely to want to move away from sites with increasing median household

---

<sup>7</sup> The overall significance of the race effect in each metropolitan area can be estimated by simply rerunning the regressions and making the particular metropolitan area of interest the omitted category. In this case, the first order race coefficient and its significance level refers to the race effect in the omitted category (e.g., as is done with Boston in the models shown).

incomes. These neighborhoods provide an increasingly affluent customer base and perhaps a generally better-kept area to do business. Finally, firms in areas with increasing rents are slightly more likely to want to relocate, as higher rents increase business operating costs.

Among the firm-level control variables, firms with a greater number of employees are less likely to express relocation intentions. The costs associated with moving bigger firms are likely larger. Results also show that firms that have been at the particular site for ten years or more are less likely to express relocation intentions. Firms with a long tenure in a particular site may be more settled and accustomed to doing business in that area. Firms which target their business to a specific neighborhood are also less likely to want to relocate, as they are probably already situated in their desired neighborhood. Results indicate that firms in which the supervisor thinks that inner city job applicants are weaker are more likely to express relocation intentions. Kasarda (1995) and others have shown that there has been a general movement of jobs toward the outer rings of metropolitan areas; results here indicate that part of this movement may be sparked in part by firms' distrust of inner city job applicants. Finally, manufacturing sector firms are also more likely to express relocation intentions. Many of the firms moving toward the suburbs, exurbs, and to other metropolitan areas are those in manufacturing (Kasarda 1995; Wilson 1996).

Before turning attention to a puzzling issue raised by the results in the previous table – that is, the significant difference in the effect of race across the four metropolitan areas – we now examine whether the effect of changes in neighborhood racial composition on relocation intentions differs by various firm and site characteristics. These results are shown in Table 3. Model 1 shows displays the results from the full model (Model 3) in Table 2; this serves as a comparison. Model 2 contains results when only firms with white supervisors are considered. Model 3 shows results among suburban firms. Model 4 shows the effect of interactions between changes in neighborhood racial composition and the initial (1980) proportion of African-American residents in the neighborhood. Relocation intentions may vary by these firm and neighborhood characteristics for reasons discussed above.

**Table 3. Logistic Regression of Whether Firms Are Planning to Relocate,  
by Various Neighborhood and Firm Characteristics**

Covariates	Model 1 (Full Model from Table 2)		Model 2: suburban firms		Model 3: firms with white supervisors		Model 4: interaction with 1980 neighborhood % black	
	<i>Coefficient</i>	<i>S.E.</i>	<i>Coefficient</i>	<i>S.E.</i>	<i>Coefficient</i>	<i>S.E.</i>	<i>Coefficient</i>	<i>S.E.</i>
<i>Change in Neighborhood Characteristics, 1980-1990</i>								
<b>Change in % black</b>	<b>10.266 ***</b>	<b>3.876</b>	<b>20.015 ***</b>	<b>5.311</b>	<b>12.953 ***</b>	<b>4.559</b>	<b>10.043 **</b>	<b>3.908</b>
Change in population	-1.0E-04 ***	2.9E-0	0.000 **	0.000	0.000 **	0.000	0.000 ***	0.000
Change in % with a high school diploma or greater	0.852	0.839	-0.501	1.325	1.329	1.033	0.860	0.840
Change in median household income	-1.4E-05 *	7.3E-06	-2.0E-05 *	1.1E-05	-1.1E-05	8.7E-06	-1.5E-05 *	7.7E-06
Change in gross rent	1.3E-03 *	6.9E-04	2.0E-03 **	9.2E-04	1.2E-03	8.0E-04	1.4E-03 *	7.2E-04
<i>Metropolitan area and central city indicators</i>								
Boston (omitted)								
Atlanta	0.351	0.262	0.572 *	0.328	0.293	0.304	0.391	0.280
Los Angeles	0.659 ***	0.246	0.777 **	0.322	0.450	0.305	0.663 ***	0.246
Detroit	0.142	0.265	0.464	0.313	0.178	0.294	0.142	0.265
Atlanta*change in neighborhood % black	-10.508 ***	3.952	-20.427 ***	5.362	-13.692 ***	4.640	-10.849 ***	4.030
L.A.*change in neighborhood % black	-5.227	4.553	-13.208 **	6.156	-4.887	6.103	-5.341	4.581
Detroit*change in neighborhood % black	-9.133 **	4.024	-24.751 ***	6.639	-11.263 **	4.708	-9.092 **	4.028
Central city firm	0.062	0.179			-0.055	0.231	0.051	0.186
<i>Firm Characteristics</i>								
Number of employees in firm	-4.1E-04 **	1.8E-04	-3.3E-03 ***	8.0E-04	-1.2E-03 ***	4.5E-04	-4.1E-04 **	1.8E-04
% college degree positions	0.173	0.270	0.085	0.328	-0.291	0.329	0.179	0.271
% employees black	-0.580	0.448	0.452	0.568	-0.574	0.578	-0.582	0.450
Customers prefer workers of their race	0.076	0.214	0.039	0.282	0.371	0.250	0.073	0.214
Employees prefer workers of their race	0.030	0.212	-0.011	0.290	-0.120	0.266	0.029	0.212
% customers black	0.201	0.551	-0.244	0.748	0.330	0.663	0.200	0.555
Sales growth indicator	-0.171	0.177	-0.248	0.220	-0.322	0.210	-0.170	0.177
Minority supervisor indicator	-0.195	0.198	-0.476 *	0.285			-0.197	0.198
10 or more years at site indicator	-0.554 ***	0.152	-0.544 ***	0.193	-0.392 **	0.182	-0.555 ***	0.152
Firm always targets a specific neighborhood indicator	-0.808 ***	0.303	-0.870 **	0.433	-1.465 ***	0.491	-0.811 ***	0.304
Supervisor thinks inner city job applicants are weaker	0.452 **	0.198	0.258	0.261	0.270	0.244	0.458 **	0.199
Manufacturing sector firm	0.576 **	0.246	0.917 ***	0.329	0.708 **	0.300	0.576 **	0.247
Services sector firm	0.156	0.233	0.562 *	0.317	0.524 *	0.281	0.157	0.233
Retail/wholesale trade sector firm	0.192	0.247	0.438	0.329	0.223	0.301	0.193	0.247
<i>1980 neighborhood % black and interaction term</i>								
1980 neighborhood % black							0.014	0.446
change in neighborhood % black* 1980 neighborhood % black							1.074	2.290
Constant	-2.599 ***	0.416	-2.771 ***	0.537	-2.588 ***	0.486	-2.607 ***	0.421
N	2,568		1,777		1,795		2,568	
-2 Log L	691.126		440.452		482.942		691.012	
Degrees of Freedom	26		25		25		28	

\*\*\*p<0.01 \*\*p<0.05 \*p<0.10

Results in Model 2 in Table 3 indicate that the effect of changes in black composition have an even greater impact in suburban areas than in central city locations (this difference is statistically significant at the 0.001 level, according to a t-test for differences in coefficients). But since Boston is the omitted category, this conclusion applies only to Boston. In fact, there is no statistically significant difference in the impact of race by suburban/central city location Los Angeles and Atlanta, and only a very marginally significant difference ( $p < .10$ ) in Detroit, where suburban firms may, if anything, be slightly less likely to move away from neighborhoods with an increasing proportion of black residents than central city firms. But even in Detroit the *overall* race effect is insignificant in both the city and the suburbs. The overall race effect in the suburbs is significant only in Boston and Los Angeles. Results in Model 3 suggest that there may be a bigger substantive race effect among firms with white supervisors than minority supervisors, but this difference is not statistically significant—though the overall race effects are again significant in Boston and Los Angeles. Finally, Model 4 shows that the impact of race does not vary by initial (1980) proportion of neighborhood residents who are African-American, nor is there any significant interaction with changes in racial composition. Figure 1 provides a useful summary of the results in Models 1 through 3 by visually displaying the odds ratios associated with the key race variable. Once again note that the race effect is only significant in Boston and Los Angeles, but not in Atlanta or Detroit.<sup>8</sup>

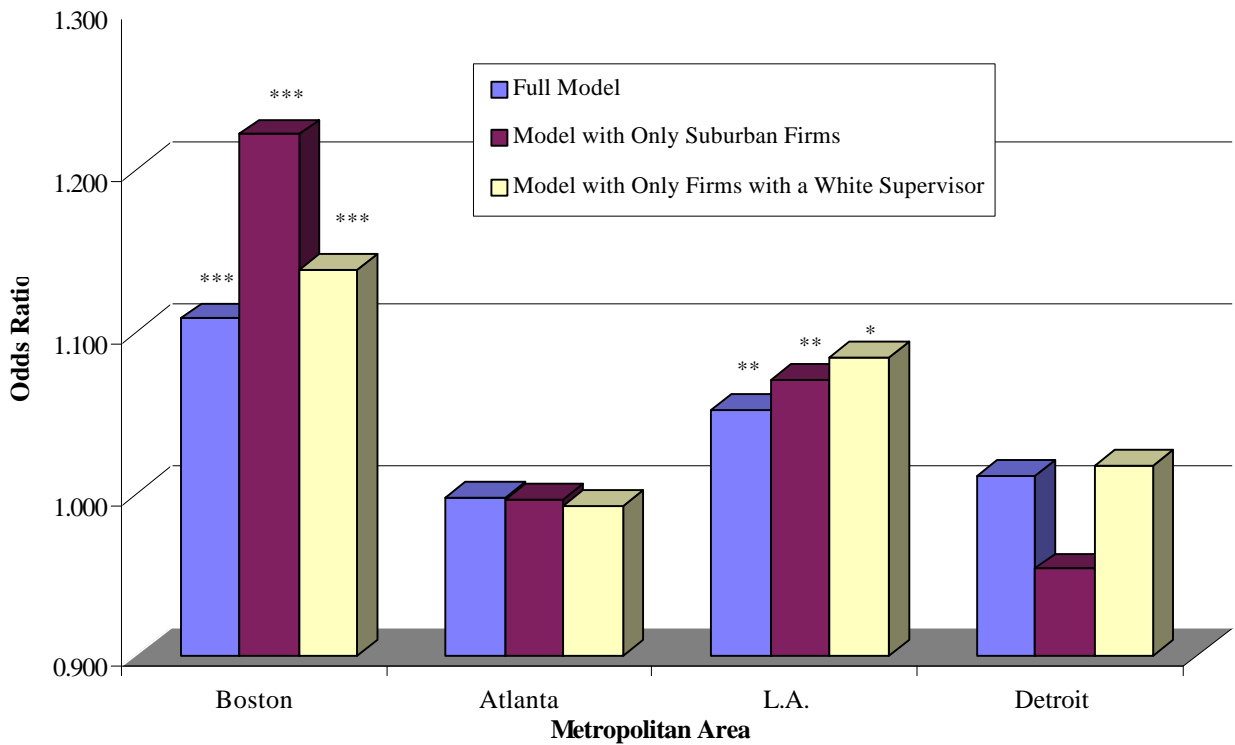
Results in Model 2 in Table 3 indicate that the effect of changes in black composition have an even greater impact in suburban areas than in central city locations (this difference is statistically significant at the 0.001 level, according to a t-test for differences in coefficients). But since Boston is the omitted category, this conclusion applies only to Boston. In fact, there is no statistically significant difference in the impact of race by suburban/central city location Los Angeles and Atlanta, and only a very marginally significant difference ( $p < .10$ ) in Detroit, where suburban firms may, if anything, be slightly less likely to move away from neighborhoods with an increasing proportion of black residents than central city firms. But even in Detroit the *overall* race effect is insignificant in both the city and the suburbs. The overall race effect in the suburbs is significant only in Boston and Los Angeles. Results in Model 3 suggest that there

---

<sup>8</sup> See footnote 7 for how the significance level of the overall race effect was calculated for each metropolitan area.

may be a bigger substantive race effect among firms with white supervisors than minority supervisors, but this difference is not statistically significant—though the overall race effects are again significant in Boston and Los Angeles. Finally, Model 4 shows that the impact of race does not vary by initial (1980) proportion of neighborhood residents who are African-American, nor is there any significant interaction with changes in racial composition. Figure 1 provides a useful summary of the results in Models 1 through 3 by visually displaying the odds ratios associated with the key race variable. Once again note that the race effect is only significant in Boston and Los Angeles, but not in Atlanta or Detroit.<sup>9</sup>

**Figure 1. Odds Ratios Showing the Simulated Effect of a One Percentage Point Increase in the Proportion of a Neighborhood's Population Which is Black on Firm Relocation Intentions, by Metropolitan Area and Firm Type**



Significance of Overall Race Effect: \*\*\*p<0.01 \*\*p<0.05 \*p<0.10

<sup>9</sup> See footnote 7 for how the significance level of the overall race effect was calculated for each metropolitan area.

Analyses were stratified by other sets of variables to examine whether the race effect is larger among other types of firms. For the most part differences in the magnitude of the race effect across firms were insignificant, with a couple of exceptions. Firms which have been at the same site 10 years or more are slightly less responsive ( $p < 0.10$ ) to neighborhood-level changes in racial composition than firms in sites for less than 10 years in Boston and Detroit. Firms with a long tenure in a particular site may be more settled and accustomed to doing business in that area, and therefore less apt to respond to modest changes in the neighborhood. Retail trade firms were considerably more likely ( $p < 0.05$ ) to want to move away from sites with an increasing proportion of African-American residents than non-retail firms in Boston, though in Atlanta, the opposite is true. It is not clear why the retail firms respond differently to race than non-retail firms in Atlanta and Boston, though a possible explanation is that retail firms in Atlanta may cater to the growing black middle class.

None of these analyses explain why the *overall* race effect is larger in Boston and Los Angeles than in Detroit and Atlanta. This difference remains even after controlling for sector and the whole array of variables shown in Tables 2 and 3. One characteristic that Detroit and Atlanta have in common is the presence of relatively large African American populations. But Model 4 in Table 3 controlled for the size of the neighborhood's African American population.<sup>10</sup> Neither are metropolitan area differences due to differences in white representation among supervisors. Model 3 in Table 4, for example, showed continued differences in relocation intentions across metropolitan areas when only white supervisors are considered.

Other context-specific factors probably explain the differences across the metropolitan areas. In Detroit and Atlanta, the firms that are sensitive to race may have already moved away from blacker neighborhoods, to the suburbs or exurbs, or even out of the metropolitan area altogether. While some black suburbanization has occurred in Detroit, and much more extensively in Atlanta, racial boundaries have been maintained over long periods of time in these two metropolitan areas. For decades now Detroit has

---

<sup>10</sup> In addition to the continuous variable shown in that model, racial cutoffs were also used, such as running models with only tracts with smaller African-American populations in all four cities. The results still show significant differences across metropolitan areas.

consisted of a central city demographically dominated by African-Americans surrounded by largely white suburbs (Farley 1996). In Atlanta, even the suburbs remain highly segregated by race and class, with more affluent whites concentrated in the north and blacks in other areas, particularly the south (Research Atlanta Inc., 1993; Rutheiser 1996). So firms in these two metropolitan areas which are very racially conscious may have already made decisions to move far away from areas which have been at greater risk of racial turnover. In contrast, the racial dynamics in Boston and especially Los Angeles continue to evolve. Blacks have been a major presence in Boston only in the post World War II period. Likewise, blacks make up a relatively small proportion of LA's population, which is also considerably more multi-ethnic than any of the other three metropolitan areas. And firms which have racial preferences continue to be cognizant and responsive to increases in the black population in various neighborhoods, and take this into account in their relocation decisions in these two metropolitan areas.

Further research is needed to explain why Atlanta and Detroit differ from Boston and Los Angeles. In the coming months the analysis presented here will be augmented by using Geographic Information Systems (GIS) mapping and other more sophisticated spatial analysis. In terms of descriptive analysis, comparing the location of firms which are planning to relocate versus those not planning to relocate on a GIS grid may help shed more light on the spatial dynamics within metropolitan areas. In terms of multivariate analysis, using the census tract as the indicator of a site's characteristics (as done here) may be insufficient. Firms likely take into account broader, less bounded areas. Subsequent analyses will give weight to the characteristics of surrounding neighborhoods. This will enable a more rigorous examination of whether the changing racial composition of sites, more adequately defined, influence firm relocation intentions.

## **Conclusion**

While prior studies have examined such related issues as employers' racial preferences and skill requirements in the modern workplace, no poverty researcher has conducted a comprehensive study of the role of site racial composition in firm relocation decisions. Using data from a representative sample of

firms in the Boston, Atlanta, Los Angeles, and Detroit metropolitan areas, we assess the extent to which these firms express a desire to flee neighborhoods with a growing proportion of African-Americans.

Results indicate that firms in neighborhoods with a growing proportion of African-Americans are more likely to express relocation intentions in Boston and Los Angeles. The effect remains highly statistically significant even after controlling for an array of firm and neighborhood-level characteristics, such as the proportion of a firm's employees and customers who are black, the race of the firm's supervisor, firm sector, changing neighborhood income levels, rents, and population. Thus, firms in these metropolitan areas appear to exhibit a distaste for neighborhoods with growing African-American populations. In Boston, the race effect was even larger among suburban firms, as such firms may already be more averse to minority populations. While the race effect is substantively larger among firms with white supervisors versus minority supervisors in both Boston and Los Angeles, the difference is not statistically significant.

Thus, spatial mismatches in Boston and Los Angeles are likely exacerbated by firm behavior. Results here indicate that the previously documented flight of firms away from cities to suburbs is not based on race-neutral relocation decisions, as is implied by the spatial mismatch hypothesis. Rather, firms in these two cities continue to move away from neighborhoods with an increasing proportion of African-Americans—even after controlling for changes in income levels, rents, central city location, and the like. While it is true that this analysis has not necessarily controlled for all site characteristics that may be correlated with race, it still controls for many of the most salient area characteristics.

Curiously, changes in racial composition have little effect on firm relocation intentions in Detroit and Atlanta. While it remains unclear why race matters more in Boston and Los Angeles than in Detroit and Atlanta, firms which are sensitive to race composition in the latter two cities may have already moved away from blacker neighborhoods years ago. Detroit and Atlanta have longer histories of black/white balkanization and conflict than Boston and Los Angeles. Even in Atlanta where black suburbanization has been increasing rapidly, the suburbs remain highly segregated (Rutheiser 1996). Boston and Los Angeles

have smaller black populations and shorter, if just as intense, histories of conflict between blacks and whites. These two cities may be characterized by a more dynamic race context, and firms may therefore still be selecting themselves out of neighborhoods which contain an increasing proportion of African-Americans. More research on the differences between Boston and Los Angeles and Detroit and Atlanta is clearly needed, and future analysis will continue in this vein.

## References

- Anderson, Elijah. 1990. *Streetwise: Race, Class, and Change in an Urban Community*. Chicago: The University of Chicago Press.
- Bayor, Ronald H. *Race and the Shaping of Twentieth-Century Atlanta*. Chapel Hill: The University of North Carolina Press.
- Blair, John P. And Robert Premus. 1987. "Major Factors in Industrial Location: A Review." *Economic Development Quarterly* 1: 72-85.
- Brooks-Gunn, Jeanne, Greg J. Duncan, Pamela Kato Klebanov, and Naomi Sealand. 1993. "Do Neighborhoods Influence Child and Adolescent Development?" *American Journal of Sociology* 99: 353-395.
- Cain, Glen G. 1986. "The Economic Analysis of Labor Market Discrimination: A Survey." Pp. 693-785 in *Handbook of Labor Economics*, edited by Orley Ashenfelter and Richard Layard. New York: Elsevier Science Publishers.
- Calzonetti, F.J. and Robert T. Walker. 1991. "Factors Affecting Industrial Location Decisions: A Survey Approach." Pp. 221-240 in *Industry Location and Public Policy*, edited by Henry W. Herzog, Jr. and Alan M. Schlottmann. Knoxville, TN: University of Tennessee Press.
- Carlton, Dennis W. 1979. "Why Do New Firms Locate Where They Do? An Econometric Model." Pp. 13-50 in *Interregional Movements and Regional Growth*, edited by William C. Wheaton. Washington, D.C.: The Urban Institute Press.
- \_\_\_\_\_. 1983. "The Location and Employment Choices of New Firms: An Econometric Model with Discrete and Continuous Endogenous Variables." *Review of Economics and Statistics* 65: 440-449.
- Clark, William. 1996. "Residential Patterns: Avoidance, Assimilation, and Succession." In *Ethnic Los Angeles* eds. Roger Waldinger and Mehdi Bozorgmehr. New York: Russell Sage Foundation.
- Duncan, Greg J., Jeanne Brooks-Gunn, and Pamela Kato Klebanov. 1994. "Economic Deprivation and Early Childhood Development." *Child Development* 65: 267-289.

- Eisinger, Peter K. 1980. *The Politics of Displacement: Racial and Ethnic Transition in Three American Cities*. New York: Academic Press.
- Ellwood, David T. 1986. "The Spatial Mismatch Hypothesis: Are There Teenage Jobs Missing in the Ghetto?" Pp. 147-190 in *The Black Youth Employment Crisis*, edited by Richard B. Freeman and Harry J. Holzer. Chicago: University of Chicago Press.
- Farley, Reynolds. 1996. "Race, Space, and Economic Prosperity: A History of Controversy and Conflict." Unpublished manuscript.
- Farley, Reynolds, and William H. Frey. 1994. "Changes in the Segregation of Whites from Blacks During the 1980s: Small Steps Toward a More Integrated Society." *American Sociological Review* 59(1): 23-45.
- Fernandez, Robert M. 1994. "Race, Space, and Job Accessibility: Evidence from a Plant Relocation." *Economic Geography* 70(4): 390-416.
- \_\_\_\_\_. 1997. "Spatial Mismatch: Housing, Transportation and Employment in Regional Perspective." In *Dealing With the Urban Crisis: Linking Research to Action*, edited by Burton Weisbrod and James Worthy. Evanston, IL: Northwestern University Press.
- Fernandez, Roberto M. And David Harris. 1992. "Social Isolation and the Underclass." Pp. 257-293 in *Drugs, Crime, and Social Isolation: Barriers to Urban Opportunity*, edited by Adele V. Harrell and George E. Peterson. Washington, D.C.: The Urban Institute Press.
- Galster, George C. 1990. "Racial Discrimination in Housing Markets during the 1980s: A Review of the Audit Evidence." *Journal of Planning Education and Research* 9: 165-75.
- Gottlieb, Paul D. 1995. "Residential Amenities, Firm Location and Economic Development." *Urban Studies* 32 9: 1413-1436.
- Grant, David, Oliver, Melvin, and Angela James. 1996. "African Americans: Social and Economic Bifurcation." In *Ethnic Los Angeles* eds. Roger Waldinger and Mehdi Bozorgmehr. New York: Russell Sage Foundation.
- Hanson, Susan, and Geraldine Pratt. 1992. "Dynamic Dependencies: A Geographic Investigation of Local Labor Markets." *Economic Geography* 68: 373-405.

- Hogan, Dennis P. And Evelyn M. Kitagawa. 1985. "The Impact of Social Status, Family Structure, and Neighborhood on the Fertility of Black Adolescents." *American Journal of Sociology* 90: 825-855.
- Holzer, Harry J. 1991. "The Spatial Mismatch Hypothesis: What Has the Evidence Shown?" *Urban Studies* 28(1): 105-22.
- \_\_\_\_\_. 1996. *What Employers Want: Job Prospects for Less-Educated Workers*. New York: Russell Sage Foundation.
- Holzer, Harry J., and Keith R. Ihlanfeldt. 1996. "Spatial Factors and the Employment of Blacks at the Firm Level." Research Report no. 96-358, Population Studies Center, University of Michigan—Ann Arbor.
- Holzer, Harry J., Ihlanfeldt, Keith R., and David L. Sjoquist. 1994. "Work, Search, and Travel Among White and Black Youth." *Journal of Urban Economics* 35: 320-45.
- Ihlanfeldt, Keith R., and David L. Sjoquist. 1989. "The Impact of Job Decentralization on the Economic Welfare of Central City Blacks." *Journal of Urban Economics* 26: 110-30.
- \_\_\_\_\_. 1990. "Job Accessibility and Racial Differences in Youth Employment Rates." *American Economic Review* 80(1): 267-76.
- Jencks, Christopher and Susan E. Mayer. 1990. "The Social Consequences of Growing Up in a Poor Neighborhood." Pp. 111-186 in *Inner-City Poverty in the United States*, edited by Laurence E. Lynn, Jr. and Michael G.H. McGeary. Washington, D.C.: National Academy Press.
- Kain, John F. 1968. "Housing Segregation, Negro Employment, and Metropolitan Decentralization." *The Quarterly Journal of Economics* 82(2): 175-97.
- Kasarda, John. 1995. "Industrial Restructuring and the Changing Location of Jobs." Pp. 215-267 in *State of the Union: America in the 1990s*, Vol. 1, edited by Reynolds Farley. New York: Russell Sage Foundation.
- Kirschenman, Joleen and Kathryn M. Neckerman. 1991. "'We'd Love to Hire Them, but...': The Meaning of Race for Employers." Pp. 203-232 in *The Urban Underclass*, edited by Christopher Jencks and Paul E. Peterson. Washington, D.C.: The Brookings Institution.

- Little, Roderick, and Donald Rubin. 1987. *Statistical Analysis with Missing Data*. New York: John Wiley & Sons.
- Massey, Douglas S., and Nancy Denton. 1993. *American Apartheid*. Cambridge, MA: Harvard University Press.
- Morgan, William E. 1967. *Taxes and the Location of Industry*. Boulder, Colorado: University of Colorado Press.
- Newman, Katherine, and Chauncy Lennon. 1995. "The Job Ghetto." *The American Prospect* 22 (summer): 66-67.
- O'Connor, Thomas H. 1993. *Building a New Boston: Politics and Urban Renewal 1950-1970*. Boston: Northeastern University Press.
- Peterson, George E., and Wayne Vroman. 1992. "Urban Labor Markets and Economic Opportunity." In *Urban Labor Markets and Job Opportunity*, edited by George E. Peterson and Wayne Vroman. Washington, D.C.: The Urban Institute Press.
- Research Atlanta, Inc. 1993. "The Dynamics of Change: An Analysis of Growth in Metropolitan Atlanta Over the Past Two Decades." Policy Research Center, Georgia State University.
- Rutheiser, Charles. 1996. *Imagineering Atlanta*. London: Verso.
- Schmenner, Roger W., Joel C. Huber, and Randall L. Cook. 1987. "Geographic Differences and the Location of New Manufacturing Facilities." *Journal of Urban Economics* 21: 83-104.
- Turner, Margery Austin, Michael Fix, and Raymond J. Struyk. 1991. *Opportunities Denied, Opportunities Diminished: Racial Discrimination in Hiring*. Washington, D.C.: The Urban Institute Press.
- United States Bureau of the Census. 1991. *State and Metropolitan Area Data Book, 1991*. Washington, DC: U.S. Government Printing Office.
- Waldinger, Roger, and Mehdi Bozorgmehr. 1996. "The Making of a Multicultural Metropolis." In *Ethnic Los Angeles* eds. Roger Waldinger and Mehdi Bozorgmehr. New York: Russell Sage Foundation.
- White, Michael J. 1987. *American Neighborhoods and Residential Differentiation*. New York: Russell Sage Foundation.

- Wilson, William Julius. 1987. *The Truly Disadvantaged*. Chicago: University of Chicago Press.
- \_\_\_\_\_. 1996. *When Work Disappears: The World of the New Urban Poor*. New York: Alfred A. Knopf.
- Yinger, John. 1986. "Measuring Racial Discrimination with Fair Housing Audits: Caught in the Act." *American Economic Review* 76: 991-93.
- \_\_\_\_\_. 1995. *Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination*. New York: Russell Sage Foundation.
- Zax, Jeffrey S. 1991. "Compensation for Commutes in Labor and Housing Markets." *Journal of Urban Economics* 30: 192-207.
- Zax, Jeffrey S. and John F. Kain. 1996. "Moving to the Suburbs: Do Relocating Companies Leave Their Black Employees Behind?" *Journal of Labor Economics* 14(3): 472-504.