

## **Joblessness and Poverty in America's Central Cities: Causes and Policy Prescriptions**

John D. Kasarda  
*University of North Carolina*

Kwok-fai Ting  
*Chinese University of Hong Kong*

### *Abstract*

Two paradigms pervade the policy debate on the causes of urban joblessness and poverty: (1) a structural, nonvoluntaristic perspective emphasizing the roles of urban economic change, residential segregation, and spatial and skills mismatches, and (2) a rational-choice, voluntaristic perspective contending that the generosity and ready availability of welfare programs have removed the incentive for poor persons to accept low-paying jobs. This article brings together propositions of each paradigm into a comprehensive theoretical model. The study measured and tested key causal operators of the model for a sample of 67 large U.S. cities, with special attention to race and gender.

Results show that structural and welfare disincentive perspectives are not in conflict but rather operate side by side to reinforce joblessness and poverty. Race and gender, especially the role of urban space for women's work, are important. The article raises pertinent policy issues derived from the two perspectives and from the analysis.

**Keywords:** Policy; Welfare; Minorities

### **Introduction**

The rise of joblessness and poverty in America's major cities, especially among minorities, has generated considerable scholarly and public debate. Out of that debate, two competing paradigms (or perspectives) have emerged that differ both in causal explanations and in policy prescriptions. The first emphasizes housing segregation and structural changes in metropolitan economies that have reduced job accessibility and weakened earnings for a substantial portion of central-city residents (Kain 1968; Kasarda 1985; Wilson 1987). The second contends that the size and ready availability of government welfare programs have removed the incentive to work for many city residents by actually making public assistance a rational choice over employment (Anderson 1978; Mead 1989; Murray 1984).

In this article, we elaborate on these two paradigms and specify their fundamental propositions. We then bring together the specifications of each paradigm in a comprehensive theoretical model. To assess the model, we include key causal operators (spatial and skill mismatches) in the structural approach and pivotal nonrecursive feedback effects (from welfare reciprocity to higher rates of urban joblessness and poverty) in the disincentive approach. Our goal is to assess the plausibility and relative explanatory power of the two approaches, giving special attention to race and gender.

### **Structural barriers versus welfare disincentives**

Stripped to their basics, both paradigms view post-1970 rises in urban poverty as a direct consequence of less-skilled city residents, particularly African Americans, no longer working as regularly as they once did. The two perspectives differ sharply, however, as to whether such joblessness is voluntary. Those taking a nonvoluntary perspective see high inner-city unemployment resulting from limits to residential choice and from structural barriers to less-skilled city residents created by the suburbanization of blue-collar jobs and their replacement in the city by white-collar jobs typically requiring education above that possessed by most disadvantaged residents. Central to the structural barrier perspective is the mismatch hypothesis, which has two versions: *spatial* mismatch and *skills* mismatch.

The spatial mismatch hypothesis was introduced by Kain (1968). He argued that the suburbanization of low-skilled jobs, especially in manufacturing, together with housing market discrimination that residentially confined African Americans to the central cities, isolated African Americans from decentralizing employment opportunities. Suburbanization of manufacturing was seen as directly reducing opportunities for low-skilled jobs in the central cities while increasing the job-search and commuting costs of city residents who were able to secure suburban blue-collar employment. Residential segregation of African Americans, as Wilson (1987) and Massey (1990) further argued, reinforces their geographic and social isolation from jobs and magnifies poverty problems.

Kain's article sparked more than two decades of debate in the scholarly literature regarding the impact of changing job locations and housing proximity on urban unemployment and earnings (see, for example, Ellwood 1986; Farley 1987; Harrison 1974; Ihlanfeldt and Sjoquist 1989, 1990, 1991; Leonard 1987;

Mooney 1969; Offner and Saks 1971; Price and Mills 1985; Straszheim 1980; Vrooman and Greenfield 1980; Zax 1990; Zax and Kain 1991). The wide range of methods and indicators that these studies used to measure spatial access and employment and earnings outcomes produced an equally wide range of results. Because of these inconsistent findings, two widely cited reviews of studies addressing the spatial mismatch hypothesis conclude that the status of the hypothesis remains open (Holzer 1991; Jencks and Mayer 1990). Both assessments call for better measurement and modeling of spatial mismatch, with controls for competing explanations.<sup>1</sup>

A conceptually related, but analytically distinct, component of the structural barrier explanation of central-city joblessness is the skills mismatch hypothesis. According to this hypothesis, modern advances in transportation, communication, and manufacturing technologies interacting with the changing structure of the national and international economy have transformed major cities from centers of material goods production to centers of information exchange, finance, and administration (Johnson and Oliver 1992; Kasarda 1976, 1985; Noyelle 1987; Stanback 1991). In the transformation process, many manufacturing, warehousing, and other goods-processing establishments that once provided ample employment opportunities for less-educated (and presumably, less-skilled) city residents either completely vanished or relocated to the suburbs, exurbs, and abroad (Wacquant and Wilson 1989; Wilson 1987). Traditional urban blue-collar industries were replaced by knowledge-intensive, white-collar service industries that typically require some education beyond high school. Although *spatially* accessible, these white-collar jobs are not *functionally* accessible to most poorly educated city residents who lack the skills to perform them (Kasarda 1990, 1993a, 1995; Lichter 1988).

Structuralists argue that skills mismatches compounded by spatial mismatches create a double barrier to job access for many city residents (Kain 1992). Lacking sufficient education to participate in new urban growth industries and the transportation or financial means either to commute to dispersed suburban jobs or to relocate near them, increasing numbers of disadvantaged city residents find themselves spatially and functionally cut off from employment opportunity. Structuralists go on to argue that resulting high concentrations of inner-city joblessness triggered

---

<sup>1</sup> Kain (1992) provides a comprehensive review of the research on the spatial mismatch hypothesis, including a critique of the Holzer (1991) and Jencks and Mayer (1990) reviews.

increasingly high concentrations of poverty that, in turn, necessitated welfare assistance to more households in need. Structuralists contend that, if welfare had not been available, deteriorating economic conditions in the cities since the late 1960s would have resulted in far more households in poverty (Wilson 1987).

An opposing view of city joblessness, poverty, and welfare is offered by conservative scholars who take a voluntaristic perspective. The problem, according to this group, is not primarily a lack of appropriate jobs nearby or skill barriers to employment but is the condition that readily available welfare has created in which it is rational for many to choose nonwork over work. Extensive welfare programs, introduced in the 1960s and 1970s, effectively changed the economic rewards and penalties of behaviors such as family dissolution and out-of-wedlock births that reinforce poverty.

Banfield (1969) was among the first to articulate the position that welfare programs discourage employment and hold people in poverty. Martin Anderson (1978), the chief architect of Ronald Reagan's economic recovery program, estimated that guaranteed income programs such as those proposed during the Carter administration could reduce work effort by as much as 50 percent.

In his controversial yet influential book, *Losing Ground*, Murray (1984) marshals an extensive array of statistics suggesting that a low-income urban family can actually improve its financial situation by dissolving its marriage, withdrawing its members from the labor force, and subsisting on a variety of welfare programs. According to Murray, the ready availability of income transfer payments, free medical care, subsidized housing, food stamps, and other forms of government assistance discouraged work and made it profitable for the poor to behave in the short term in ways that were destructive to them in the long term. The unanticipated outcome of these programs, Murray contends, was actually to increase joblessness, out-of-wedlock births, and poverty populations because many individuals who program designers did not intend to be beneficiaries modified their behavior to qualify. In Murray's words, "We tried to provide for the poor and produced more poor instead. We tried to remove the barriers to escape from poverty and inadvertently built a trap" (1984, 9).

Murray's thesis was developed further by advocates of mandatory work for people receiving welfare. Mead (1988, 1989), for

example, argues that plenty of low-skilled jobs exist in the central cities but that under the present set of welfare benefits and wage levels there is no incentive for the poor to accept those jobs. Yet, according to Mead, low-wage, entry-level jobs are important bridges to better-paying jobs that would eventually lift many people out of poverty while providing indirect social benefits to family and community.

Weidenbaum (1991) echoes Mead's position that the ready availability and relative generosity of welfare programs (rather than an insufficient number of low-skilled jobs nearby) made the poor indifferent to low-wage jobs and encouraged unemployment. He, therefore, concludes that it is a mistake to offer welfare benefits without imposing work requirements on recipients, even if the pay is low.

As with spatial and skills mismatch arguments, welfare disincentive explanations of joblessness and poverty did not escape substantial scholarly scrutiny and critique (see Danziger and Gottschalk 1985; Duncan and Hoffman 1991; Ellwood and Summers 1986; McLanahan, Garfinkel, and Watson 1988). Critics marshaled their own evidence, suggesting that the level of welfare does not have a significant negative effect on work effort or family stability. Among their strongest points was that average cash assistance to welfare households actually decreased in real terms after 1972 (because states failed to adjust benefit levels for inflation) while joblessness and family instability continued to rise. Murray (1986), Mead (1989), and others, however, countered by pointing out that reduced real cash benefits were more than offset by the expansion of noncash benefit programs such as food stamps, Medicaid, and housing assistance. Equally as important, they further argued, was the growing ease since the early 1970s with which recipients could gain access to a variety of public assistance programs. Greater program accessibility increased both the number and proportion of households receiving multiple forms of welfare, with public assistance being most pervasive and generous in large cities.

Tanner, Moore, and Hartman (1995) estimated the total income value of six welfare programs (Aid to Families with Dependent Children [AFDC], food stamps, Medicaid, housing assistance, nutrition assistance, and utilities assistance) for a single parent with two young children in each of the 50 states and 16 selected cities. They then compared the dollar value of that tax-free benefits package to the amount of pretax income a person would have to earn in a job to equal the value of the benefits package. They reported that, in virtually all states, the benefits package

pays substantially more than the type of entry-level job that a typical welfare recipient can expect to find, with benefits especially high in large northeastern and midwestern cities (the same cities that have undergone the greatest economic restructuring and traditional blue-collar job loss). For example, Tanner, Moore, and Hartman (1995) calculated that welfare provides the equivalent of an hourly pretax wage of \$14.75 in New York City, \$12.45 in Philadelphia, \$11.35 in Baltimore, and \$10.90 in Detroit. Based on their calculations, they concluded that, for most public assistance recipients, the movement from welfare to work would result in a substantial decline in real income, thus posing a strong disincentive to seeking employment.<sup>2</sup>

### **Model specification**

To assess the relative impact of urban economic restructuring and welfare program disincentives on city joblessness and poverty, we constructed a theoretical model incorporating and synthesizing specifications central to each paradigm. This full-form model is presented in figure 1, and its specifications are elaborated below. For all specifications, the city is the unit of analysis.

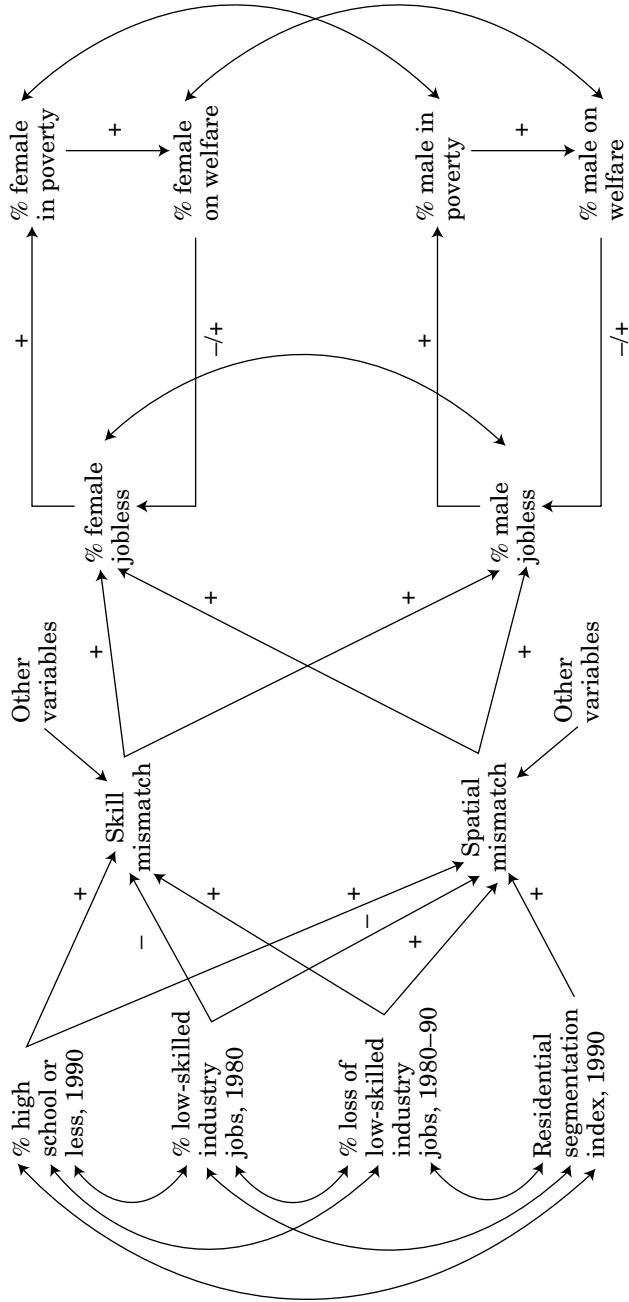
Beginning with background factors, the transformation of cities from centers of goods processing to centers of information processing contributes to a loss of low-skilled city jobs. Low-skilled-job loss leads to greater spatial and skill mismatches for large portions of city residents with limited education. The roles of the urban economic base and its transformation are measured by job composition in 1980 and change between 1980 and 1990. Other things being equal, a higher proportion of low-skilled jobs in 1980 would be expected to lessen the extent of future spatial and skill mismatches, while a loss of low-skilled jobs in the subsequent 10 years would intensify the degree of mismatches.

Two other pertinent background variables are included in the model: low-skilled labor supply and residential segregation. From the labor-supply point of view, a larger pool of poorly educated city residents (percent of adults with high school education or less) increases the competition for available low-skilled jobs and creates greater skill and spatial mismatches in the city. Residents of a highly segregated city have fewer choices in locating closer to their job market, thus causing a longer commuting

---

<sup>2</sup> Earlier, Ellwood (1988) provided an excellent analysis of returns to welfare versus work.

Figure 1. Theoretical Model



distance; for low-skilled workers who cannot afford longer commutes, unemployment often results.<sup>3</sup>

In the structuralist view, cities with higher spatial and skill mismatches should exhibit higher jobless rates. Structuralists further hypothesize that higher jobless rates result in greater percentages of people in poverty and, in turn, larger proportions of people receiving welfare.

Those who view welfare as a poverty trap hypothesize a vicious cycle among welfare, joblessness, and poverty. The welfare disincentive paradigm posits that the relative generosity of welfare programs and expanded eligibility of urban households discourage work while encouraging family dissolution, out-of-wedlock births, and other behaviors that contribute to greater numbers in poverty. The critical specification in the welfare disincentive paradigm, however, is that the widespread availability of public assistance seriously reduces the incentive to work among large numbers of low-income persons, thereby increasing their unemployment rate. If this is the case, a significant positive feedback effect on city jobless rates should be observable from the proportion of residents receiving public assistance, which reinforces the poverty cycle.

Since race and gender may confound aggregated parameter estimates, it is important to evaluate the relationships among joblessness, poverty, and welfare receipt separately by race for men and women (Jencks and Mayer 1990; Kain 1992). We, therefore, include in the model two sets of measures and specify two feedback loops for men and women, by race. With two sets of parallel measures, we also specify three correlations across equations between the error terms. Such a specification is typically referred to as “the seemingly unrelated regression system” (Hargens 1988, 69). The error terms of the dependent variables are correlated when there are common omitted variables. This situation is highly probable in our model, which includes identical dependent variables for two different populations. Failure to incorporate such specifications will lead to inefficient parameter estimates and faulty significance tests (Hargens 1988).

Most studies have focused their discussions and analyses on African Americans. If propositions from the economic restructuring and the welfare disincentive paradigms are valid, they

---

<sup>3</sup> For an elaborated discussion of geographic industrial restructuring and spatial mismatch, including regional differences in urban economic form, the roles of migration and immigration, and whether people follow jobs or jobs follow people, see Kasarda 1995.

should apply to less-educated urban white residents as well. We thus estimate the model illustrated in figure 1 separately for non-Hispanic whites and non-Hispanic blacks (African Americans) and compare model parameters for interracial consistencies or differences.<sup>4</sup>

## Methods, data, and measures

The theoretical model presented in figure 1 is a nonrecursive model that involves feedback relationships among welfare, joblessness, and poverty and correlations between error terms across equations. The conventional ordinary least squares method is not appropriate in this situation. Instead, we use the full-information maximum likelihood (FIML) method to estimate model parameters. Maximum likelihood chooses model estimates based on the criterion that the estimates maximize the probability of obtaining the observed sample data. The basic principle of the FIML method is to estimate the model as a system rather than as a set of separated equations.

FIML was the first method proposed for the estimation of simultaneous equations but has become popular only recently due to its computational complexity (Maddala 1977). The advantage of estimating the model coefficients simultaneously is that information from an equation of an interdependent system can be used to get better coefficient estimates in other equations; thus the estimates are more efficient (i.e., the estimators have smaller variance). If we know more about a system, we should make a better guess on the unknown of a system (Rothenberg 1990). For further discussion on the estimation methods, see the econometrics literature on simultaneous equation models (Chow 1983; Johnston 1984; Judge et al. 1985; Maddala 1977).

Data for testing the model are from the 1980 and 1990 U.S. Census Public Use Microdata Sample (PUMS) 1 percent and 5 percent samples, the 1990 Census of Population and Housing Summary Tape File 3A, and the Urban Underclass Database (Kasarda 1993b). Our analysis is performed at the city level, with the initial sample consisting of the 100 largest metropolitan central cities in the nation based on their population size in 1980. We aggregated individual-level data from PUMS to obtain the city-level characteristics. Using Public Use Microdata Area

---

<sup>4</sup> Limited numbers of Hispanics and Asians residing in many of our sample cities (to be described in the next section) precluded us from estimating model parameters separately for Hispanics and Asians.

(PUMA) codes and geographic identifiers on the PUMS files, we were able to identify 67 cities (see table 1) for which we could obtain both place of residence and place of work of individuals sampled as well as other pertinent variables to construct all measures matched to city boundaries.<sup>5</sup>

*Table 1. Central Cities Included in the Analysis*

---

Amarillo, TX	Memphis, TN
Anchorage, AK	Minneapolis, MN
Austin, TX	Mobile, AL
Baltimore, MD	Montgomery, AL
Baton Rouge, LA	Nashville-Davidson, TN
Boston, MA	New Orleans, LA
Buffalo, NY	New York, NY
Chattanooga, TN	Newark, NJ
Chicago, IL	Norfolk, VA
Cleveland, OH	Philadelphia, PA
Colorado Springs, CO	Portland, OR
Columbia, GA	Providence, RI
Denver, CO	Richmond, VA
Des Moines, IA	Rochester, NY
Detroit, MI	Sacramento, CA
Flint, MI	San Antonio, TX
Fort Lauderdale, FL	San Diego, CA
Fort Wayne, IN	San Francisco, CA
Fort Worth, TX	San Jose, CA
Fresno, CA	Seattle, WA
Gary, IN	Shreveport, LA
Grand Rapids, MI	Spokane, WA
Greensboro, NC	Springfield, MA
Indianapolis, IN	St. Louis, MO
Jackson, MI	St. Paul, MN
Jacksonville, FL	St. Petersburg, FL
Jersey City, NJ	Stockton, CA
Knoxville, TN	Syracuse, NY
Lexington-Fayette, KY	Tampa, FL
Lincoln, NE	Virginia Beach, VA
Long Beach, CA	Washington, DC
Los Angeles, CA	Wichita, KS
Lubbock, TX	Worcester, MA
Madison, WI	

---

<sup>5</sup> The Urban Underclass Database technical documentation (Kasarda 1993b) describes how the PUMA codes and geographic identifiers are used to aggregate PUMS data to city boundaries. For example, if a geographic match of PUMA codes to city boundaries exists and the PUMS records identify place of work for that matched city, the user can obtain actual city job composition (based on the education, industry, etc., of jobholders) regardless of place of residence of the jobholders. These place-of-work identifiers enable the user to omit city residents who do not work in the city and to include suburban residents and other noncity residents who do work in the matched city, along with their full range of individual attributes (e.g., occupation, education, race, gender).

We had to exclude the other 33 cities from the sample because the 1990 PUMS files did not provide appropriate geographic identifiers of the place individuals were working, making it impossible to construct key measures on the characteristics of jobs (based on characteristics of jobholders) in these cities. Because the Hispanic and Asian populations are small in many of the 67 cities, and the 1 percent and 5 percent sampling schemes in PUMS further reduce the available sample sizes for these two minority groups, we confined our analysis to non-Hispanic whites and non-Hispanic blacks (African Americans).

Table 2 lists all variables used in the analysis with their means and standard deviations. Table 3 reports the sample correlation matrix. The constructed variables are described below.

To measure city industrial mix and its change, we matched more than 200 census industry codes from the 1980 and 1990 files, focusing on jobs in low-skilled industries. We defined low-skilled industries as those in which half or more of the employees had no more than a high school education in 1990 (compiled from the 1990 PUMS file). Though an imperfect measure of skill level, education has been found to come closest to tapping this concept (Bound and Freeman 1990; Moss and Tilly 1991). Having determined the educational skill status of industries, we captured the city industrial base and its transformation by the percentage of city jobs in low-skilled industries in 1980 and the percent change in these jobs between 1980 and 1990.

We measured residential segregation between non-Hispanic whites and African Americans by the index of dissimilarity based on census tract-level data using the formula

$$(0.5 \sum_I |NHW_i - NHB_i|)100,$$

where  $NHW_i$  and  $NHB_i$  denote the proportion of non-Hispanic whites and the proportion of non-Hispanic blacks residing in the census tract. The index can be interpreted as the percentage of African Americans who would have to switch tracts to attain a settlement pattern proportionate with that of non-Hispanic whites in all city tracts and equal to the overall city proportion. We measured education (as a proxy for skill level) of city residents by the percent of persons with no more than a high school education among those aged 16 to 64 and not enrolled in school. We measured education separately for non-Hispanic whites and African Americans.

Table 2. Variable Definitions, Means, and Standard Deviations

Variable	Definition	Mean	Standard Deviation
PCTLSJ80	Percent low-skilled industry jobs, 1980	41.67	8.12
PCTLSJL	Percent low-skilled industry job loss, 1980-1990	-15.11	25.09
SEGINDEX	Residential segregation index, 1990	63.14	12.50
Non-Hispanic whites (1990 measures)			
HSORLS_W	Percent residents with high school education or less	44.13	12.29
EDMATCH_W	Education (skill) mismatch (percent)	1.71	8.94
SPMATCH_W	Spatial mismatch (percent)	20.40	3.29
JOBLESS_WW	Percent jobless (women)	32.59	6.43
JOBLESS_WM	Percent jobless (men)	14.74	4.33
POVERTY_WW	Percent in poverty (women)	14.03	4.47
POVERTY_WM	Percent in poverty (men)	10.04	3.18
WELFARE_WW	Percent receive welfare assistance (women)	7.80	4.69
WELFARE_WM	Percent receive welfare assistance (men)	4.13	2.32
Non-Hispanic blacks (1990 measures)			
HSORLS_B	Percent residents with high school education or less	63.02	9.23
EDMATCH_B	Education (skill) mismatch (percent)	20.60	7.62
SPMATCH_B	Spatial mismatch (percent)	22.97	5.08
JOBLESS_BW	Percent jobless (women)	39.67	9.24
JOBLESS_BM	Percent jobless (men)	27.35	7.67
POVERTY_BW	Percent in poverty (women)	37.40	10.25
POVERTY_BM	Percent in poverty (men)	24.24	6.79
WELFARE_BW	Percent receive welfare assistance (women)	24.12	9.97
WELFARE_BM	Percent receive welfare assistance (men)	7.61	4.64

*Table 3. Correlation Matrix of Variables*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) HSORLS_W	1.000									
(2) HSORLS_B	0.479	1.000								
(3) PCTLSj80	0.495	0.182	1.000							
(4) PCTLSJL	0.471	0.479	0.312	1.000						
(5) SEGINDEX	0.236	0.650	0.029	0.473	1.000					
(6) EDMATCH_W	0.854	0.232	0.214	0.483	0.123	1.000				
(7) SPMATCH_W	-0.057	-0.032	-0.272	-0.026	0.266	-0.024	1.000			
(8) EDMATCH_B	-0.031	0.710	-0.327	0.388	0.551	0.077	0.025	1.000		
(9) SPMATCH_B	-0.042	0.198	-0.326	0.097	0.514	-0.015	0.878	0.289	1.000	
(10) JOBLESS_WM	0.273	0.187	0.095	0.560	0.367	0.336	0.296	0.181	0.388	1.000
(11) JOBLESS_WW	0.376	0.296	0.251	0.426	0.302	0.259	0.326	0.055	0.348	0.733
(12) JOBLESS_BM	0.241	0.134	0.055	0.425	0.340	0.323	0.216	0.152	0.261	0.600
(13) JOBLESS_BW	0.167	0.166	0.063	0.332	0.293	0.198	0.205	0.164	0.276	0.649
(14) POVERTY_WM	0.149	0.112	0.247	0.525	0.276	0.247	-0.008	0.185	0.090	0.577
(15) POVERTY_WW	0.349	0.214	0.192	0.563	0.267	0.487	-0.197	0.269	-0.092	0.544
(16) POVERTY_BM	0.006	0.046	0.130	0.370	0.090	0.066	-0.196	0.123	-0.244	0.061
(17) POVERTY_BW	0.114	0.364	0.161	0.298	0.303	-0.012	-0.247	0.243	-0.177	0.091
(18) WELFARE_WM	0.148	-0.073	0.015	0.327	-0.048	0.356	-0.089	0.091	-0.025	0.538
(19) WELFARE_WW	0.259	-0.051	-0.017	0.333	-0.115	0.494	-0.176	0.100	-0.154	0.479
(20) WELFARE_BM	0.160	-0.101	-0.067	0.207	0.122	0.393	0.191	0.082	0.264	0.454
(21) WELFARE_BW	0.159	0.042	-0.102	0.204	0.058	0.302	-0.085	0.148	-0.037	0.327

Table 3. Correlation Matrix of Variables (continued)

	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
(11) JOBLESS_WW	1.000										
(12) JOBLESS_BM	0.585	1.000									
(13) JOBLESS_BW	0.564	0.691	1.000								
(14) POVERTY_WM	0.453	0.519	0.438	1.000							
(15) POVERTY_WW	0.410	0.513	0.383	0.695	1.000						
(16) POVERTY_BM	0.096	0.344	0.092	0.431	0.366	1.000					
(17) POVERTY_BW	0.088	0.184	0.425	0.208	0.235	0.499	1.000				
(18) WELFARE_WM	0.408	0.493	0.384	0.439	0.430	0.114	-0.083	1.000			
(19) WELFARE_WW	0.352	0.522	0.384	0.317	0.678	0.158	0.001	0.738	1.000		
(20) WELFARE_BM	0.344	0.655	0.426	0.448	0.465	0.184	-0.224	0.623	0.552	1.000	
(21) WELFARE_BW	0.173	0.520	0.641	0.172	0.369	0.180	0.502	0.432	0.612	0.323	1.000

The PUMS information based on place of residence and place of work allows us to aggregate and compare the characteristics of city residents with those of city jobholders. The characteristics of city jobholders (regardless of their place of residence) reflect the attributes of jobs that are available in the city. We compared the educational distribution of all city jobholders with that of city residents aged 16 to 64 and not in school (among whites and among African Americans) to measure skill mismatch for these two racial groups (percent of city jobs held by persons with more than a high school education versus percent of out-of-school adult residents, by race, with more than a high school education). Positive values indicate that available jobs require education greater than that possessed by city residents of each race. We measured spatial mismatch by the average minutes of the one-way work commute of city residents for each racial group, computed from the PUMS files as well. While this is an imperfect measure of spatial mismatch, it does indirectly tap spatial separation of workers from jobs (including patterns of urban development) and workers' reliance on typically more time-consuming public transit.

We measured joblessness as the percent of persons not working, poverty as the percent below the poverty threshold (see table A-1), and welfare receipt as the percent receiving AFDC, supplemental security income, or general assistance income during 1989.<sup>6</sup> Since both the economic restructuring and welfare disincentive explanations apply primarily to city residents with less education and low potential wages, we constructed these measures based on out-of-school persons aged 16 to 64 with no more than a high school education. We determined the measures separately by race and gender.

## Results

Figures 2 and 3 present the results of the fully specified model for non-Hispanic whites and for non-Hispanic blacks. The path coefficients shown in the figures are unstandardized. Path coefficients can be expressed in either standardized or unstandardized forms (Bollen 1989); the standardized coefficient can be obtained

<sup>6</sup> With few exceptions, the census measure of public-assistance income excludes social security income, disability income, and hospital or other medical care vendor payments. General assistance includes cash payments administered at the state and local levels for low-income persons who do not qualify for AFDC or supplemental security income. Persons must show financial need and live in designated areas (or specific states). Terms used by states to refer to this program include relief, home relief, poor relief, and direct assistance.

Figure 2. Path Diagram for Non-Hispanic Whites

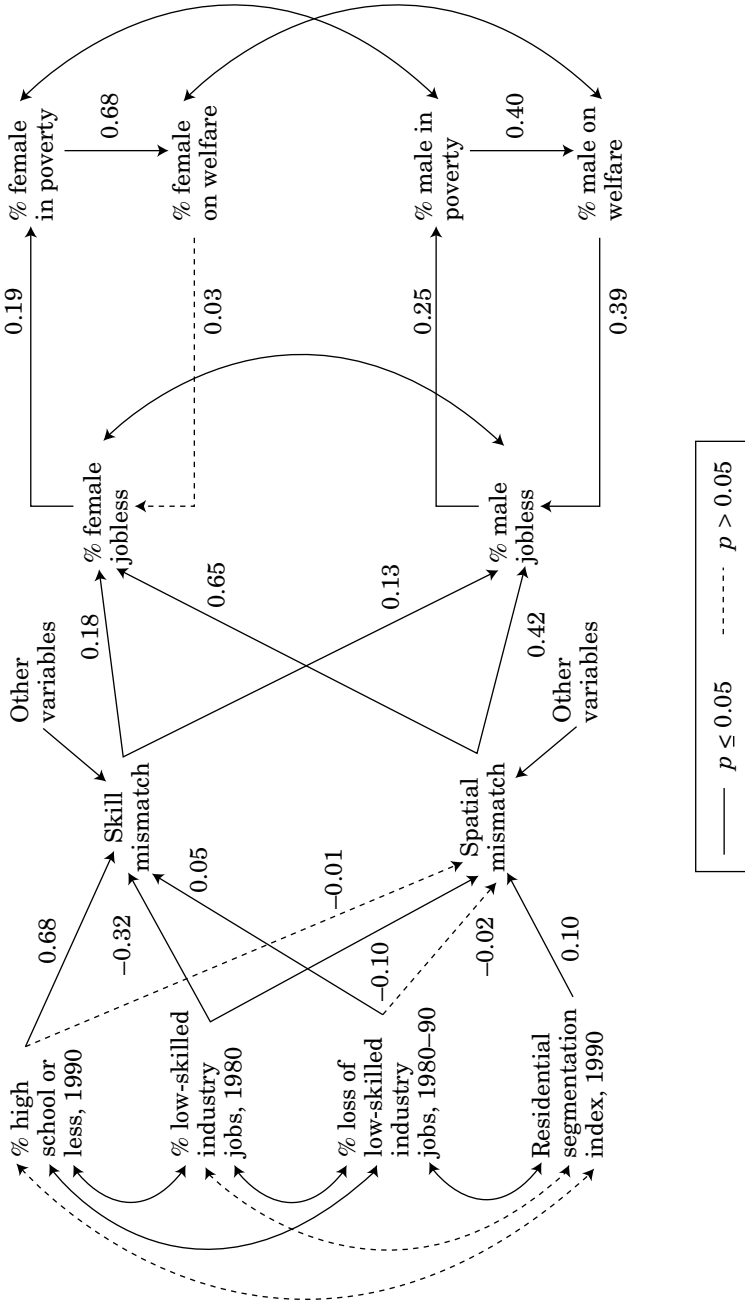
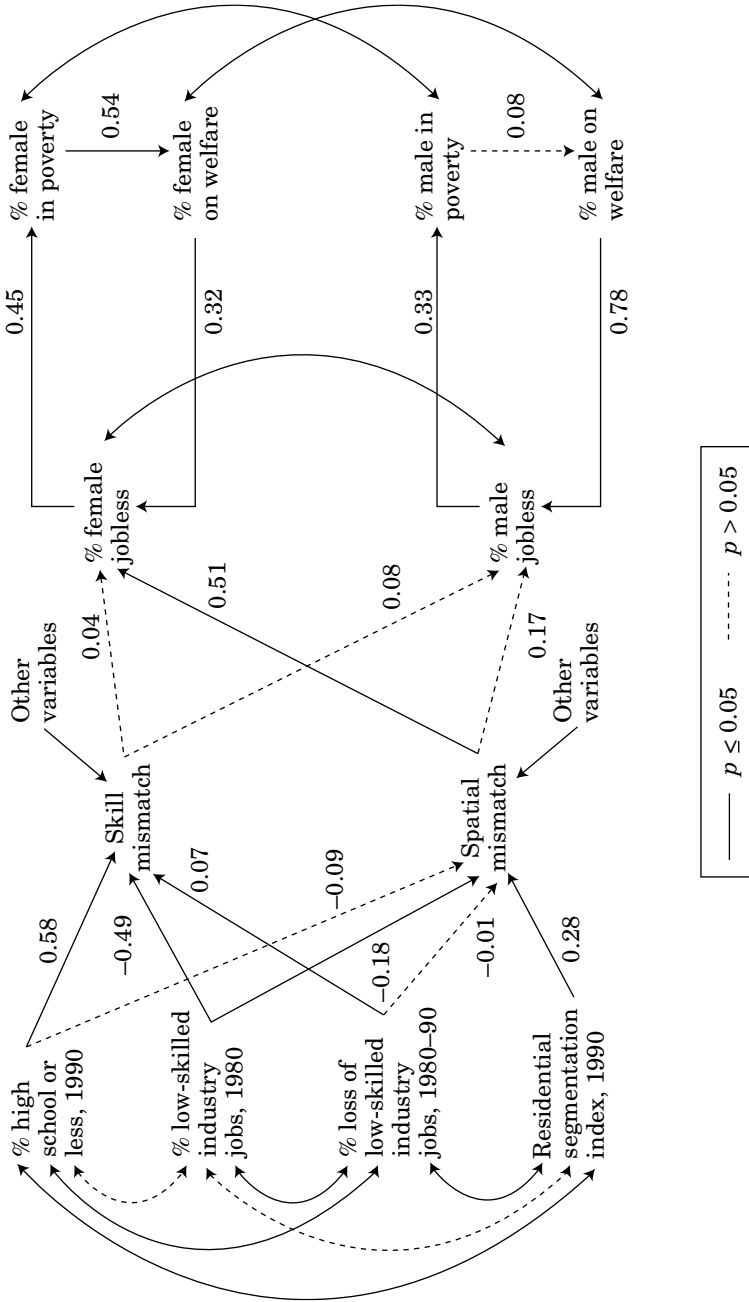


Figure 3. Path Diagram for Non-Hispanic Blacks



by multiplying the unstandardized coefficient by the ratio of the standard deviation of the independent variable to the standard deviation of the dependent variable. For group comparisons, such as ours between subgroups of race and gender, the unstandardized form is more desirable because differences in the magnitude of the standardized coefficients may be attributed to differences in variance of the variables between groups. In addition, the variance, and hence the standard deviation of a variable, is subject to sampling fluctuation. Thus, it increases instability of the standardized coefficients and presents problems, particularly for group comparison.

The *t*-values (significance tests) and coefficients of multiple determination ( $R^2$ ) along with the unstandardized path coefficients (tables 4 and 5) provide general support for both the urban economic restructuring and welfare disincentive perspectives. However, the relative importance of the two perspectives varies among the four race-gender groups, as will be elaborated later.

The structure and dynamics of the city job market have significant effects on skill and spatial mismatches. A larger base (proportion) of low-skilled jobs in 1980 decreases future skill mismatch, while loss of low-skilled jobs in the subsequent period (1980 to 1990) increases skill mismatch. The same pattern appears for whites and African Americans. Also, the extent of low-skilled jobs in the cities in 1980 significantly reduces spatial mismatch. The effect of a low-skilled job base and a low-skilled job loss on both skill and spatial mismatches is stronger for African Americans than for whites. This finding implies that urban economic restructuring has indeed had a more detrimental effect on job prospects for African Americans than for whites.

Apropos of human capital, low education level of city residents is strongly related to skill mismatch (as should be expected almost by definition) for whites as well as for African Americans. This strong relationship does not hold for spatial mismatch. Residential segregation also affects spatial mismatch for both racial groups; and again, as would be expected, it is much stronger for African Americans than for whites.

Continuing forward in the model, both skill and spatial mismatches have statistically significant positive effects on jobless rates of non-Hispanic white men and women. As for African Americans, while all four coefficients are in the expected direction, only female joblessness and spatial mismatch are significantly related, though powerfully so. These somewhat surprising

Table 4. Unstandardized Path Coefficients for Non-Hispanic Whites

	EDMATCH_W	SPMATCH_W	JOBLESS_WW	JOBLESS_WM	POVERTY_WW	POVERTY_WM	WELFARE_WW	WELFARE_WM
HSORLS_W	0.68 (13.64)	-0.01 (0.36)						
PCTLSJ80	-0.32 (-4.56)	-0.10 (-1.96)						
PCTLSJL	0.05 (2.14)	-0.02 (-1.02)						
SEGINDEX		0.10 (3.08)						
EDMATCH_W			0.18 (2.31)	0.13 (2.73)				
SPMATCH_W			0.65 (3.02)	0.42 (3.23)				
JOBLESS_WW				0.19 (2.31)				
JOBLESS_WM					0.25 (3.11)			
POVERTY_WW						0.68 (9.90)		
POVERTY_WM							0.40 (6.63)	
WELFARE_WW			0.03 (0.18)					
WELFARE_WM								
R <sup>2</sup>	0.80	0.20	0.19	0.31	0.09	0.18	0.42	0.29

Note: The t-value for each coefficient appears in parentheses beneath the coefficient.

Table 5. Unstandardized Path Coefficients for Non-Hispanic Blacks

	EDMATCH_B	SPMATCH_B	JOBLESS_B	JOBLESS_BM	POVERTY_BW	POVERTY_BM	WELFARE_BW	WELFARE_BM
HSORLS_B	0.58 (10.05)	-0.09 (-1.31)						
PCTLSJ80	-0.49 (-8.08)	-0.18 (-2.88)						
PCTLSJL	0.07 (2.97)	-0.01 (-0.32)						
SEGINDEX		0.28 (5.46)						
EDMATCH_B			0.04 (0.32)	0.08 (0.82)				
SPMATCH_B			0.51 (2.78)	0.17 (1.13)				
JOBLESS_BW					0.45 (3.65)			
JOBLESS_BM						0.33 (3.12)		
POVERTY_BW							0.54 (5.76)	
POVERTY_BM								0.08 (1.02)
WELFARE_BW								
WELFARE_BM								
R <sup>2</sup>	0.75	0.44	0.37	0.33	0.26	0.15	0.39	0.06

Note: The t-value for each coefficient appears in parentheses beneath the coefficient.

results suggest that less-educated inner-city whites are at least as sensitive to structural disarticulations in local job markets as their African-American counterparts are.

Of perhaps even greater interest and importance is the much stronger effect of spatial mismatch on joblessness among women of both races, compared to men. This finding would imply that increased distancing of jobs from city residents has had a greater impact on job prospects of inner-city women than on those of inner-city men. Because multiple family obligations (e.g., child care, housekeeping, grocery shopping, care for elderly or infirm relatives) fall disproportionately on women, they are likely to need shorter commutes or to be less willing to accept a long commute in the first place. Single female householders with young children (who make up the majority of urban poor) are especially likely to have temporal and spatial constraints that either restrict them to seeking jobs close to home (often part-time or at lower pay) or, for those lacking resources for domestic assistance, encourage them to stay out of the job market entirely (Organization for Economic Cooperation and Development [OECD] 1995).

The strong effect of spatial mismatch on female joblessness provides some indirect credence to Hayden's (1980) contention that urban areas, as spatially designed and serviced, can better accommodate men's daily routines than women's. Research consistently demonstrates that urban women depend on public transportation more than men do. Even when women are employed, their additional domestic responsibilities often require complex journeys to nonwork destinations and off-peak transport services (OECD 1995). Public transportation does not have the spatial and temporal flexibility of the private car, nor does it operate at the same frequency all day. Making women's job accessibility even more difficult is their avoidance of public transportation in dangerous areas of cities (where many reside), particularly for journeys after dark, out of fear of violence or harassment. Such mobility constraints no doubt factor into work disincentives for inner-city women. Together with the more complex travel patterns and domestic responsibilities of women, these constraints serve to limit their job choices, thereby differentially contributing to women's joblessness.

As both the urban economic restructuring and welfare disincentive paradigms would predict, there are significant direct effects of joblessness on poverty and of poverty on welfare. A higher jobless rate results in a higher poverty rate for all four race-gender groups. This linkage is particularly strong among African

Americans. A higher poverty rate, in turn, leads to a higher percentage of people receiving welfare, with the exception of African-American men, for whom we found a positive but statistically nonsignificant relationship.

The significant positive feedback effect running from urban welfare assistance rates to jobless rates provides key support for the welfare disincentive argument. We found statistically significant positive feedback effects for all race-gender subgroups except non-Hispanic white women. We also found that the feedback effect from welfare to joblessness is considerably stronger among African Americans than whites and, among African Americans, is particularly strong among men. When followed through the complete cycle, these results are consistent with the thesis that, by discouraging work, greater welfare program participation indirectly contributes to greater urban poverty.<sup>7</sup>

## Summary and policy implications

Our study used data for 67 of the largest U.S. cities to assess the two main paradigms seeking to explain urban joblessness and poverty. To do this, we developed and tested a fully specified model incorporating primary causal operators from each theoretical approach. In particular, we introduced specifications and measures for skill and spatial mismatches—which are pivotal to structuralists' explanations of urban joblessness and poverty—and for nonrecursive (feedback) effects of public assistance. These effects directly influence joblessness, indirectly influence poverty, and are central to welfare disincentive arguments.

Results from assessing the full-form model revealed that the economic restructuring and the welfare disincentive paradigms are not necessarily conflicting explanations of urban joblessness

---

<sup>7</sup> Some readers may wonder how reciprocal effects can be separated using cross-sectional data. Our model is frequently used in economics, but its basic assumptions are seldom mentioned in a substantive way (statistical assumptions are discussed). A system with reciprocal or feedback causation is essentially a dynamic system. Given time, the process of mutual interaction will settle, at least temporarily, in a particular pattern often referred to as an equilibrium. Our model assumed that the system has operated for a period long enough to lead to a stable pattern that can be captured from cross-sectional data (Heise 1975). The equilibrium pattern is a consequence of the relative strength among the interacting elements in the system. The purpose of the system parameter, or path coefficient estimation, is to determine the magnitude of causal impact of each element on the other, similar to a Markov process in demography.

and poverty. They may, in fact, operate side by side to reinforce joblessness and poverty. The relative strength of these two explanations varies by race and gender.

Resident education levels, urban industrial structure, and racial segregation all play roles in influencing skill and spatial mismatches for both African Americans and non-Hispanic whites. Urban industrial structure and racial segregation, however, have a greater impact on skill and spatial mismatches for African Americans than for whites. In turn, these mismatches, as well as welfare program participation, contribute to urban joblessness with relative effects again differing considerably by race and gender.

Skill and spatial mismatches, in general, have greater effects on joblessness among white residents than among African Americans, despite a quite strong association between spatial mismatch and joblessness for African-American women. Conversely, welfare program participation contributes more to joblessness among African-American city residents than among white residents, with the complete welfare-joblessness-poverty cycle strongest among female African Americans.

Although relationships between individual variables in the complete poverty cycle all operate in the same direction among the four race-gender groups, substantial differences exist in the magnitude of effects within each group. Joblessness contributed to poverty rates least among white women and most among African-American women. Such differences may be related to family structure, since it has been well documented that a lower percentage of African-American women have working spouses.<sup>8</sup> Poor women, regardless of race, typically have greater access to welfare assistance than poor men do, primarily because of the widely available AFDC program.

As noted, welfare program participation contributes more to joblessness among African Americans than among whites. This finding may be attributed to fewer job opportunities and lower

---

<sup>8</sup> While working is an attribute of an individual, the Bureau of the Census defines poverty in terms of the total income of the family to which the individual belongs, with the poverty cutoff adjusted for family size. Table A-1 presents the matrix for 1989 income poverty thresholds (used for 1990 census data analysis). These thresholds range from \$5,947 for single persons aged 65 or over to \$27,595 for nine-or-more-person families with one related child under age 18. When determining which income threshold to apply, the Bureau of the Census cross-classifies the previous year's family income with the current year's family size.

wages that discourage African-American welfare recipients from seeking employment alternatives. Higher rates of welfare program participation by men of both races contribute to greater joblessness and suggest that the small percentage of men who actually do receive welfare (see mean rates presented in table 2) may be more likely to be caught in a welfare-driven poverty cycle.

Given the considerable support we found for the urban restructuring and welfare disincentive paradigms, dismissing either would be premature. Indeed, the results imply that policy efforts to reduce inner-city unemployment and poverty should be simultaneously targeted (1) to mitigating spatial and skill mismatches and (2) to reforming welfare. In terms of current policy debates, conservatives must recognize that in America's cities today, housing segregation and other structural barriers to job access contribute significantly to unemployment and poverty. At the same time, liberals must recognize that welfare does discourage work and, for many, has become a poverty trap.

To reduce structural barriers and to improve mobility and job access by the inner-city disadvantaged, numerous policy prescriptions have been offered, including the following:

1. Attack both residential segregation and spatial access directly by dispersing housing assistance programs (such as the Gautreaux assisted-housing experiments in Chicago).
2. Provide tax incentives for affordable housing construction in the suburbs by the private sector.
3. Expand housing voucher programs as opposed to providing additional spatially fixed public housing in the inner city.
4. Develop networks in the inner city to provide information about job openings throughout the metropolitan area and beyond.
5. Partially underwrite more distant job searches by the inner-city unemployed.
6. Assist temporary needs-based relocation once a more distant job has been secured.
7. Strictly enforce existing fair housing and fair hiring laws.

8. Support public-private efforts to establish vanpools so unemployed inner-city residents can commute to suburban businesses facing worker shortages.
9. Upgrade the quality of public schools in the cities and help qualified disadvantaged residents obtain higher education.
10. Improve vocational education, apprenticeship, and co-op programs that smooth the school-to-work transition.

Each of the above prescriptions, of course, has its own complexities and difficulties of implementation. For example, programs to enhance skill levels and employment readiness of inner-city residents will do little to reduce unemployment and poverty unless there are real jobs available at the end of the training program. This means that labor supply and demand approaches must be better integrated and skills training must be directly connected to labor market needs. Moreover, basic skills training will be more meaningful and effective when taught with an actual job as a frame of reference and where both trainees and potential employers can see the link between skill development and job performance (Social Science Research Council 1993).

Much attention was directed in the late 1970s and throughout the 1980s to place-based economic development and jobs-to-people strategies to reduce spatial mismatches and regenerate distressed inner-city areas. Most did not succeed because private industry operates in a highly competitive environment that dissuades it from locating in areas where costs are higher and productivity is lower. Government subsidies, tax incentives, and regulatory relief contained in existing and proposed distressed-area regeneration policies are not nearly sufficient to overcome market-driven forces transforming urban economies and redistributing lower-skilled jobs from major cities. Unless these market factors are better appreciated and other barriers to inner-city business location (such as crime, safety, infrastructure, and quality of the work force) are addressed, jobs-to-people strategies and place-based economic regeneration efforts will continue to face a steep uphill battle.

One serious limitation to relying entirely on market-based policies, however, is that city blue-collar job loss and spatial mismatches probably did not result exclusively from racially neutral market decisions that had unforeseen and unintended consequences for African Americans. There is good reason to believe that a component—perhaps a substantial component—of geographical industrial restructuring detrimental to African

Americans was influenced by racial prejudice and stereotypes. For example, Cole and Deskins (1988) present evidence about the discriminatory siting and hiring practices of Japanese auto-parts manufacturers and suppliers who set up in the United States during the 1980s. These manufacturers and suppliers located in areas with few African Americans in the commuting range and hired fewer African Americans than would be expected from their local labor shed racial composition. Likewise, careful examination of the locations of economically booming outer suburban places indicates that they tend to be within the labor commuting shed of the metropolis, but at the farthest points from concentrations of poor African Americans (Kasarda 1995).

These observations reinforce the point that urban African-American joblessness is intertwined with continuing racial prejudice affecting employer site decisions and with other structural barriers not addressed in this article. Policies to combat discriminatory siting of business establishments as a consequence of racial bias, though not easy to either develop or enforce, should be considered.

The powerful effect of spatial mismatch on female joblessness suggests that gender bias in urban design and transportation services also needs to be considered. The deconcentration of metropolitan jobs, together with restricted transport choice, differentially impacts the least mobile—that is, less-educated inner-city women. These women are most likely to (1) depend entirely on public transportation, (2) travel close to home, (3) seek only jobs with short commute times, (4) avoid work that requires traveling through nearby dangerous areas (especially after dark), and (5) need to balance multiple domestic responsibilities with work schedules. As a result, job options for these women tend to be much more restricted spatially and temporally, often limiting them to low-paying and part-time work closer to home. These constraints no doubt pose strong work disincentives.

Policy makers and urban planners need to be aware that women typically have more complex travel patterns and accessibility needs than men, most of whom travel only to and from work. Public transportation, on which urban women disproportionately depend, poorly serves their multiple-destination needs. For instance, public transportation is limited (or absent) during off-peak periods and is designed primarily to serve radial routes into and out of the central business district rather than dispersed employment sites and nonwork sites such as shopping

and day-care facilities. When municipal budgets are strained, off-peak and secondary, nonradial public transit routes are usually the first to be cut. Improving accessibility of inner-city women to alternative work and nonwork sites should be a priority of any employment linkage strategy.

Perhaps the greatest policy challenge to facilitating the transition to work is overcoming spatial and temporal constraints that prevent women with children from accommodating their domestic and work responsibilities. Given the likelihood that women will continue to need to work closer to home, programs that promote self-employment including home work and nontraditional neighborhood employment should be pursued. For example, restrictions against public housing tenants operating businesses from their units should be relaxed. In addition, public-private partnerships to help women find and keep jobs within or near their neighborhoods should be encouraged.

One highly successful example of the latter is the Minneapolis Neighborhood Employment Network (Brinda 1994). This program is targeted to "hard to employ" residents, especially women, and helps them qualify for local jobs, both traditional and nontraditional, such as fire protection and law enforcement. The network provides neighborhood recruitment and job training, transportation assistance, access to child-care services, and counseling. In 1993, this community-based partnership helped more than 300 Minneapolis women enter their neighborhood work force while providing local employers with trained employees.

Policy reforms have also been proposed to reduce welfare disincentives to work (Ellwood 1988). Similar to those suggested to reduce structural barriers to work, they are not as uncomplicated or easy to implement as may appear on the surface. Most are based on the well-documented facts that the vast majority of people receiving welfare (particularly AFDC recipients) are capable of working and that women with infants and children are no longer expected to stay home with them. The reform receiving greatest attention in the mid-1990s is strict time limits on public assistance (two to five years), except for the disabled. Under these proposals, after a set period of time there will be no welfare checks, just paychecks.

Along with strict time limits, a series of financial rewards and penalties have been proposed to encourage skills training, job placement, and child support as well as to make working more remunerative than welfare:

1. Boost incomes of all full-time workers above the poverty line by expanding the earned-income tax credit.
2. Reimburse employers for their share of social security, Medicaid, etc., for welfare recipients they hire.
3. Provide employers with tax credits to pay above-poverty wages.
4. Mandate that all welfare recipients participate in skills training and job placement programs, including placement in public-sector jobs, if necessary.
5. Require young mothers with children to complete high school.
6. Hold biological fathers and deadbeat dads accountable for meeting child-support obligations and make strong efforts to collect payments.
7. Assist in the establishment of private day-care services owned and operated by former welfare mothers in low-income neighborhoods.
8. Lower the attractiveness of welfare relative to work by reducing the size of benefits, the range of assistance programs, and the ease with which they can be tapped.
9. Ensure that all government bodies, welfare agencies, and social workers continually reinforce the message that welfare is not an entitlement (if you are poor, you get money) or an alternative to work but entails a reciprocal obligation to become self-sufficient through education, responsible family behavior, and work.

The strong feedback effects from welfare rates to jobless rates among the less-educated in cities raise a major caution flag to those who believe the best way to help the poor is to increase the size and scope of public-assistance programs. While certain individual needs might be temporarily better met, expansion of the welfare program could well dissuade many from taking moderately or poorly paid jobs. Simply put, poor people may be poor, but they are not stupid. They make rational decisions about relative economic benefits, just as the more fortunate do. Thus, more generous transfer payments together with additional in-kind assistance programs would likely reduce work incentives and increase inner-city joblessness, while doing nothing to alter recipient attitudes that welfare as a way of life is acceptable.

**Table A-1. Poverty Thresholds in 1989 by Size of Family and Number of Related Children under 18 Years, in Dollars**

Size of Family Unit	Weighted Average Thresholds	Related Children under 18 Years										
		None	One	Two	Three	Four	Five	Six	Seven	Eight or More		
One person (unrelated individual)	6,310											
Under 65 years	6,451	6,451										
65 years or older	5,947	5,947										
Two persons	8,076											
Householder under 65 years	8,343	8,303	8,547									
Householder 65 years or older	7,501	7,495	8,515									
Three persons	9,885	9,699	9,981	9,990								
Four persons	12,674	12,790	12,999	12,575	12,619							
Five persons	14,990	15,424	15,648	15,169	14,798	14,572						
Six persons	16,921	17,740	17,811	17,444	17,092	16,569	16,259					
Seven persons	19,192	20,412	20,540	20,101	19,794	19,224	18,558	17,828				
Eight persons	21,328	22,830	23,031	22,617	21,738	21,738	21,084	20,403	20,230			
Nine persons or more	25,480	27,463	27,595	27,229	26,921	26,415	25,719	25,089	24,933	23,973		

Source: U.S. Bureau of the Census (1993).

## *Authors*

John D. Kasarda is Kenan Distinguished Professor of Business Administration and Director of the Frank Hawkins Kenan Institute of Private Enterprise at the University of North Carolina. Kwok-fai Ting is Assistant Professor of Sociology at the Chinese University of Hong Kong.

The authors are grateful for the comments and suggestions of Karen Danielsen and two anonymous referees on an earlier version of this article.

## *References*

Anderson, Martin. 1978. *Welfare: The Political Economy of the Welfare Reform in the United States*. Stanford, CA: Hoover Institution Press.

Banfield, Edward C. 1969. Welfare: A Crisis without "Solutions." *Public Interest* 16:89–101.

Bollen, Kenneth A. 1989. *Structural Equations with Latent Variables*. New York: Wiley.

Bound, John, and Richard B. Freeman. 1990. *What Went Wrong? The Erosion of the Relative Earnings and Employment of Young Black Men in the 1980's*. Cambridge, MA: National Bureau of Economic Research.

Brinda, Michael. 1994. The Minneapolis Neighborhood Employment Network. Paper presented to the OECD Conference on Women in the City: Housing, Services and the Urban Environment, 4–6 October, Paris.

Chow, Gregory C. 1983. *Econometrics*. New York: McGraw-Hill.

Cole, Robert E., and Donald R. Deskins, Jr. 1988. Racial Factors in Site Location and Employment Patterns of Japanese Auto Firms in America. *California Management Review* 3(1):9–22.

Danziger, Sheldon, and Peter Gottschalk. 1985. The Poverty of Losing Ground. *Challenge* 28:32–38.

Duncan, Greg J., and Saul D. Hoffman. 1991. Teenage Underclass Behavior and Subsequent Poverty: Have the Rules Changed? In *The Urban Underclass*, ed. Christopher Jencks and Paul E. Peterson, 155–74. Washington, DC: Brookings Institution.

Ellwood, David T. 1986. The Spatial Mismatch Hypothesis: Are There Teenage Jobs Missing in the Ghetto? In *The Black Youth Employment Crisis*, ed. Richard B. Freeman and Harry J. Holzer, 147–90. Chicago: University of Chicago Press.

Ellwood, David T. 1988. *Poor Support*. New York: Basic Books.

Ellwood, David T., and Lawrence H. Summers. 1986. Is Welfare Really the Problem? *Public Interest* 83:57–78.

Farley, John E. 1987. Disproportionate Black and Hispanic Unemployment in U.S. Metropolitan Areas. *American Journal of Economics and Sociology* 46:129–50.

Hargens, Lowell L. 1988. Estimating Multiequation Models with Correlated Disturbances. In *Common Problems/Proper Solutions*, ed. J. Scott Long, 65–83. Newbury Park, CA: Sage Publications.

Harrison, Bennett. 1974. *Urban Economic Development*. Washington, DC: The Urban Institute Press.

Hayden, Dolores. 1980. What Would a Non-Sexist City Be Like? Speculations on Housing, Urban Design and Human Work. *Signs* 5(3) supplement: 170–87.

Heise, David R. 1975. *Causal Analysis*. New York: Wiley.

Holzer, Harry J. 1991. The Spatial Mismatch Hypothesis. *Urban Studies* 28:105–22.

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.

Ihlanfeldt, Keith R., and David L. Sjoquist. 1990. Job Accessibility and Racial Differences in Youth Employment Rates. *American Economic Review* 80:267–76.

Ihlanfeldt, Keith R., and David L. Sjoquist. 1991. The Effect of Job Access on Black and White Youth Employment: a Cross-Sectional Analysis. *Urban Studies* 28:255–65.

Jencks, Christopher, and Susan Mayer. 1990. Residential Segregation, Job Proximity and Black Job Opportunity. In *Inner City Poverty in the United States*, ed. Lawrence Lynn, Jr., and Michael McGahey, 187–222. Washington, DC: National Academy Press.

Johnson, James H., Jr., and Melvin L. Oliver. 1992. Structural Changes in the U.S. Economy and Black Male Joblessness: A Reassessment. In *Urban Labor Markets and Job Opportunity*, ed. George E. Peterson and Wayne Vroman, 542–62. Washington, DC: The Urban Institute Press.

Johnston, John. 1984. *Econometric Methods*. New York: McGraw-Hill.

Judge, George G., W. E. Griffiths, R. Carter Hill, Helmut Lutkepohl, and T. C. Lee. 1985. *The Theory and Practice of Econometrics*, 2nd edition. New York: Wiley.

Kain, John F. 1968. Housing Segregation, Negro Employment, and Metropolitan Decentralization. *The Quarterly Journal of Economics* 82:175–97.

Kain, John F. 1992. The Spatial Mismatch Hypothesis: Three Decades Later. *Housing Policy Debate* 3(2):371–460.

Kasarda, John D. 1976. The Changing Occupational Structure of the American Metropolis: Apropos of the Urban Problem. In *The Changing Faces of the Suburbs*, ed. Barry Schwartz, 113–36. Chicago: University of Chicago Press.

Kasarda, John D. 1985. Urban Change and Minority Opportunities. In *The New Urban Reality*, ed. Paul E. Peterson, 33–67. Washington, DC: Brookings Institution.

Kasarda, John D. 1990. Structural Factors Affecting the Location and Timing of Urban Underclass Growth. *Urban Geography* 11:234–64.

Kasarda, John D. 1993a. Cities as Places Where People Live and Work: Urban Change and Neighborhood Distress. In *Interwoven Destinies: Cities and the Nation*, ed. Henry G. Cisneros, 81–124. New York: W. W. Norton.

Kasarda, John D. 1993b. *Urban Underclass Database: An Overview and Machine-Readable File Documentation*. Chapel Hill, NC: Frank Hawkins Kenan Institute of Private Enterprise.

Kasarda, John D. 1995. Industrial Restructuring and Changing Job Locations. In *State of the Union: America in the 1990s*, Vol. 1, ed. Reynolds Farley, 215–67. New York: Russell Sage.

Leonard, Jonathan S. 1987. The Interaction of Residential Segregation and Employment Discrimination. *Journal of Urban Economics* 21:323–46.

Lichter, Daniel T. 1988. Racial Differences in Underemployment in American Cities. *American Journal of Sociology* 93:771–92.

Maddala, G. S. 1977. *Econometrics*. New York: McGraw-Hill.

Massey, Douglas S. 1990. American Apartheid: Segregation and the Making of the Underclass. *American Journal of Sociology* 96:323–57.

McLanahan, Sara, Irwin Garfinkel, and Dorothy Watson. 1988. Family Structure, Poverty, and the Underclass. In *Urban Change and Poverty*, ed. Michael G. H. McGeary and Lawrence E. Lynn, Jr., 102–47. Washington, DC: National Academy Press.

Mead, Lawrence M. 1988. The Hidden Jobs Debate. *Public Interest* 91:40–58.

Mead, Lawrence M. 1989. The Logic of Workfare: The Underclass and Work Policy. *The Annals of the American Academy of Political and Social Science* 501:156–69.

Mooney, Joseph D. 1969. Housing Segregation, Negro Employment and Metropolitan Decentralization: An Alternative Prospective. *Quarterly Journal of Economics* 83:299–311.

Moss, Philip, and Chris Tilly. 1991. *Why Black Men Are Doing Worse in the Labor Market*. New York: Social Science Research Council.

Murray, Charles A. 1984. *Losing Ground: American Social Policy, 1950–1980*. New York: Basic Books.

Murray, Charles A. 1986. No, Welfare Really Isn't the Problem. *Public Interest* 84:3–11.

Noyelle, Thierry J. 1987. *Beyond Industrial Dualism: Market and Job Segmentation in the New Economy*. Boulder, CO: Westview.

Offner, Paul, and Daniel H. Saks. 1971. A Note on John Kain's Housing Segregation, Negro Employment, and Metropolitan Decentralization. *The Quarterly Journal of Economics* 191:147–60.

Organization for Economic Cooperation and Development. 1995. *Women in the City: Housing, Services, and the Urban Environment*. Paris, France.

Price, Richard, and Edwin S. Mills. 1985. Race and Residence in Earnings Determination. *Journal of Urban Economics* 17:1–18.

Rothenberg, Thomas J. 1990. Full and Limited Information Methods. In *Econometrics*, ed. John Eatwell, Murray Milgate, and Peter Newman, 88–94. London: Macmillan.

Social Science Research Council. 1993. *Persistent Urban Poverty: Integrating Research, Policy and Practice*. New York: Social Science Research Council.

Stanback, Thomas M. 1991. *The New Suburbanization: Challenge to the Central City*. Boulder, CO: Westview.

Straszheim, Mahlon R. 1980. Discrimination and the Spatial Characteristics of the Urban Labor Market for Black Workers. *Journal of Urban Economics* 7:119–40.

Tanner, Michael, Stephen Moore, and David Hartman. 1995. The Work vs. Welfare Trade-Off: An Analysis of the Total Level of Welfare Benefits by State. In the *Policy Analysis* series, No. 240, pp. 1–53. Washington, DC: Cato Institute.

U.S. Bureau of the Census. 1993. *1990 Census of Population and Housing. Public Use Microdata Sample: Technical Documentation*. Washington, DC.

Vrooman, John, and Stuart Greenfield. 1980. Are Blacks Making It in the Suburbs? Some New Evidence on Intrametropolitan Spatial Segmentation. *Journal of Urban Economics* 7:155–67.

Wacquant, Loic J. D., and William J. Wilson. 1989. The Cost of Racial and Class Exclusion in the Inner City. *The Annals of the American Academy of Political and Social Science* 501:8–25.

Weidenbaum, Murray. 1991. Beyond Handouts. *Across the Board* 28:49–52.

Wilson, William J. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago: University of Chicago Press.

Zax, Jeffrey S. 1990. Race and Commutes. *Journal of Urban Economics* 28:336–48.

Zax, Jeffrey S., and John F. Kain. 1991. Commutes, Quits and Moves. *Journal of Urban Economics* 29:1–13.