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SPATIAL ISOLATION AND WELFARE RECIPIENTS: WHAT DO WE KNOW?

By

Katherine M. O'Regan
John M. Quigley

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Spatial Isolation and Welfare Recipients: What do we know?*

by

Katherine M. O'Regan
Yale University
(kathy.oregan@yale.edu)
and

John M. Quigley**
University of California
Berkeley
(quigley@econ.berkeley.edu)

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** Corresponding author: John M. Quigley, Goldman School of Public Policy, University of California, Berkeley, CA 94720-7320 (ph: 510-643-7411)

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Abstract

Most inferences about the spatial isolation of welfare recipients are based upon residence patterns observed among the poor. This paper provides the first systematic examination of the spatial and transport conditions facing female-headed families on public assistance, comparing them with conditions facing the poor and the non poor. The analysis clearly documents wide differences in labor force attachment, job and residence patterns, commute modes and times by race, between the welfare and poverty populations. It also reveals substantial differences in the residence and workplace locations and commute patterns of public assistance households and large differences in access to automobiles. Worktrip mode varies enormously by auto access, and the incidence of very long journeys to work is much higher for those on public assistance. In contrast, a surprisingly large fraction of female welfare recipients walk to work. These data provide a national benchmark for current welfare reform experiences.

Keywords: welfare reform, auto access, spatial isolation.

I. Introduction

For more than three decades, the spatial context of minority and inner city workers has been a primary factor considered in analyzing their employment barriers and outcomes. The observed "spatial mismatch" between the residential locations of minority and poor households in American cities and the locations at which new jobs are concentrated lies at the center of a voluminous literature, one which documents longer commutes and higher unemployment rates for disadvantaged workers. (The burgeoning literature on this topic is reviewed by Kain [1992] and Holzer [1991]; for a recent review applied to welfare issues, see Ihlanfeldt and Sjoquist [1998].)

Establishing the causal link in this association has proved more difficult since worker's residence is itself endogeneous. However, more recent work analyzing the behavior of at-home youth (whose residences are presumably chosen by their parents) and analyzing the simultaneity of household residential and labor market choices confirms the basic contention: Spatial relationships play an important role in facilitating or inhibiting the operation of local labor markets. (This recent literature is reviewed by O'Regan and Quigley [1999].)

The evidence relied upon in assessing the spatial mismatch between jobs and residences contrasts racial minorities (and

occasionally the poor) with whites (and the non poor). This literature is often used to inform discussions of the employment aspects of welfare reform, and more recently, to estimate the likelihood that welfare reform will be successful. However, our knowledge of the actual spatial conditions facing welfare recipients is anecdotal at best. National data sets have not been used to examine this issue, in part due to limitations in identifying welfare recipients accurately.[1] Local data on welfare recipients lack the associated household and spatial data and may not be representative of other geographic aggregates. To date, our beliefs about the spatial isolation of welfare recipients are primarily based on residence patterns observed among the poor. Yet only a fraction of the poor are actually receiving any public assistance, and an even smaller fraction are eligible for the new federal welfare program, TANF (Temporary Assistance to Needy Families). These various groups differ systematically, no doubt, from each other.

This paper provides a systematic examination of the spatial conditions facing individuals and female-headed families with children on public assistance, comparing them with individuals whose incomes fall below the poverty line (the “poor”) and with

[1] The National Longitudinal Study of Youth is an exception to this, with newly collected geographic information. Unfortunately, this new data set includes neither commuting nor transit mode information.

the non poor. The analysis provides evidence directly on the spatial conditions of welfare recipients, rather than indirectly by observing those below the poverty line. By contrasting spatial patterns among TANF-eligible households with those of the non poor, the poor, and the public assistance populations, we evaluate the extent to which the existing literature can be used to assess accurately changes in spatial patterns induced by welfare reform.

Throughout the analysis, we rely upon Census data available through the Public Use Micro Sample (PUMS). This has the considerable advantage of uniform national coverage of public assistance, poor, and non poor households and individuals. As indicated above, however, no data set is ideal for this analysis, and even the PUMS has certain drawbacks. These are noted below.

The analysis clearly documents differences in labor force attachments, job and residence patterns, auto access, commuting modes, and commuting times, by race, between the TANF-eligible population and the other groups.

II. Comparative Analysis

A. The Public Use Data

Our analysis relies on adults (those 16 years of age or older) drawn from the Public Use Micro Sample (PUMS), a one-

percent sample of the U.S. population drawn in the 1990 U.S. Census. There are two drawbacks to using the PUMS to analyze the welfare population -- distinguishing AFDC recipients from the recipients of other forms of public assistance and the coverage and accuracy of the Census for this segment of the population.[2] The first problem arises from the definition of public assistance recipients used by the Census, which includes recipients of AFDC, Supplemental Security Income (SSI), and General Assistance (local GA). For an analysis focused on welfare reform, this category is too broad. However, this broader group is also more representative of the population affected by the recent PROWA legislation (i.e., those affected by "The Personal Responsibility and Work Opportunity Act of 1996") and changes in the food stamp program. We focus on recipients of all forms of public assistance but pay special attention to female recipients with children under 16 years of age (i.e., AFDC and TANF populations).[3] For our sample-year, more than 92 percent of the national AFDC caseload consisted of female-headed households (U.S. Congress, House of Representatives, Committee on Ways and Means, 1991). We are

[2] For a detailed discussion of the issues in using the PUMS to analyze public assistance recipients, see Van Hook et al., 1996.

[3] Throughout this paper the term "public assistance recipient" refers to the broader category while "welfare recipient" refers to the narrower category of females with children receiving public assistance.

unable to address the problem of census coverage directly, but we note that in aggregate, the PUMS undercounts those on public assistance, and does so in a systematic way.[4]

B. Descriptive Analysis

To begin, Table 1 presents basic information on the one-percent PUMS sample of about 1.5 million records on adults. About 87 percent of the adult population live in households whose income exceeds the poverty line. About 13 percent live in poverty households, and more than 3 percent of the sample receive some form of public assistance.

Blacks represent about 12 percent of the adult population, but about 26 percent of the poor and of those on public assistance. Women comprise about 70 percent of the public assistance population; those with very young children are almost a quarter of the public assistance population. The one-percent public use sample includes about 22,000 observations on adult women with children sixteen years or younger receiving public assistance.

[4] Specifically, with respect to AFDC and GA recipients, because the PUMS defines a public assistance recipient as one who receives assistance *at any time* in the preceding year, short-term recipients are more highly represented in PUMS than in monthly caseload data. Younger recipients, those with fewer children, and minorities are all under represented in national PUMS data relative to local caseload data.

There are substantial differences in labor force status, employment, and auto access between the poor and those on public assistance. More than 61 percent of poor adults are in the labor force and a third are employed, but only 26 percent of those on public assistance are in the labor force; 17 percent are employed. Only five percent of non poor adults lack access to an automobile while 31 percent of the poor and 41 percent of the public assistance population lack "auto access."[5]

The original analyses of the spatial mismatch hypothesis were motivated by the post World War II decentralization of employment and the concern that minorities were being left behind -- due to housing discrimination and exclusionary zoning. Over the past thirty years, this trend in job decentralization has continued. While there has been a similar movement in residential location, among black and minority households residential adjustment has not matched the movement of jobs (O'Regan and Quigley, 1999).

Table 2 reports on the centralization of these groups; it presents information on the residences and workplaces of the employed adults in the four populations. For each racial group examined, the residences of the poor are less centralized than the residences of the non poor. This is an artifact of the

[5] Individuals have "auto access" if they are living in a household in which one or more vehicles which could be used for

focus on the *working* poor rather than the entire poverty population. The employment rate of the non poor is higher in the central city, but for the poor it is lower in the central city. Among the total population, the residences of the poor are more centralized than the residences of the non poor.

Minority residences and workplaces are considerably more centralized than are those of whites for both the poor and non poor. This racial pattern is stronger among public assistance recipients and among female public assistance recipients with children. Among female-headed families on public assistance, the concentration of working black and Hispanic women living in central cities is even more pronounced. In contrast, the fraction of working white females on assistance with children who live in the central city is less than half as large as the fraction of non poor white workers who live in the central city.

However, there are clear racial differences in these patterns between the poor and those on public assistance. Consider female public assistance recipients with children: both black and Hispanic recipients are more centralized in their workplaces and residences than are minority poor. White recipients, however, are less centralized, particularly in their residences. This suggests that reliance on observed patterns

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commuting to work are “available.”

among the poor to infer patterns among welfare recipients yields inaccurate racial comparisons.

The last column in Table 2 indicates the relative centralization of jobs and residences. Ratios close to one indicate a balance between the centralization of jobs and the centralization of residences. Regardless of poverty or welfare status, the jobs-to-workers ratio for white adults is generally balanced, or else it shows a greater share working in the central city than living there. The opposite is true for minorities. Even among non poor minorities, the share working in the central city is somewhat lower than the share living in the central city, indicating a net commuting flow to the suburbs. This commuting flow is much larger among the poor and those on public assistance.[6]

These rough comparisons of the centralization of workers and their worksites suggest the kinds of obstacles to increased employment of those on public assistance presented by urban space. Other evidence (see, for example, Kasarda, 1995 and Holzer, 1996) suggests that secular growth in those jobs "suitable" for those on public assistance has been larger in the urban periphery. Access to these jobs by the more centralized

[6] Note also that the sample sizes for employed women on public assistance with children are small -- only about 4,100 individuals throughout the entire U.S. are reported in the Public Use Sample.

welfare recipients requires either automobile travel or adequate public transit.

Table 3 reports the percentage of individuals without automobile access for these same categories -- the non poor, the poor, adults on public assistance, and females with children on public assistance -- separately by residential location and by current employment status. Note that this table reports car *access* rather than *ownership*. Having access to a car –- that is, living in a household in which an auto is available for commuting –- is more prevalent than auto ownership, particularly among the poor.

Within each category, there are large racial differences in access to autos. Minorities, but most notably blacks, have much lower access to cars than do whites. Non poor blacks are almost three times as likely as whites to lack access to a car. There are similarly large differences by residential location.

There are especially large differences in access to automobiles between non working blacks on public assistance and black females with children on public assistance. For the U.S. as a whole, 56 percent of non working blacks on public assistance lack access to an auto. Among black females with children, the rate is almost 69 percent. Among suburban blacks on public assistance who do not work, 40 percent lack auto access; among black females with children in the same

circumstances, more than 60 percent lack access to an automobile.

Employment status is strongly associated with automobile access, although racial differences in auto access persist even after controlling for employment status and location. More than one-third of blacks currently working (and more than half of blacks currently not working) do not have access to a car. Car access among welfare recipients is even lower. More than 40 percent of non working public aid recipients have no access to a car.

A contributing factor to the differential auto access of welfare households is the set of eligibility rules under the AFDC program in effect at the time these data were gathered. In contrast to the federal regulations limiting the assets of welfare recipients in effect through 1996 under the AFDC program, states are now free to revise or eliminate asset limits as part of benefit-qualification rules for TANF recipients. Many states have extended asset limits, permitting recipients to own cars worth thousands of dollars; some states have removed asset limits altogether. Over time, we should expect that car ownership among transfer recipients will increase. However, given the extreme deprivation among the welfare population, auto ownership and access to autos will certainly be lower for recipients of aid than for the average poor person.

Even after controlling for location, employment status, poverty status and welfare receipt, the remaining racial differences are striking. For example, while 29 percent of non working white women on welfare have no access to a car, 43 percent of *working* black women on welfare lack access. In fact, within every category, *non working* whites have greater access to cars than do *working* blacks.

Table 4 examines further the linkage between automobile access and employment, focusing on prime-age workers. The first column reports employment rates for non poor individuals. Although there are differences in employment rates between those with access to autos and those without access, differences for the non poor are relatively small. Among the poor, however, and especially among those on public assistance, differences in employment rates by auto access are quite large indeed. Among the poor, employment rates are forty percent higher for adults who have access to an automobile for commuting. Among those on public assistance, employment rates are roughly twice as high for those with access to automobiles than for those without access. The difference is even more pronounced for females on public assistance with children.

Of course, this strong association between auto access and employment need not imply a causal relationship at all, but the strength of the association is surprising. However, recent work

by Raphael and Rice (1999) provides convincing statistical evidence that the association is causal. Moreover, there is other informal evidence that auto ownership affects employment and training outcomes. For example, in their study of Detroit, Danziger and Holzer (1998) found that the unemployed with cars searched more widely for jobs than did the unemployed without cars. In a recent evaluation of an employment program for non custodial parents, the only characteristic found to exert a systematic effect on employment outcomes was car ownership (Brock et al., 1997). And several studies of the factors affecting job loss and welfare entry have established that transportation problems contribute to these outcomes.

Table 5, which presents car access and employment status by residence and workplace location, provides some insight into the role of "choice" in car access and residential locations. Residence and workplaces are reported in two categories: the central city and the suburban ring.[7]

Among those with cars, the fractions representing the spatial distribution of the poor and non poor are remarkably similar. There are differences, especially in the suburbanization of central city workers, but they are modest.

[7] For ease of presentation we exclude "intermediate" locations (PUMAs) not reported as either a central city or a suburban location in the Public Use Micro Sample of the Census. Specifically, we exclude residence and work place Public Use Microdata Areas (PUMAs) which span

When we examine those without cars, however, we find much larger spatial differences. Non poor without cars are more likely to reside and to work in the central city than are the poor. This higher centralization for the non poor suggests that the absence of car may be a consumption choice dictated by preferences, not resource limits.

Regardless of income and access categories, however, minorities -- particularly blacks -- are more centralized in both their residence and work locations. Blacks are noticeably less likely both to live and to work in the suburbs. Non poor blacks with cars are twice as likely to live and work in the central city as they are to live and work in the suburbs. In fact, poor whites are more likely to live and work in the suburbs than are *non* poor blacks. This pattern is suggestive of quite limited residential choices for blacks. The workplace-residence pattern of minority workers on public assistance appears similar to that of their poor counterparts, but the lower centralization of white welfare workers continues to distinguish them from the white poor population.

For all groups (although less so for the non poor without cars), commutes involving suburban origins or destinations are very important, making up the majority of worktrips, even among

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central city and suburban locations. (This has no appreciable effect on any of the conclusions we draw.)

most groups without access to cars. This affects the time spent commuting, an important component of access to jobs.

Table 6 reports the average one-way commuting time for workers by category. Note that, according to conventional location theory, richer households will typically commute longer distances to purchase more spacious housing at cheaper peripheral locations. These differences in commute times between the poor and non poor are confirmed in Table 6, but the differences are quite modest. There are larger differences in commute times between those with auto access and those without. Differences in one-way commutes are three to five minutes for all four groups: the non poor, the poor, all adults on welfare, and females with children on welfare. Controlling for auto access, commute times are slightly longer for welfare recipients than for the poor of the same race.[8] In fact, unlike the poor, white and black welfare recipients with access to cars make *longer* commutes than do the non poor. And within each category, average commute times are longer, sometimes much longer, for minorities than for whites.

Commuting times vary substantially by mode of travel to work. Table 7 summarizes some of these relationships. It reports the fraction of workers commuting by public transit,

[8] Again, these differences suggest caution in using data on the poor to assess patterns among welfare recipients.

private auto, and walking, together with the average commute times for each group of workers. The table documents a number of striking patterns. First, reliance on public transit is five to ten times as large for those without auto access as it is for those with access to autos. Second, among those with access to automobiles, eighty to ninety percent commute by private vehicle. Third, even after controlling for access to a car, minorities are much more reliant on public transit than are whites. Among those without access to a car, much of the difference is explained by the greater reliance of whites on walking. Fourth, there is a surprisingly large incidence of walking to work among those without access to an auto, especially among the poor and those on welfare. The fraction of those walking to work is especially large among carless females on public assistance with children -– 31 percent among white women. Presumably, these factors vary with the spatial configuration and transport systems of different metropolitan areas (MSAs).

When the location of worksites is taken into account, the average commute times for those not commuting within the central city or the suburbs can be quite long. Among workers who commute from central city to suburban worksites, one-way commutes of 45 minutes to an hour are common. Of course, for

the poor and those on public assistance, these long commutes are also associated with jobs paying very low wages.

Several studies, using GIS systems in conjunction with local data sets, have found that low skill jobs for welfare workers are located disproportionately in the suburbs and are not public transit accessible (Leete and Bania, 1996; Coulton, Leete and Bania, forthcoming; Rich and Coughlin, 1998). In an Urban Institute national study of employers with entry level jobs, 39 percent stated they are not public-transit accessible (Regenstein, Meyer and Hicks, 1998). Furthermore, Leete and Bania estimated that fewer than twenty percent of entry level job openings would be within a 45 minute one-way public transit commute for centralized welfare recipients. Even if a "reasonable" commute time is estimated to be 80 minutes (one-way), centralized welfare recipients do not have access to the majority of openings. [9]

The difficulties of the poor in relying upon public transit are exacerbated by the types of jobs they hold. Our tabulations of these data (not presented here) indicate that poor workers and those on welfare are about half again as likely to commute

[9] [9] Even these low skill jobs may not be easily attainable, given the skills employers are seeking. Using data on four large cities (including Boston and Los Angeles), Holzer (1996) estimates that as little as 5 to 10 percent of central city jobs held by those without a college education appear “accessible” to the least skilled in the workforce.

outside the normal rush hour. A large percentage of the poor who take public transit also travel off peak. And for part-time workers, the incidence of off-peak commuting is even larger. [10] Off-peak commutes by public transit take 35 percent longer, on average.

III. Conclusion

Our comparative analysis of the conditions facing welfare recipients documents that the spatial mismatch between jobs and residences is at least as extreme for welfare recipients it is as for the poor. Most striking among the findings is the lack of access to automobiles among the welfare population, and the large differences in almost every employment and commuting characteristic associated with this condition. The likelihood that an individual is employed -- by poverty, public assistance status, and race -- varies a lot by auto access.

Worktrip mode also varies enormously by auto access -- transit usage by five to ten times and walking by five times. The incidence of very long journeys to work is high among those on public assistance, especially those commuting to non central workplaces. Furthermore, there are large fractions of reverse commuters -- even among public transit riders, and especially

[10] This is consistent with Presser and Cox (1997), who found greater prevalence of nonstandard work hours and days in a

among welfare recipients. Finally, the incidence of off-peak travel is higher among workers on public assistance, as is the incidence of part-time employment. In contrast, a surprisingly large fraction of female welfare recipients with children walk to work. Almost a third of the employed welfare mothers without access to an automobile walk to work!

To the extent that the spatial mismatch influences the employment outcomes of the least mobile, welfare recipients face more formidable obstacles to employment than the low-skilled population as a whole. Furthermore, a growing body of evidence suggests that exactly those areas experiencing job growth -- the suburbs -- are those in which employers are less likely to hire minority workers due to discrimination and the impact of distance on recruiting methods (Holzer, 1996; Holzer and Ihlanfeldt, 1996; Holzer and Ihlanfeldt, 1998; Stoll, 1999). Gaining access to these jobs may particularly difficult for centralized minority welfare recipients.

All of these factors suggest that an employment “solution” to current high levels of welfare dependency must rely heavily upon commuting by private auto, even -- or perhaps especially -- among welfare recipients. As time passes, and meeting employment goals requires moving deeper into the welfare

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sample of lower-educated working mothers.

recipient pool, we are increasingly likely to encounter exactly those recipients facing the greatest of these barriers.

In addition, this analysis also finds systematic behavioral differences between the poor as a group (often used as a proxy for welfare recipients) and welfare recipients as a group. These findings suggest some caution in extrapolating from the experience of poverty households to the welfare population. Policy assessments that rely on the more readily available data on the poor may be misleading.

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TABLES

Table 1
Summary Information on U.S. Adult Population by Poverty Status and Public Assistance, 1990
(Percent of Population)

		Poverty Status		Public Assistance Recipients	
	US	Non Poor	Poor	All Adults	Females with Children
Percent of Population	100.0	86.8	13.2	3.3	1.0
White	75.4	79.1	51.7	55.0	43.3
Black	11.6	9.3	25.7	27.1	35.7
Hispanic	9.3	8.1	17.5	12.9	16.6
Female	51.3	50.6	57.2	69.5	100.0
With Children	16.6	16.4	21.6	28.6	100.0
With Children under 6	12.0	11.9	14.9	23.3	57.4
In Labor Force	73.1	77.1	61.3	25.7	36.9
Employed	60.8	65.9	32.9	16.9	22.7
Looking for Work	3.2	2.6	6.6	8.3	14.9
With Auto Access	89.1	94.6	69.0	59.3	56.9
Sample Size	1,531,028	1,297,089	233,939	76,715	21,920

Source: U.S. Bureau of the Census, Census of Population and Housing, 1990, Public Use Microdata Sample, U.S. [machine readable data files], prepared by U.S. Bureau of the Census, Washington, D.C.: the Bureau [producer and distributer], 1992.

Table 2
Residence and Workplace of Employed Adults by Poverty, Public Assistance Status, and Race 1990

	PUMS Sample Size	Percent Working in Central City	Percent Living in Central City	Ratio of Central City Jobs to Workers
Poverty Status				
Non Poor				
White	572,552	34.10	29.90	1.14
Black	64,478	47.20	49.15	0.96
Hispanic	67,043	35.10	37.30	0.94
Poor				
White	34,754	21.40	21.60	0.99
Black	9,454	32.30	37.15	0.87
Hispanic	10,150	34.90	42.60	0.82
Public Assistance				
All Adults				
White	8,008	18.95	18.05	1.05
Black	2,036	36.10	41.35	0.87
Hispanic	1,200	33.00	40.30	0.82
Females with Children				
White	2,870	19.12	14.30	1.34
Black	1,131	44.26	48.90	0.91
Hispanic	504	39.49	53.70	0.74

Source: See Table 1.

Table 3
Percent of Individuals without Automobile Access
by Residential Location, Poverty, Public Assistance Status, and Race, 1990

	US		Central City		Suburb	
	Working	Not Working	Working	Not Working	Working	Not Working
Poverty Status						
Non Poor						
White	2.4	7.6	8.6	18.2	1.3	5.9
Black	13.0	21.9	21.2	30.8	6.6	12.0
Hispanic	8.9	13.4	17.9	30.6	4.7	9.1
Poor						
White	9.5	25.5	20.5	40.8	6.7	22.4
Black	34.4	53.3	44.9	62.2	25.5	43.2
Hispanic	20.4	37.1	30.0	51.7	14.9	28.4
Public Assistance						
All Individuals						
White	11.1	27.3	22.6	41.9	6.9	20.7
Black	40.6	56.0	51.0	63.9	28.4	40.4
Hispanic	25.6	46.7	37.9	61.2	17.7	37.0
Females with Children						
White	11.3	29.1	25.2	45.8	7.8	24.3
Black	43.0	68.9	50.6	76.0	33.0	60.5
Hispanic	27.1	55.3	40.3	70.2	19.8	35.9

Source: See Table 1.

Table 4
Percent of Adults Working, Ages 18 to 55, by Poverty, Public Assistance Status, Access to Automobile and Race, 1990

	Poverty Status		On Public Assistance	
	Non Poor	Poor	All Individuals	Females with Children
Percent				
With Access to Auto				
White	82.2	50.0	33.9	32.9
Black	79.5	43.7	24.6	27.3
Hispanic	76.2	48.9	26.7	22.1
Without Access to Auto				
White	74.6	31.0	15.8	14.0
Black	67.6	25.0	12.7	12.5
Hispanic	69.9	31.1	10.8	9.0
Sample Size				
With Access to Auto	775,892	93,231	27,771	12,106
Without Access to Auto	37,447	29,621	14,248	8,250

Source: See Table 1.

Table 5
Residential and Employment Distribution of Workers, by Poverty and Public Assistance, Access to Automobiles and Race, 1990

	Work In:	With Access to Auto Reside In: Central city	With Access to Auto Reside In: Suburb	Without Access to Auto Reside In: Central city	Without Access to Auto Reside In: Suburb
Poverty Status					
A. Non Poor					
White Workers	central city	11.03	11.35	48.33	5.66
	suburb	2.48	23.09	3.51	11.37
Black Workers	central city	29.63	10.40	59.33	4.54
	suburb	5.37	14.27	5.76	6.84
Hispanic Workers	central city	24.42	9.81	61.17	3.61
	suburb	7.38	22.96	7.75	9.91
B. Poor					
White Workers	central city	13.78	6.28	35.76	3.36
	suburb	2.91	18.97	2.85	11.41
Black Workers	central city	29.16	5.16	46.48	2.51
	suburb	4.73	11.43	4.81	8.07
Hispanic Workers	central city	29.04	6.23	53.83	3.37
	suburb	8.18	18.73	7.45	11.49
Public Assistance					
C. All Adults					
White Workers	central city	10.51	7.97	26.32	5.05
	suburb	2.17	22.94	4.42	14.49
Black Workers	central city	30.69	6.48	47.33	2.09
	suburb	5.22	11.96	5.17	8.53
Hispanic Workers	central city	26.09	4.73	51.93	2.86
	suburb	7.35	18.50	4.71	9.91
D. Females with Children					
White Workers	central city	9.48	6.65	25.06	4.16
	suburb	1.81	21.40	2.32	13.16
Black Workers	central city	31.79	6.56	43.62	2.94
	suburb	5.22	10.07	5.54	8.72
Hispanic Workers	central city	24.63	5.74	49.90	1.32
	suburb	5.12	17.33	4.99	9.95

Source: See Table 1.

Table 6
Average Journey to Work
by Poverty, Public Assistance Status, Access to Automobile and Race, 1990
(one-way commutes, in minutes)

Minutes of Commuting	Poverty Status		Public Assistance	
	Non Poor	Poor	All Individuals	Females with Children
With Access to Auto				
White Workers	17.74	16.66	18.99	19.10
Black Workers	21.30	20.65	22.86	21.30
Hispanic Workers	23.33	21.99	22.55	20.70
Without Access to Auto				
White Workers	22.16	20.50	21.39	17.50
Black Workers	28.74	25.57	25.76	27.10
Hispanic Workers	30.75	28.04	28.09	26.20
Sample Sizes				
With Access to Auto	291,031	45,714	9,416	3,588
Without Access to Auto	27,287	8,119	1,803	937

Source: See Table 1.

Table 7
Worktrip Mode and Average Commute Time
By Poverty, Public Assistance Status, and Race, 1990
(one-way commutes, in minutes)

	Public Transit		Private Vehicle		Walking	
	Percent	Commute Time	Percent	Commute Time	Percent	Commute Time
A. Non Poor						
With Access to Auto:						
White	2.50	44.58	90.40	22.32	2.40	8.51
Black	8.70	42.31	86.90	23.17	2.10	12.68
Hispanic	6.40	40.12	86.60	22.81	3.00	11.34
Without Access to Auto:						
White	34.70	36.08	38.50	22.15	18.00	13.66
Black	55.20	40.67	29.20	23.39	10.80	15.55
Hispanic	51.80	40.55	27.20	25.47	14.60	14.67
B. Poor						
With Access to Auto:						
White	2.30	33.39	81.70	19.47	6.20	8.65
Black	7.90	38.53	83.20	20.24	4.00	15.40
Hispanic	7.50	37.59	79.70	21.64	5.50	12.98
Without Access to Auto:						
White	21.80	33.53	30.90	21.35	28.00	14.00
Black	40.60	38.61	34.20	20.08	15.70	15.98
Hispanic	43.00	39.18	26.90	25.01	18.00	14.85
C. On Public Assistance						
With Access to Auto:						
White	5.30	37.79	83.80	20.77	3.80	10.74
Black	10.60	42.21	82.20	20.62	3.40	9.49
Hispanic	8.10	38.79	82.40	21.62	4.60	13.74
Without Access to Auto:						
White	28.80	34.73	30.80	20.13	27.20	12.95
Black	48.10	38.31	28.10	19.66	15.50	14.77
Hispanic	45.40	40.39	22.40	20.04	22.60	17.51
D. Females on Assistance with Children						
With Access to Auto:						
White	1.40	42.94	90.40	19.29	3.20	7.49
Black	9.20	41.00	86.10	19.73	2.30	7.06
Hispanic	5.50	41.33	85.40	19.57	4.70	14.35
Without Access to Auto:						
White	20.20	29.80	35.90	18.15	31.00	12.31
Black	49.40	38.94	27.90	18.85	15.00	15.29
Hispanic	37.70	40.31	28.50	17.63	27.80	18.20

Source: See Table 1.